



POST-ASSESSMENT FINDINGS: EHEALTH PILOT FOR FIELD, FACILITY and NGO- BASED WORKERS BANGLADESH KNOWLEDGE MANAGEMENT INITIATIVE

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স্বাস্থ্য শিক্ষা বুরো, স্বাস্থ্য অধিদপ্তর
স্বাস্থ্য ও পরিবার কল্যাণ মন্ত্রণালয়



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Abbreviations

ANC	Antenatal Care
BCC	Behavior Change Communication
BKMI	Bangladesh Knowledge Management Initiative
eHealth	Electronic Health
eLearning	Electronic Learning
eToolkit	Electronic Toolkit
FP/RH	Family Planning/Reproductive Health
FW	Field Worker
FWA	Family Welfare Assistant
GoB	Government of Bangladesh
HA	Health Assistant
HPN	Health, Population, and Nutrition
IPCC	Interpersonal Communication and Counseling
IUD	Intra-Uterine Device
JHU·CCP	John Hopkins Bloomberg School of Public Health, Center for Communication Programs
K4Health	Knowledge for Health
LAM	Long-Acting Methods
MNCH	Maternal Newborn and Child Health
MoHFW	Ministry of Health and Family Welfare
PNC	Post-Natal Care
QC	Quality Control
RH	Reproductive Health
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
UHC	Upazila Health Complex

1. BACKGROUND

1.1 Implementation of the eHealth Pilot

In order to facilitate knowledge capture and information sharing among key stakeholders, BKMI under the global K4Health project rolled out an eHealth pilot developed for use by community, facility and NGO-based workers in Bangladesh. The objectives of this eHealth initiative were as follows:

- Improve **access** to FP/RH, nutrition, and MNCH resources.
- Improve **worker** knowledge, attitudes, and practice in FP/RH, nutrition, and MNCH.
- Improve **client** knowledge, attitudes, and practice in FP/RH, nutrition, and MNCH.
- **Strengthen capacity** of workers to deliver eHealth the interventions.

With its previous experience in other projects that focused on innovative technologies to improve health outcomes, Eminence was given a subcontract by JHU-CCP to conduct the eHealth pilot . Tasks under this project included:

- **Pre-assessment** of workers' FP/RH, nutrition and MNCH needs and existing knowledge, communication, and technology skills. This pre-assessment also included an assessment of clients' behavioral health intentions.
- **Orientation** of the workers to the eHealth BCC digital resources (eToolkit and eLearning courses);
- **Monitoring** of the eHealth digital resource deployment; troubleshooting for needs and problems of workers in project communities; and
- **Post-assessment** of workers' FP/RH, nutrition and MNCH needs and knowledge, communication and technology skills, and communication skills. This post-assessment also included an assessment of behavioral intentions of clients
- eLearning course certification of workers
- Collection and inventory of all technology equipment used for deploying eHealth BCC digital resources to workers.

1.2 Objectives of the Study

The post-assessment was conducted to compare the following aspects with the pre-assessment findings:

- Workers'
 - Knowledge about FP/RH, nutrition and MNCH;
 - Interpersonal Communication and Counseling (IPCC) and integrated messaging skills using information communication technology with clients in households, communities and/or clinics;
 - Ability to function at a basic level on a netbook;
- Clients' behavioral health intentions regarding key FP/RH, nutrition and MNCH issues.

1.3 Study Areas

Pilot activities and the post-assessment were carried out in two selected low-performing districts of Bangladesh, identified by the GoB's MoHFW in collaboration with BKMI and USAID. These were the

low-performing Chittagong and Sylhet districts. The following are 12 sub-districts or *upazilas* within the districts that were included in the eHealth pilot:

- Sylhet District: 1) Sadar, 2) South Surma, 3) Bianibazar, 4) Biswanath, 5) Golapgonj, and 6) Balagonj
- Chittagong District: 1) Patia, 2) Mirsarai, 3) Hathazari, 4) Chandanaish, 5) Boalkhali and 6) Anowara

1.4 Participants

The participants of the post-assessment study were workers and clients in participating pilot areas.

Workers:

- **Community-based field workers (FWs):** FWAs and HAs who visit communities to deliver health information and services.
- **Facility and NGO-based workers:** MIS/Statisticians from Upazila Health Complexes (UHCs), as well as Surjer Hashi (the NGO Health Service Delivery clinics) counselors and paramedics who provide health information and services from medical facilities.

Clients: Women of reproductive age (~15-49 years old) with at least one child under the age of 24 months, accessing HPN services in the community.

2. METHODOLOGY

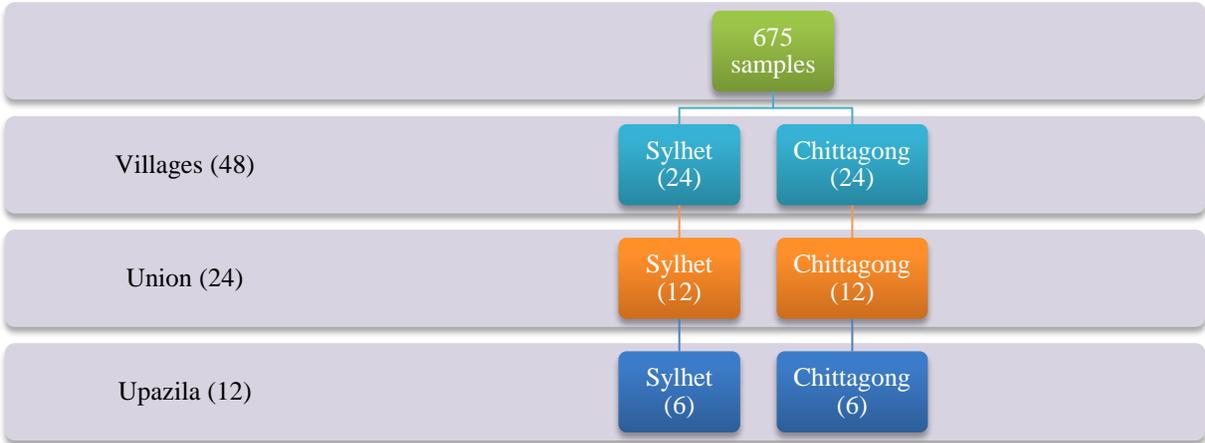
2.1 Study Design

The post-assessment surveyed 349 workers (304 field workers, 15 facility-based workers from UHCs, and 30 NGO-based workers from Surjer Hashi clinics) that were included in the pre-assessment data collection. The same methodology was followed during the post-assessment as was followed for the pre-assessment, where from each of the 12 upazilas, 2 unions (level below an upazila) were randomly selected to be the primary sampling unit for each upazila. Community-based clients (mothers with a child <= 2 years) were selected from a sampling frame of all mothers (<= 2 years) using a systematic random sampling approach.

The sample size for the collected information according to respondent type is as follows:

Respondent	Instrument	Sampling	District		Total
			Chittagong	Sylhet	
Workers					
Field Workers	Structured questionnaire	Purposive	151	153	304
UHCs	„	„	17	28	45
Surjer Hashi	„	„	9	16	25
Clients					
Community mothers (<= 2 yrs)	„	Systematic random sampling	337	337	674
Total			514	534	1078

As in the pre-assessment, a total of 48 villages – 24 from each of the districts were included for the community level survey of mothers. These villages were selected from 12 unions and 6 upazilas from each district.



With the systemic random sampling approach, a total of 387 households from each district were targeted, of which 337 were included in the post-assessment. The total number of respondents was 674 – 337 from each district. It was taken into careful consideration that, the households that were covered in the pre-assessment were not included during the post-assessment. The same pre-coded

questions were used in the survey, and all responses were audio recorded and noted on paper by trained interviewers. After the initial data processing –including input, coding, and cleaning – the data was analyzed using SPSS statistical software. For the post-assessment, the study team provided a five-day comprehensive training to the field data collectors. 4 quality control (QC) officers guided and supervised the 20 trained interviewers. The QC officers were responsible for ensuring:

- Proper site selection;
- Quality of data;
- Guiding enumerators during data collection;
- Checking some randomly chosen data that were collected by the enumerators;
- Checking the entire completed data sheet; and
- Holding discussion meetings at the end of the day with the enumerators.

In addition, the QC officers were also responsible for repeating 5% of the interviews conducted by the interviewers that worked on his/her team, selected at random. The data collection took place simultaneously in two districts with two separate teams. Eminence trained the interviewers in confidentiality and consent procedures; this was a community-level survey that de-identified all respondents.

3. FINDINGS FROM CLIENTS

3.1 Client Demographic Profile

For both the pre- and post-assessment, the selected age group was from 18 to 43 years. The majority of respondents were from the 25-29 year age group. Among the 86.2% respondents in the pre-assessment who ever attended school, 36.8% completed primary education and 59.2% received secondary education. In contrast, among the 87.4% respondents in the post-assessment who ever attended school, 43.1% completed primary education and 53.9% received secondary education.

Most of the respondents were reported Muslims while respondents with other religious beliefs also participated in the assessments. 78% of the respondents during the pre-assessment reported to have provision of electricity, in the post- assessment it has gone up to 86.4%.

Efforts have been made to evaluate the access of the study population to different forms of media like newspaper, radio, and television through pre and post-assessments. It was revealed that more than 80% of the study population does not have access to print media and more than 90% have no access to radio. The only form of media that study respondents have greater access to, between the pre and post-assessment, is television. 42.6% of respondents during the pre-assessment reported to watch TV on a daily basis while the number increased to 59.1% during the post-assessment.

3.2 Pregnancy History

Table 1: Pregnancy history in pilot Areas

Indicators	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Currently Pregnant	23	6.8	12	3.6	35	5.2	5	1.5	10	3	15	2.2
<i>Completed Months of Pregnancy</i>												
First Trimester	10	43.5	3	25.0	13	37.1	3	60.0	5	50.0	8	53.3
Second Trimester	5	21.5	8	66.7	13	37.1	1	20.0	3	30.0	4	26.7
Third Trimester	8	34.8	1	8.3	9	25.7	1	20.0	2	20.0	3	20
<i>Knowledge about being pregnant between two menstrual periods</i>												
Shared positive response	273	81.0	268	79.5	541	80.3	285	84.6	274	81.1	559	82.8
<i>Response about timing of getting pregnant between two menstrual periods</i>												
Indicators	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Just before her period begins	12	3.6	14	4.2	26	3.9	16	5.6	13	4.7	29	5.2
During her period	11	3.3	13	3.9	24	3.6	22	7.7	26	9.5	48	8.6
Right after her period has ended	144	42.7	105	31.2	249	36.9	103	36.1	120	43.8	223	39.9
Halfway between two periods	101	30.0	112	33.2	213	31.6	138	48.4	115	42.0	253	45.3
Do not know	69	20.5	93	27.6	162	24.0	6	2.1	0	0	6	1.1

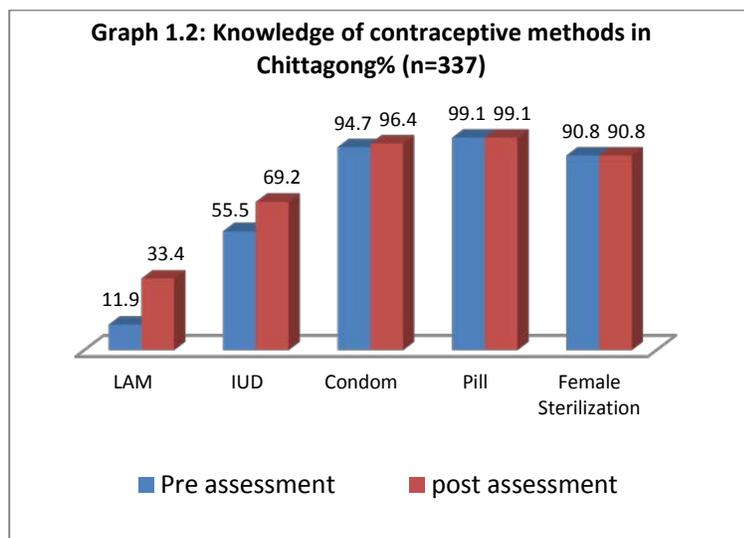
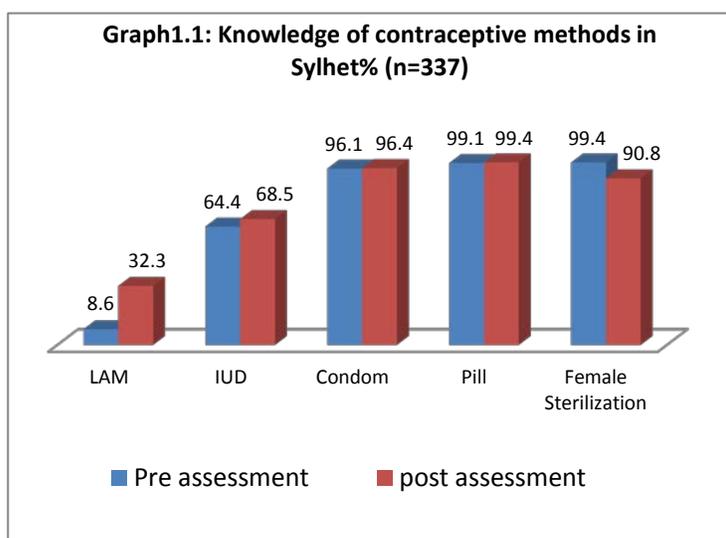
During the pre-assessment, 5.2% of women reported being pregnant, and among them 74.2% were in their first and second trimesters. During the post-assessment, only 2.2% of women were pregnant, and most of them (53.3%) were in their first trimester. The majority of the total women surveyed during the post-assessment (N=675) reported that the most likely time to conceive is halfway between their periods and right after their periods had ended.

3.3 Knowledge of FP Methods

Table 2: Knowledge of contraceptive methods in pilot areas

Indicator	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<i>Contraceptive Methods</i>												
Female Sterilization	335	99.4	306	90.8	641	95.1	306	90.8	307	90.8	613	90.8
Male Sterilization	294	87.2	241	71.5	535	79.4	293	86.9	277	82.0	570	84.4
IUD	217	64.4	187	55.5	404	59.9	231	68.5	234	69.2	465	68.9
Injectable	330	97.9	327	97	657	97.5	327	97.0	333	98.5	660	97.8
Implants	321	95.3	262	77.7	583	86.5	307	91.1	290	85.8	597	88.4
Pill	334	99.1	334	99.1	668	99.1	365	99.4	335	99.1	670	99.3
Condom	324	96.1	319	94.7	643	95.4	325	96.4	326	96.4	651	96.4
LAM	29	8.6	40	11.9	69	10.2	109	32.3	113	33.4	222	32.9
Safe Period	232	68.8	225	66.8	457	67.8	217	64.4	241	71.3	458	67.9
Withdrawal	195	57.9	164	48.7	359	53.3	188	55.8	186	55.0	374	55.4
Emergency Contraceptive	25	7.4	48	14.2	73	11.46	77	22.8	72	21.3	149	22.1

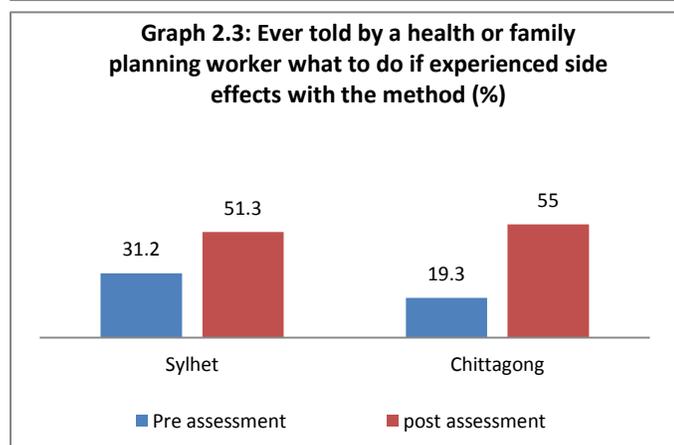
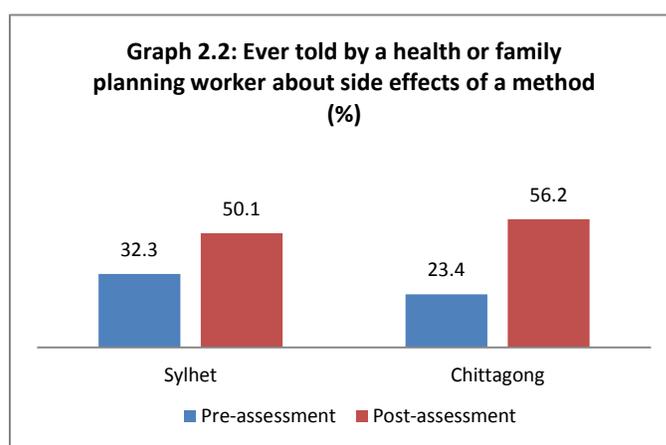
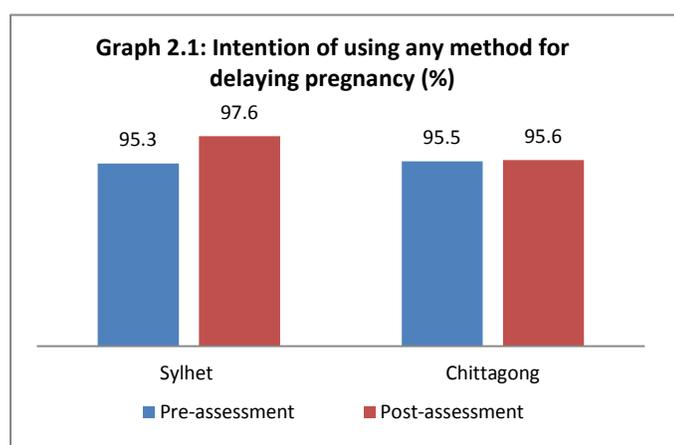
Overall, client's knowledge of family planning methods is very high, with only a few exceptions. Knowledge of Intra-Uterine Devices (IUDs), emergency contraception and Lactational Amenorrhoea (LAM) are much lower than the other predominant methods, client's knowledge of emergency contraceptives and LAM increased by 11% and 22% respectively. Only marginal differences in knowledge of contraceptive methods were observed between districts.



3.4 Intention to Use Contraceptive Methods

Table 3: Intention to use family planning methods in pilot areas

Indicator	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Intention of using any method for delaying pregnancy	321	95.3	322	95.5	643	95.4	329	97.6	323	95.6	652	96.6
Ever told by a health or family planning worker about side effects of a method	109	32.3	79	23.4	188	27.9	169	50.1	190	56.2	359	53.2
Ever told by a health or family planning worker what to do if experienced side effects with the method	105	31.2	65	19.3	170	25.2	173	51.3	186	55.0	359	53.2
Ever told by a health and/or family planning worker about other family planning methods	92	27.3	66	19.6	158	23.4	166	49.3	200	59.2	366	54.2



Pre-assessment (N=674)
Post-assessment (N=675)

In both the pre and post-assessments, around 96% of respondents reported intention to use any contraceptive methods for delaying pregnancy. In the pre-assessment, only 27.9% of clients were told by a field worker (FW) about the side effects of contraceptive methods, whereas the post-assessment found that 53.2% of respondents reported that a FW had discussed side effects

(Table:3). Similarly, the rate of respondents who ever told by a health or family planning worker what actions to take if they experienced side effects with a FP method increased by 28% from the pre to the post-assessment survey.

3.5 Access to Family Planning Methods

Table 4: Knowledge of location to access family planning methods in pilot areas

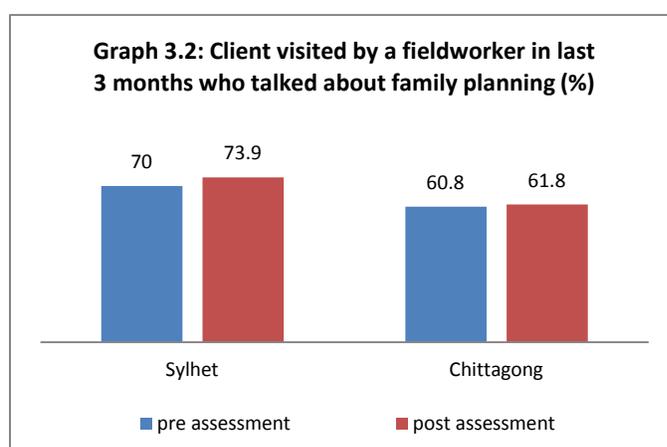
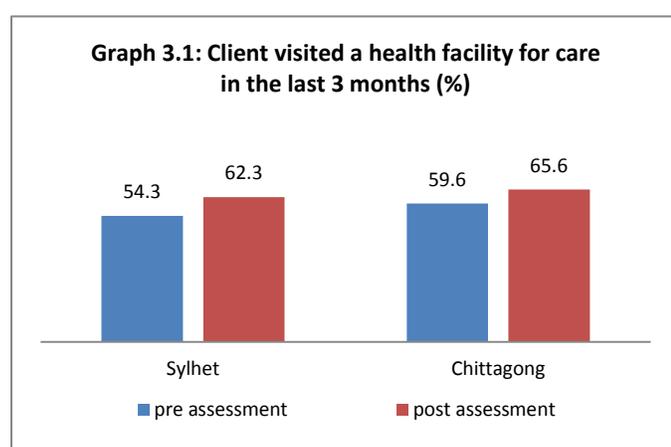
Indicator	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
General Location Knowledge	337	100	337	100	674	100.0	337	100.0	338	100.0	675	100
Name of Location												
Government Hospital	35	10.4	36	10.7	71	10.5	237	70.3	253	74.9	490	72.6
Government Health Center	32	9.5	47	13.9	79	11.7	122	36.2	140	41.4	262	38.8
Family Planning Clinic	41	12.2	56	16.6	97	14.4	159	47.2	150	44.4	309	45.8
Mobile/ Satellite Clinic	19	5.6	16	4.7	35	5.2	65	19.3	32	9.5	97	14.4
Field Worker	62	18.4	33	9.8	95	14.1	115	34.1	113	33.4	228	33.8
Other Govt. Sector	-	-	-	-	-	-	18	5.3	16	4.7	34	5.0
Private hospital	28	8.3	23	6.8	51	7.6	138	40.9	199	58.9	337	49.9
Pharmacy	96	28.5	108	32.0	204	30.3	136	40.4	141	41.7	277	41.0
Private doctors	10	3.0	10	3.0	20	3.0	56	16.6	86	25.4	142	21.0
Friends or relatives	14	4.2	8	2.4	22	3.3	11	3.3	10	3.0	21	3.1

All of the respondents in the pilot areas reported knowing of a location where family planning methods and emergency contraception can be obtained during both the pre and post-assessment. From the post-assessment results, a much higher percentage of clients were able to identify more than one place to access FP methods, and there was a much higher emphasis on government health care facilities. For instance, the percentage of clients that identified a government hospital as a place to access FP methods rose from 10.5% to 72.6%. Similarly, 31% more clients identified a family planning clinic as a place to obtain contraception, and both government health centers and FWs were identified by 20% or more clients for access to FP methods.

The private sector access points, such as private hospitals and physician offices also increased, with private hospitals being the second most frequently identified place to access family planning methods.

3.6 Clients Receipt of FP Knowledge from Field Worker (FW)

The overall percentage of visits by FW who talked about family planning increased slightly after the intervention (67.9%), which was reported at 65.4% in the pre-assessment. In addition, the percentage of clients that reported visiting a health facility for themselves or for their children increased by 6% within the pre to post- assessment period. Furthermore, the percentage of staff at the health facility that discussed family planning with clients was shown to increase 5% after the intervention.



Pre-assessment (N=674)
Post-assessment (N=675)

3.7 Expected Pregnancy in Pilot Areas

Table 5: Information about expected pregnancy in pilot areas

Indicators	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
During last pregnancy the respondent wanted to get pregnant at that time	252	74.8	272	80.7	524	77.7	240	71.6	264	78.6	504	75.1
During last pregnancy the respondent wanted to wait or	85	25.2	65	19.3	150	22.3	95	28.4	72	21.4	167	24.9

wanted no (more) child												
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There is little difference observed in the expected pregnancy rate (in case of last pregnancy) among the women in the pilot areas before and after the intervention. The total rate of expected pregnancy reported at pre-assessment was 77.7% and 75.1% during the post-assessment. During the pre-assessment, 22.3% of women reported that their last pregnancy was unwanted which increased to 24.9% after the intervention.

3.8 Use of ANC Services

Table 6: ANC during last pregnancy

Indicators	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Sought ANC during the last pregnancy	295	87.5	310	92.0	605	89.8	263	78.5	320	95.2	583	86.9
<i>Place where ANC was sought</i>												
Own home	67	19.9	59	17.5	126	18.7	10	3.0	47	14.1	57	8.5
Others home	10	3.0	11	3.3	21	3.1	37	11.0	39	11.6	76	11.3
Govt. hospital	63	18.7	48	14.2	111	16.5	79	23.6	94	28.0	173	25.8
Upazila Health Complex	51	15.1	82	24.3	133	19.7	92	27.5	136	40.8	228	34.1
Union Health Center	43	12.8	59	17.5	102	15.1	94	28.1	74	22.2	168	25.1
Community Clinic	18	5.3	39	11.3	57	8.5	37	11	28	8.3	65	9.7
Private hospital/clinic	139	41.2	116	34.4	255	37.8	143	42.7	115	34.2	258	38.5
<i>Person visited</i>												
No one	42	12.5	27	8	69	10.2	-	-	-	-	-	-
Doctor	231	68.5	215	63.8	446	66.2	188	71.5	197	61.6	385	66.0
Nurse	8	2.4	24	7.1	32	4.7	13	4.9	37	11.6	50	8.6
Traditional Birth	10	3.0	18	5.3	28	4.2	7	2.7	9	2.8	16	2.7

Indicators	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Attendants												
Midwife	-	-	-	-	-	-	6	2.3	7	2.2	13	2.2
Community/Village Health Worker	46	13.6	53	15.7	99	14.7	49	18.6	70	21.9	119	20.4
<i>First ANC received within the following trimesters</i>												
During First Trimester	167	59.6	172	58.5	339	59.1	195	59.6	195	59.3	390	59.5
During Second Trimester	96	34.3	109	37.1	205	35.7	113	34.6	123	37.4	236	36.0
During Third Trimester	17	6.1	13	4.4	30	5.2	19	5.8	11	3.3	30	4.6
<i>Number of times ANC was received during the last pregnancy</i>												
Once	17	5.0	12	3.6	29	4.3	9	2.7	2	0.6	11	1.6
Twice	78	23.1	50	14.8	128	19.0	71	21.2	55	16.4	126	18.8
Thrice	66	19.6	72	21.4	138	20.5	69	20.6	83	24.7	152	22.7
Four times	45	13.4	66	19.6	111	16.5	94	28.1	111	33.0	205	30.6
More than four times	131	38.9	137	40.7	268	39.8	92	27.0	85	25.3	177	26.4
Received TT during the last ANC	238	70.6	268	79.5	506	75.1	296	88.4	286	85.1	585	86.7
<i>Number of times receiving TT</i>												
Once	66	27.7	86	32.1	152	30.0	52	17.6	113	39.5	165	28.4
Twice	29	12.2	53	19.8	82	16.2	116	39.2	127	44.4	243	41.8
Thrice	45	18.9	44	16.4	89	17.6	28	9.5	17	5.9	45	7.7
Four times	14	5.9	11	4.1	25	4.9	0	0	1	0.3	1	0.2
More than four times	84	35.3	74	27.6	158	31.2	100	33.8	28	9.8	128	22.0

In both assessments, more than 80% of mothers received an ANC check-up during their last pregnancy. In the pre-assessment, a majority of the mothers (37.8%) in Sylhet and Chittagong sought ANC care from a private hospitals of clinic, whereas in the post-assessment, mothers from Chittagong reported seeking ANC services more in the Upazila Health Complexes [UHCs (40.8%)] than in private facilities (34.2%), while in Sylhet the choice remained the same (private hospitals and clinics).

During the pre-assessment, 10.2% of pregnant mothers did not visit a health professional for ANC check-up which dropped down to zero after the intervention. The majority of the pregnant mothers (clients) reported visiting doctors (66.2%) more than any other health professional for ANC visits, with 59% of clients reporting attending their ANC visit during the first trimester.

The post-assessment revealed that the mothers from Chittagong sought ANC services more in the UHCs (40.8%) than in private facilities (34.2%) while in Sylhet the choice remained the same (private hospitals and clinics).

In the post-assessment, data was taken from the pilot areas for when a pregnant woman should seek ANC services. It was found that 59.5% of women in the pilot areas perceived the first trimester as the time to seek ANC services while 36% of women considered the second trimester and 4.6% of women considered the third trimester as the time to ask for ANC support. The rate of attending exactly four ANC increased by 14.1% after the intervention and went up to 30.6%.

In both pilot areas, the rate of receiving Tetanus Toxoid (TT) vaccines during last ANC visit increased after the intervention. The pre-assessment report showed that 75.1% of pregnant women from the study areas received TT during their last ANC visit while after the pilot project the rate increased to 86.7%. While the pre-assessment showed that only 16.2% of pregnant women received TT twice, the rate increased by 25.3% after the intervention and the post-assessment rate was 41.8%.

3.8 Knowledge of Maternal Danger Signs

Table 7: Knowledge of maternal danger signs

Indicators	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Field worker talked about the critical danger signs for a woman during pregnancy and childbirth	208	61.7	201	59.6	409	60.7	209	62.4	230	68.5	439	65.4
Indicators for critical danger signs for a woman during pregnancy and childbirth												
Vaginal Bleeding before delivery	110	32.6	87	25.8	197	29.2	160	54.2	173	58.6	333	56.4
Convulsions	193	57.3	218	64.7	411	61.0	252	85.4	262	88.8	514	87.1
Excessive Bleeding during or immediately after childbirth	141	41.8	153	45.4	294	43.6	146	49.5	112	38	258	43.7
High fever	116	34.4	149	44.2	265	39.3	187	63.4	155	52.5	342	58.0
Failure of labor to begin more than six hours after water breaks	50	14.8	57	16.9	107	15.9	108	36.6	58	19.7	166	28.1

In the pre-assessment, about 60% of FWs reported talking about the critical danger signs for a woman during pregnancy and childbirth—61.7% are from Sylhet division and 59.6% are of Chittagong division. After the intervention, the rate of FWs talking about critical danger signs

during pregnancy and childbirth increased in Chittagong by 8.9% but increased less than 1% in Sylhet. This point highlights the regional differences in some of the key topics, unfortunately we did not collect data on what sections of the HPN BCC eToolkit were used by region, but it is possible that FWs in Chittagong utilized materials that highlighted critical dangers signs, whereas FWs in Sylhet may not have.

The pre-assessment report showed that, among the indicators for critical danger signs, 61% of pregnant women had identified convulsion while 43.6% identified excessive hemorrhage, 39.3% identified high fever and 3.7% failed to identify any danger signs. After the intervention, 87.1% of pregnant women identified convulsion, 43.7% identified excessive hemorrhage, and high fever was identified by 58%. No woman in the post-assessment reported being fully unaware about danger signs.

3.9 Clients Reporting Assisted Delivery

Table 8: Assisted delivery during last birth

Indicators	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Person provided assistance during delivery												
Doctor	91	27.0	110	32.6	201	29.8	87	26.0	99	29.5	186	27.7
Nurse	34	10.1	67	19.9	101	15.0	39	11.6	57	17.0	96	14.3
Midwife	106	31.5	79	23.4	185	27.4	75	22.4	69	20.5	144	21.5
Traditional Birth Attendants	84	24.9	60	17.8	144	21.4	136	40.6	109	32.4	245	36.5
Community/Village Health Worker	22	6.5	21	6.2	43	6.4	12	3.6	16	4.8	28	4.2
Place for assisted delivery												
Own Home	221	65.6	164	48.7	385	57.1	228	68.1	201	59.8	429	63.9
Govt. Hospital	49	14.5	54	16.0	103	15.3	11	3.3	3	0.9	14	2.1
Upazila Health Centre	9	2.7	29	8.6	38	5.6	29	8.7	35	10.4	64	9.5
Union Health Center	1	0.3	1	0.3	2	0.3	16	4.8	37	11.0	53	7.9
Community Clinic	1	0.3	3	0.9	4	0.6	2	0.6	0	0.0	2	0.3
Private hospital/clinic	56	16.6	86	25.5	142	21.1	49	14.6	60	17.9	109	16.2

In the pre-assessment, 29.8% of women reported having a doctor perform her delivery, while 21.4% were assisted by Traditional Birth Attendants (TBAs) and 27.4% by midwives. In the post-assessment, the rates of deliveries performed by TBAs increased by 8.9% while the number of deliveries assisted by midwives decreased by 5.9%.

The study found that, most births took place at home before and after the intervention—57.1% and 63.9% respectively. In the pre-assessment, 21.1% of births were reported to be in private hospitals/clinics while the rate decreased after the intervention, which contributed to a slight increase in the number of births in UHCs.

3.10 Knowledge of Newborn Danger Signs

Table 9: Knowledge of newborn danger signs in pilot areas

Indicators	Sylhet % (n)	Chittagong % (n)	Total % (n)
During this last pregnancy fieldworker talked about danger signs for a newborn	49.3% (166)	37.4% (126)	43.4% (292)
Danger signs of newborn			

Indicators	Sylhet % (n)	Chittagong % (n)	Total % (n)
<i>Birth Asphyxia</i>	69.1% (233)	65.3% (220)	67.2% (453)
<i>Low Birth Weight</i>	18.1% (61)	11.6% (39)	14.8% (100)
<i>Sepsis</i>	63.5% (214)	74.5% (251)	69% (465)

Before starting the pilot program, 43.4% of women reported to know about the danger signs of newborns including low birth weight, sepsis, and asphyxia. The level of knowledge increased after the intervention to 53.1%. The intervention brought changes in the perception about seeking PNC support for the mother and child. It was reported in the earlier assessment that, 61.9% of respondents perceived that mother and child should have 1-2 PNC visit. After the intervention, the perception changed significantly and the response of 1-2 PNC visits decreased by 17.1% while the perception of having 3-4 PNC visits increased by around 50%. However, perceptions on number the of vaccines to be taken by the newborn did not change much between the pre and post-assessment period.

Knowledge of hand washing with soap before eating and after defecation to prevent diarrheal diseases was at 33.5% during pre-assessment and increased to 72.2% after the intervention. Knowledge on other diarrheal disease prevention measures increased significantly at the end of the project. In the post-assessment, 42.6% of respondents reported knowing about giving water to the child during diarrhea, which was only 16.6% during the pre-assessment.

Table 10: Knowledge of newborn and child health

Indicator	Sylhet % (n)	Chittagong % (n)	Total % (n)
During this last pregnancy a field worker talked about how to care for a newborn baby	49.0% (165)	40.4% (136)	44.7% (301)
After birth delay bathing a newborn child (Hour)			
<i>One day</i>	26.4% (89)	24.0% (81)	25.2% (170)
<i>Two days</i>	24.3% (82)	18.1% (61)	21.2% (143)
<i>Three days</i>	19.6% (66)	12.8% (43)	16.2% (109)
<i>Four days</i>	2.7% (9)	5.3% (18)	4% (27)
<i>More than four days</i>	5.0% (17)	8.9% (30)	7% (47)
<i>Do not Know</i>	22.0% (74)	30.9% (104)	26.4% (178)
Number of PNC a mother and child should take			
<i>1-2 Times</i>	66.5% (224)	57.3% (193)	61.9% (417)
<i>3-4 Times</i>	13.4% (45)	23.1% (78)	18.2% (123)
<i>More Than four times</i>	20.2% (68)	19.6% (66)	19.9% (134)
Number of vaccines			
<i>1-5 vaccines</i>	75.4% (214)	80.4% (230)	77.9% (444)
<i>6-8 vaccines</i>	24.6% (70)	19.6% (56)	22.1% (126)
Prevention of diarrhea			
Hand wash with soap before and after eating and after using the toilet	38.9% (131)	28.2% (95)	33.5% (226)

Indicator	Sylhet % (n)	Chittagong % (n)	Total % (n)
Use ORS and Zinc supplements	30.0% (101)	30.6% (103)	30.3% (204)
Give the child water	17.5% (59)	15.7% (53)	16.6% (112)
Do Not Know	4.7% (16)	11.9% (40)	8.3% (56)
Using Oral Saline	89.0% (300)	84.0% (283)	86.5% (583)

3.11 Knowledge about breastfeeding

Table 11: Knowledge about breastfeeding in pilot areas

Indicators	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<i>Understanding on exclusive breastfeeding</i>												
Infants only breastfeed for six months (not even water)	237	70.3	206	61.1	443	65.7	219	66	236	70.7	455	68.3
Give Water to Child	-	-	-	-	-	-	-	-	-	-	-	-
Breastfeeding with water for six month	94	27.9	103	30.6	197	29.2	84	25.3	46	13.8	130	19.5
Does not know	2	0.6	13	3.9	15	2.2	-	-	-	-	-	-
Breastfeeding with other regular food for six month	5	1.5	15	4.5	20	3.0	2	0.7	7	2.4	9	1.5
Ever breastfed the last child	323	95.8	330	97.9	653	96.9	330	98.5	335	99.7	665	99.1
<i>Initiation of breastfeeding</i>												
Less than one hour	153	47.4	72	21.8	225	34.5	226	69.8	234	71.3	460	70.6
1 – 3 hours	163	50.5	234	70.9	397	60.8	90	27.8	91	27.7	181	27.8
4 – 8 hours	4	1.2	10	3	14	2.6	7	2.2	3	0.9	10	1.5
9 – 24 hours	3	0.9	14	4.2	17	2.6	1	0.3	0	0	1	0.2
More than 24 hours	-	-	-	-	-	-	--	-	-	-	--	-
Child was given anything other than breast milk	75	22.3	107	31.8	182	27.0	102	30.4	66	19.6	168	25.0
<i>Types of liquid given</i>												
Milk (other than breast milk)	10	2.9	29	8.6	39	5.7	3	0.8	14	4.1	17	2.5
Plain Water	24	7.1	23	6.8	47	6.9	20	5.9	16	4.7	36	5.3
Sugar or Glucose water	-	-	-	-	-	-	-	-	-	-	-	-
Gripe Water	-	-	-	-	-	-	1	0.2	0	0	1	0.1
Sugar-Salt-Water Solution	12	3.5	3	0.8	15	2.2	5	1.4	2	0.5	7	1.0
Infant Formula	-	-	-	-	-	-	-	-	-	-	-	-
Honey	22	6.5	53	15.7	75	11.1	14	4.1	27	7.9	41	6.0
Continuing breastfeeding	306	90.8	318	94.4	624	92.6	305	91	328	97.6	633	94.3
Intention to breastfeed the future child	321	95.3	329	97.6	650	96.4	329	98.2	334	99.4	663	98.8

Over 96% of respondents in the pre-assessment reported to breastfeed their child. Knowledge on exclusive breastfeeding was 65.7% during pre-assessment and increased slightly to 68.3% after the intervention. Among the study population who reported breastfeeding their child, 70.6% of them had knowledge of initiating breastfeeding within an hour after birth. Before the pilot project only 34.5% of respondents knew that. Still, 25% of respondents reported giving children something other than breast milk. Attitudes towards breastfeeding also increased by 2.4%, meaning 98.8% of

respondents intended to breastfeed their future child while during the pre-assessment the rate was 96.4%.

3.12 Knowledge about complementary feeding

Table 12: Knowledge about complementary feeding

Indicator	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<i>Good complementary food options</i>												
Hotchpotch	246	73.0	282	83.7	528	78.3	308	91.9	321	95.5	629	93.7
Suji	128	38.0	146	43.3	274	40.7	226	67.5	192	57.1	418	62.3
Family food	239	70.9	243	72.1	482	71.5	206	61.5	177	52.7	383	57.1
Animal based food	76	22.6	70	20.8	146	21.7	165	49.3	117	34.8	282	42.0
Package food	75	22.3	16	4.7	91	13.5	77	23.0	39	11.6	116	17.3
<i>Consistency of complementary foods</i>												
Liquid	172	51.0	133	39.5	305	45.3	40	11.9	32	9.5	72	10.7
Semi Liquid	127	37.7	183	54.3	310	46.0	180	53.7	192	57.1	372	55.4
Initially well mashed gradually in small pieces	8	2.4	5	1.5	13	1.9	112	33.4	109	32.4	221	32.9
Solid	-	-	-	-	-	-	3	0.9	3	0.9	6	0.9
Do not know	30	8.9	16	4.7	46	6.8	-	-	-	-	-	-
<i>Appropriate time for starting complementary food</i>												
Before 6 month	49	14.5	35	10.4	84	12.5	22	6.6	18	5.4	40	6.0
After 6 month	188	55.8	172	51.0	360	53.4	276	82.4	295	87.8	571	85.1
Before 7 month	25	7.4	32	9.5	57	8.5	18	5.4	16	4.8	34	5.1
After 8 month	10	3.0	7	2.1	17	2.5	8	2.4	3	0.9	11	1.6
Before 9 month	4	1.2	8	2.4	12	1.8	4	1.2	1	0.3	5	0.7

Indicator	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Sylhet		Chittagong		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Not Applicable	41	12.2	58	17.2	99	14.7	0	0.0	3	0.9	3	0.4
Not Started	20	5.9	25	7.4	45	6.7	7	2.1	6	1.8	13	1.9

Hotchpotch was recognized as the most popular complementary food in both pre and post-assessments, 78.3% and 93.7% respectively, while suji and family foods are also among the more practiced complementary foods. Only 21.7% of respondents during pre-assessment recognized animal sources of food for complimentary feeding, which went up to 42% during the post-assessment. Semi-liquid food items were considered as good complementary foods by 55.4% of respondents in the post-assessment which was also reported to be the major form of complementary food during the pre-assessment.

Regarding the initiation of complementary food, the majority of clients in the post-assessment (85.1%) agreed that complementary foods should be introduced after 6 months of age, which follows the current recommendation by public health professionals. 44.3% of respondents in the post-assessment suggested complementary feeding three times daily while 32.6% in the pre-assessment responded the same.

3.13 Client Information-Seeking Behaviors

Table 13: Information seeking behavior from clients

Indicator	Pre-assessment						Post-assessment					
	Sylhet		Chittagong		Total		Chittagong		Sylhet		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<i>Point of contact for getting FP/RH related information</i>												
Field worker	153	45.4	107	31.8	260	38.6	168	49.9	213	63	381	56.4
Doctors	203	60.2	216	64.1	419	62.2	192	57	228	67.5	420	62.2
Elder family member	27	8	33	9.8	60	8.9	94	27.9	81	24	175	25.9
Others	4	1.2	13	3.9	17	2.5	-	-	-	-	-	-
<i>Point of contact for getting MNCH related information</i>												
Field worker	153	45.4	107	31.8	260	38.6	143	42.4	191	56.5	334	49.5
Doctors	203	60.2	216	64.1	419	62.2	215	63.8	250	74	465	68.9

Elder family member	27	8	33	9.8	60	8.9	85	25.2	79	23.4	164	24.3
Others	4	1.2	13	3.9	17	2.5	-	-	-	-	-	-
<i>Point of contact for getting nutrition related information</i>												
Field worker	74	22	57	16.9	131	19.4	161	47.8	192	56.8	353	52.3
Doctors	279	82.8	273	81	552	81.9	226	67.1	247	73.1	473	70.1
Elder family member	15	4.5	16	4.7	31	4.6	101	30	103	30.5	204	30.2
Others	4	1.2	15	4.5	2.8	19.0	-	-	-	-	-	-
<i>Place of getting information on health</i>												
Govt. Hospital	104	30.9	80	23.7	184	27.3	218	64.7	218	64.5	436	64.6
Upazila Health Complex	86	25.5	102	30.3	188	27.9	130	38.6	160	47.3	290	43.0
Community Clinic	25	7.4	40	11.9	65	9.6	47	13.9	41	12.1	88	13.0
Union Health Center	27	8	35	10.4	62	9.2	65	19.3	69	20.4	134	19.9
Private Hospital/ Clinic	154	45.7	100	29.7	254	37.7	196	58.2	176	52.1	372	55.1
Other Private Sector	109	32.3	82	24.3	191	28.3	55	16.3	57	16.9	112	16.6

There were significant changes observed in respondents' information seeking behavior both in Sylhet and Chittagong. For FP/RH issues, the post-assessment shows that there is a 18% and 17% rise in the number of people seeking information from the FWs and elderly family members respectively.

In the case of MNCH information, a majority of the people in the pre (62.2%) and post-assessment (68.9%) reported that a doctor is their main source of information. In comparison to the pre-assessment, 10.9% more clients identified FWs as a source of MNCH information. There is also a significant increase (15.4%) in clients seeking MNCH information from elderly family members. More clients are also seeking nutrition information from FWs and elderly family members between the pre and post-assessment.

Previously when the respondents needed information on health issues, the majority of the study population (37.7%) reported seeking help from private hospitals or clinics which remained as one of the major sources of information after the intervention. 55.1% of the study population sought health related information there. After the intervention, Government hospitals reported to be the source of information for the majority of the study population (64.6%). The rates of information seeking from the Upazila Health Complex and Union Health Centers have also increased from 27.9% to 43% and 9.2% to 19.9% respectively. Community clinics were reported to provide information to 13% of respondents in the post-assessment compared to only 9.6% in the pre-assessment.

4. FINDINGS FROM WORKERS

4.1 Worker Demographic Profile

The same workers were interviewed for the post-assessment as were for the pre-assessment. Of the 304 FWs, 151 were HAs and 153 were FWAs. Among the facility-based staff, thirty (30) Surjer Hashi workers from Surjer Hashi (Sylhet=21, CTG=9) and 15 (Sylhet=7 staff, CTG=8 staff) staff from 12 Upazila Health Complexes (UHC) were interviewed.

Note that for each of the tables in section 4, due to concerns about space and clarity, only the percentages are included. The total number of workers (n) is the same for each table in section 4: 151 HAs (Sylhet: 76, CTG: 75), 153 FWAs (Sylhet: 77, CTG: 76), 30 Surjer Hashi workers (Sylhet: 21, CTG: 9); 15 UHC staff (Sylhet: 7 staff, CTG: 8 staff). The percentages in the following tables were rounded to the nearest whole number.

In the pilot areas, the educational background of all of the workers was similar before and after the intervention. There was no significant difference between the result of pre-assessment and post-assessment.

The age distribution of the workers was categorized into four groups. The mean age of the workers was 34.94 years, ranging from 20 to 56 years. The largest percentage (39%) of workers belonged to the 20-29 age categories. In Sylhet, the majority of both the HAs (42.1%) and FWAs (41.6%) were in the 40-49 age category. Comparatively, the facility-based workers were younger, having 39% in the 20-29 age categories. In contrast, workers in Chittagong were younger on average than workers in Sylhet, with 61.3% of HAs and 39.5% of FWAs in the 20-29 age category, whereas the facility-based workers were a bit older. UHC staff (50%) were in the 30-39 age categories.

The job tenure for many of the current workers exceeds 10 years, with a mean of 11.5 years for all cadres of workers. Within the study area, 55.3% of HAs and FWAs worked for ten years or more. The same job tenure was reported for 57.1% of UHC staff, 47.4% of HAs and 40.3% of FWAs in Sylhet. Similarly, in Chittagong 87.5% of UHC staff, 77.3% of HAs and 46.1% of FWAs were found with the same job tenure (10 years or more).

The percentage of workers receiving basic or advanced computer training prior to the eHealth orientation among health workers is quite low, whereas the UHC staff have a higher percentage of basic computer training.

4.2 Knowledge of Family Planning

4.2.1 Birth Spacing

Table 14a: Perception of the HAs and FWAs about the benefits of birth spacing

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Mothers are healthier	90	65	99	99	48	59	100	97	69	62	99	98	82
Less likely to die during childbirth	75	27	100	100	16	8	71	68	46	18	85	84	58
Less likely to suffer maternal complications (seizure, fistula, etc.)	67	14	79	74	8	7	63	68	38	11	71	71	48
Babies born healthier	72	23	80	75	34	38	77	75	54	31	79	75	60
Children grow up healthier	54	47	96	91	39	28	49	58	46	38	73	75	58
Children grow up being more prosperous	38	17	82	78	43	30	57	55	40	24	70	67	50
Less expenses for the family	57	51	71	71	53	46	57	53	55	48	64	62	57
Children can go to better schools	54	53	84	75	47	45	32	37	50	49	58	56	53
More money left to feed children nutritious foods	38	39	95	88	29	40	36	45	34	39	66	67	52
Women in the family can work to earn	17	13	67	69	16	30	56	47	17	22	62	58	40
More happiness in conjugal life	32	22	75	77	44	37	49	28	38	29	62	52	45
Other	4	23	-	99	9	18	-		6	21	0	0	7

Overall, HAs were able to identify each of the spacing benefits with a much higher frequency following the intervention. During the pre-assessment, Chittagong HAs had much less knowledge of the benefits as compared to HAs in Sylhet, but the gap between the districts was much smaller in the post-assessment results. Only 46% of HAs knew that mothers who space their children are less likely to die during child birth, but the percentage was almost double after the intervention and 85.4% of HAs knew about the benefits of birth spacing. 38% of HAs knew that the mothers who properly space children are less likely to suffer maternal complications like seizure (Eclampsia), fistula etc.

After the intervention, the percentage grew to 71.81% of HAs who knew that babies are born healthier and 70% who knew that children grow up healthier if mothers practice birth spacing. 58% of HAs knew that children can go to better schools after the intervention, whereas the percentage was only 50% before the intervention about the benefits of birth spacing. Only 34% of HAs knew that mothers have more money left to feed children nutritious foods, but after the intervention, 66% of HAs knew about this benefit of birth spacing. Before the intervention, only 17% of HAs had an idea that those women who space births can work to earn money for their family, but the percentage mounted to 62% after the intervention. 38% of HAs perceived that the women are happier in their conjugal life, after the intervention the percentage increased to 62%.

The findings also showed that the knowledge about the benefits of birth spacing among the FWAs was improved overall after the intervention. Before the intervention, only 62% of FWAs knew that mothers remain healthier if they take some time between two childbirths, but the percentage rose to 98% after the intervention. Only 18% of FWAs had an idea that these mothers are less likely to die during childbirth, but after the intervention more than 80% of FWAs were aware about it.

Significant change was found in the knowledge and perception of FWAs on mothers who space births, and that they are less likely to suffer maternal complications such as seizure, fistula etc. and the percentage increased from 11% to 71% after the intervention. Only 31% of FWAs knew that babies are born healthier if mothers practice birth spacing, after the intervention the percentage doubled and the post-assessment shows the rate was 75%. Less than 25% of FWAs knew the birth spacing benefit that children grow up healthier in the initiation of the project, but after providing the intervention in the post-assessment it was found that 66.7% of FWAs were informed about the benefit. It takes less expense for the family if a mother practices birth spacing, 48% FWAs were aware of this benefit before the intervention, and after the intervention 62% were aware of it. After the intervention, 58.2% of the FWAs knew that women who space births can work and earn for their family. Only 29% FWAs had a perception about the happiness in conjugal life as a benefit of birth spacing before the intervention, on the contrary, the post-assessment showed that 52% FWAs were aware about the benefit.

Table 14b: Perception of the UHC and Surjer Hashi staff about the benefits of birth spacing

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Mothers are healthier	71	100	100	100	50	100	100	100	60	100	100	100	90
Less likely to die during childbirth	57	86	100	100	00	78	100	100	27	83	100	100	78
Less likely to suffer maternal complications such as seizure (Eclampsia), fistula, etc.	57	71	100	86	00	56	100	78	27	67	100	83	69
Babies born healthier	71	33	57	57	25	33	75	67	47	33	67	60	52
Children grow up healthier	29	48	57	67	25	55	75	78	27	50	67	70	54
Children grow up being more prosperous	43	19	100	43	13	11	88	44	27	17	93	43	45
Less expenses for the family	29	5	57	33	63	00	75	44	47	3	67	37	39
Children can go to better schools	14	00	100	33	25	0	75	44	20	00	87	37	36
More money left to feed children nutritious foods	44	00	100	33	13	0	100	56	27	00	100	40	42
Women in the family can work to earn	-	00	100	29	-	0	100	56	0	00	100	37	34
More happiness in conjugal life	-	00	100	33	25	0	100	67	13	00	100	43	39
Other	29	00	-	38	13	0	-	0	20	00	00	27	12

In the pre-assessment, it was seen that 60% of UHC staff knew that birth spacing keeps mothers healthier and 26.7% said they knew that mothers are less likely to die during childbirth and have maternal complications such as seizure (eclampsia), fistula etc. if birth spacing prevailed. Whereas after the post-assessment, 100% of UHC staff knew about these three benefits of birth spacing. After the intervention, 67% of UHC staff said they knew that babies are born healthier and grow up healthier if mothers take time between two childbirths. Only 27% of UHC staff perceived that children grow up prosperously as a benefit of birth spacing before the intervention and 93% talked about it in the post-assessment. Only 20% of UHC staff had the perception that children can go to better schools as a benefit of birth spacing but the percentage increased sharply to 86.7% after the intervention. After the intervention, 100% of UHC staff had the knowledge that birth spacing gives the opportunity to the family to feed their children nutritious food, and women can earn money for their family. In the post-assessment, all the UHC staff said it brings more happiness in conjugal life.

Table 14b depicts that in both districts, 100% of Surjer Hashi staff knew about the benefit. In the pre-assessment, 85.7% of Surjer Hashi staff reported to have the knowledge that mothers are less likely to die during childbirth if they had birth spaced before. During the post-assessment, it was found that 100% of the Surjer Hashi staff interviewed were well aware about this. In Chittagong, more than 75% of Surjer Hashi staff knew about the benefit before the intervention and after the intervention 100% of Surjer Hashi had the knowledge. While more than 55% of UHC staff knew the mothers who had birth spaced before are less likely to suffer maternal complications while the percentage was only 25% in Chittagong. In Sylhet, more than 70% of Surjer Hashi staff knew about the benefit which increased to 86% after the intervention. In Chittagong, after the intervention more than 77% of Surjer Hashi staff knew about the knowledge. Both in Sylhet and Chittagong the percentage of UHC staff who knew that children grow up healthier was similar before the intervention, and after the intervention the percentage turned into 50%. In Sylhet, more than 40% UHC staff knew children grow up being more prosperous, whereas in Chittagong it was only 13%, after the intervention the percentage increased gradually both in Sylhet and Chittagong. Only 29% of UHC staff in Sylhet knew that mothers, who had spaced births, spend less for the family, whereas, more than 60% of UHC staff from Chittagong had the knowledge. More than 40% UHC staff from Sylhet and 13% from Chittagong said more money can be used to feed children with nutritious food if the mothers had birth space. Before intervention no Surjer Hashi staff answered about the question but after the intervention, 33% from Sylhet and 55.6% from Chittagong talked about the knowledge. After the intervention, 4 UHC staff from Sylhet and 1 UHC staff from Chittagong said women can earn more for their family if they had spaced births whereas 28.6% of Surjer Hashi staff from Sylhet and 56% from Chittagong talked about the benefit. In the post-assessment, in Sylhet, more than 40% of UHC staff and 33% of Surjer Hashi staff reported that birth spacing brings more happiness in conjugal life whereas in Chittagong the percentage was 50% and 67% respectively for the two facilities

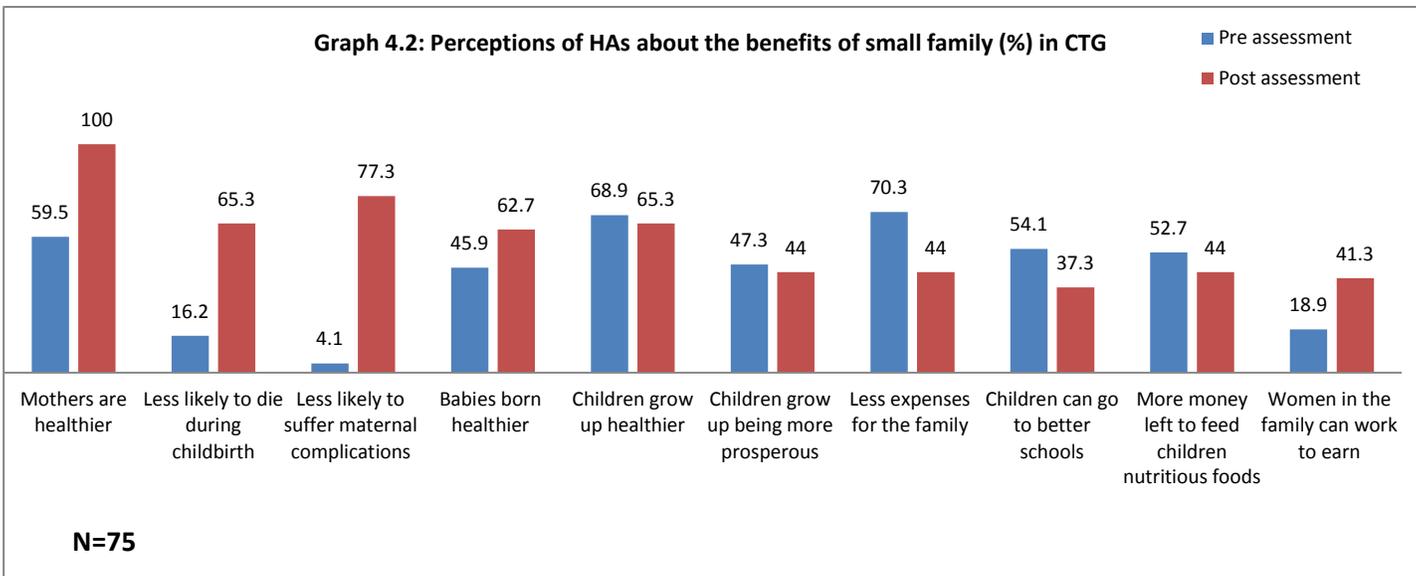
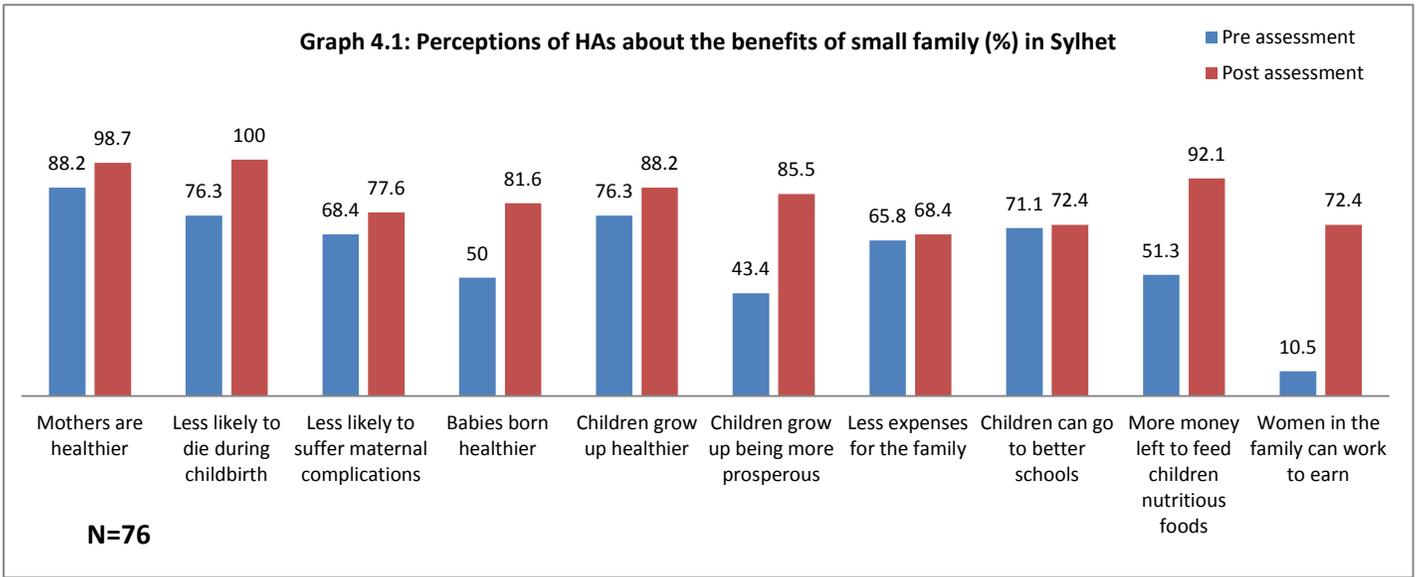
4.2.2 Benefits of Small Families

Table 15a: Perception of the HAs and FWAs about the benefits of having small family

	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Mothers are healthier	88	71	99	96	60	67	100	96	74	69	100	96	85
Less likely to die during childbirth	76	22	100	97	16	24	65	61	46	23	83	79	58
Less likely to suffer maternal complications	68	10	77	83	4	3	77	79	36	7	77	81	50
Babies born healthier	50	17	82	82	50	40	63	68	50	29	73	75	57
Children grow up healthier	76	55	88	92	69	43	65	55	73	49	77	74	68
Children grow up being more prosperous	43	21	86	86	47	41	44	47	45	31	65	67	52
Less expenses for the family	66	70	68	65	70	65	44	56	68	68	56	61	63
Children can go to better schools	71	78	72	77	54	70	37	29	63	74	55	53	61
More money left to feed children nutritious foods	51	55	92	90	53	63	44	33	52	59	68	62	60
Women in the family can work to earn	11	25	72	74	19	37	41	26	15	31	57	50	38

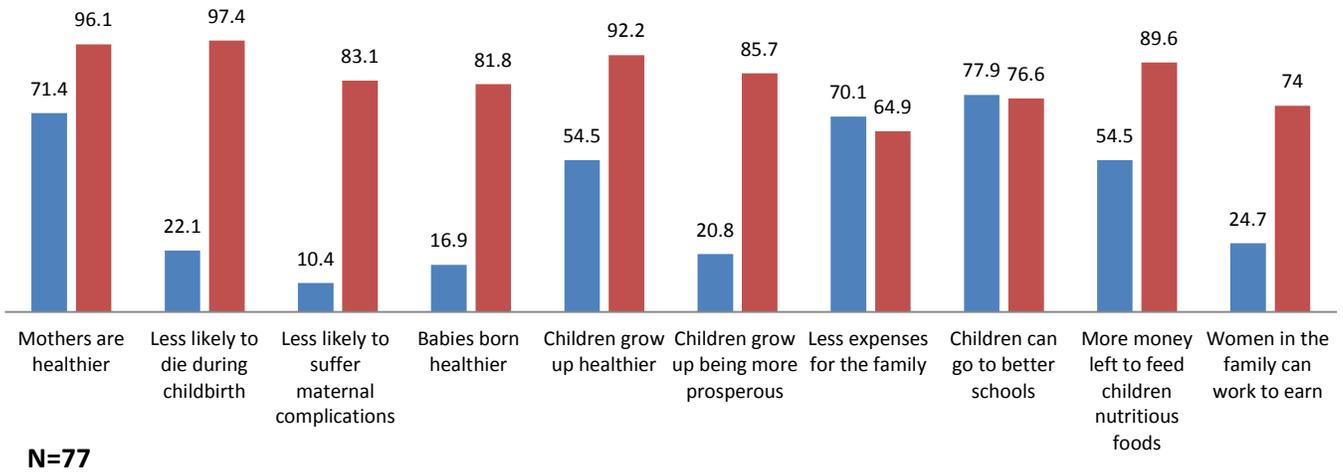
HAs had been asked about the benefits of having a small family before and after the intervention. While in the pre-assessment 60% of HAs from Chittagong said mothers are healthier, in the post-assessment 100% of HAs from Chittagong gave the same reply. On average, almost 100% of HAs from Sylhet and Chittagong gave the answer after the intervention. Only 4% of HAs in Chittagong said mothers are less likely to have maternal complications whereas in the post-assessment 77% of HAs from the same district reported this. In both the pre and post-assessments, almost 72% of HAs said babies are born healthier as a benefit of a small family. As a benefit of having a small family, 45.3% of HAs in the pre-assessment answered that children grow up more prosperously while in the post-assessment the percentage increased to 65%. Only 14% of HAs said that as a benefit of a small family, women can work and earn money for their family before the intervention, although in the post-assessment the percentage significantly increased to 57%.

In Sylhet and Chittagong, FWAs were interviewed about the benefits of having a small family. In the pre-assessment almost 70% of FWAs said that mothers are healthier, but after the intervention more than 95% of FWAs gave the same answer. 22.1% of FWAs from Sylhet and 23.7% of FWAs from Chittagong said mothers are less likely to die during childbirth before the intervention, whereas 71.4% of FWAs from Sylhet and 67.1% of FWAs from Chittagong talked about this benefit during the post-assessment. Before the intervention, only 6.5% of FWAs perceived that the mothers of small families are less likely to suffer maternal complications such as seizure, fistula etc.

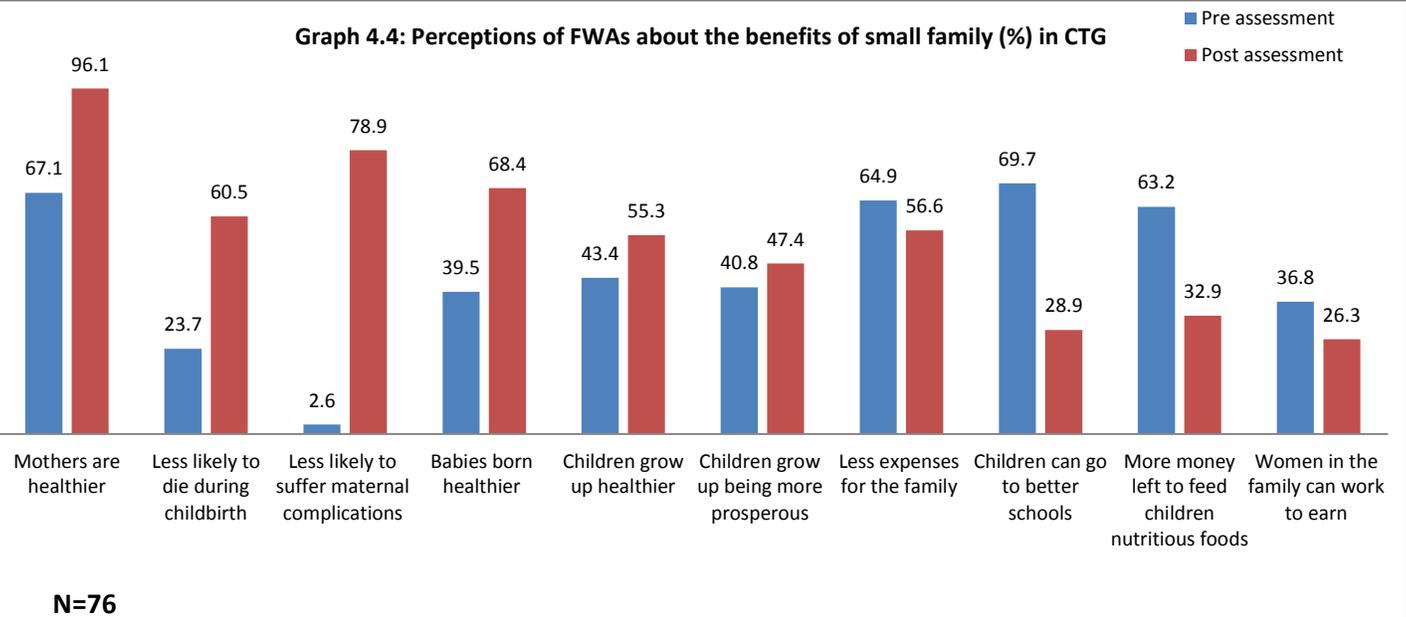


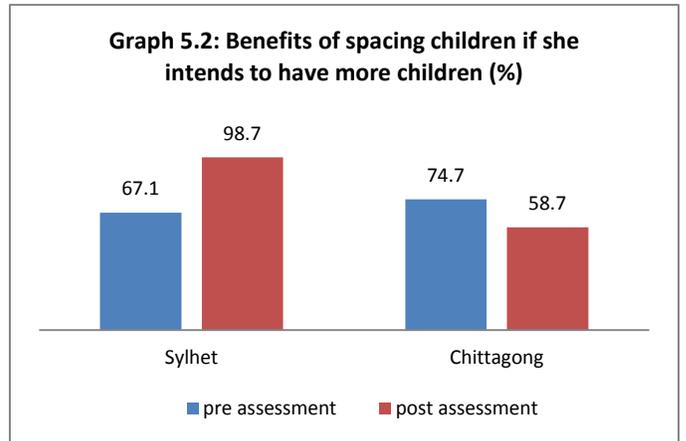
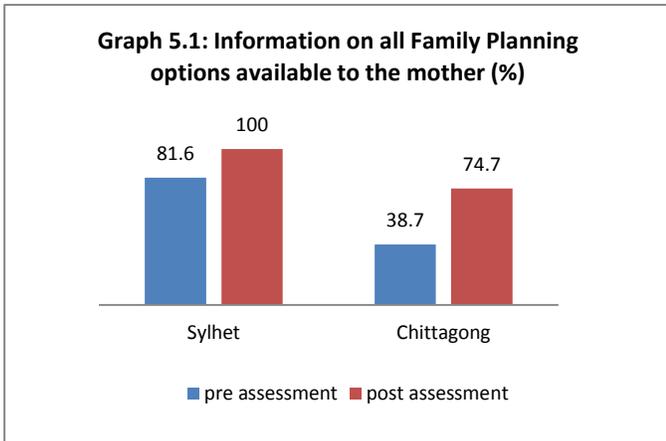
More than 75% of FWAs said babies are born healthier and 73.9% of FWAs said children grow up healthier. Before the intervention, only 30% of FWAs said children grow up more prosperously but after the intervention, the percentage doubled and the rate was 66.7%. Before the intervention, 67.3% of FWAs had an idea that small families spend less money, the percentage went down to 60.8% after providing the intervention. More than 70% of FWAs perceived that children of small families go to better schools before the intervention, therefore the percentage decreased by 20%. The perception also changed about the women who can work for their family to earn money among the FWAs of Sylhet and Chittagong. Before the intervention only 30% of FWAs had this kind of idea and after completion of the intervention more than 50% were aware of it.

Graph 4.3: Perceptions of FWAs about the benefits of small family (%) in Sylhet



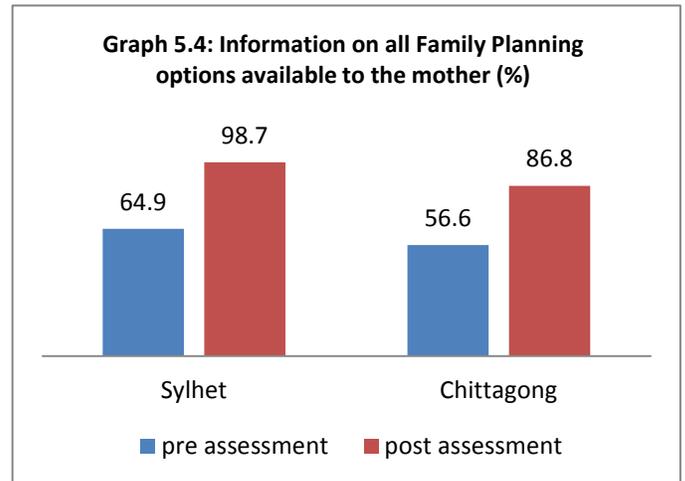
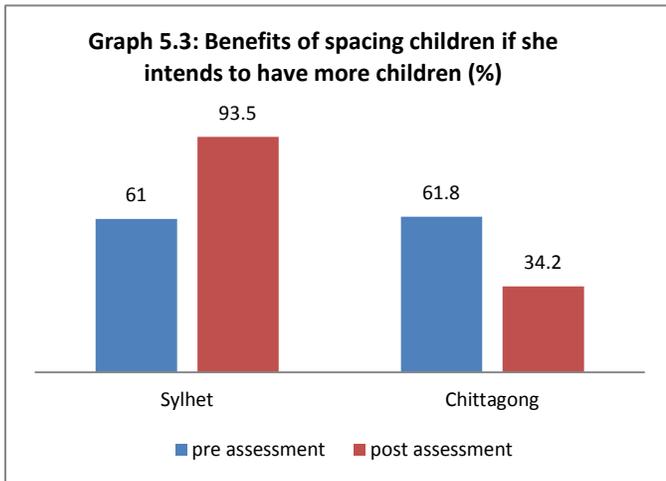
Graph 4.4: Perceptions of FWAs about the benefits of small family (%) in CTG





***HAs (Sylhet, N= 76, Chittagong, N=75)**

In pilot areas, when providing family planning advice to a client who has one child, more than 60% of HAs perceived that information on all family planning options were available to clients, while after the intervention more than 87% HAs said this information is available to their clients. In the pre-assessment, 70% of HAs talked about the benefits of birth spacing if any client wanted to have more children, on the other hand after the intervention the percentage increased to 78.8%.



***FWAs (Sylhet, N=77, Chittagong, N=76)**

In the pre-assessment, 60.8% of FWAs, in both Sylhet and Chittagong, thought that if a client has a child, she has knowledge of all of the family planning options and they are available to her. After the intervention the percentage increased by 30%. 61.4% of FWAs believed that if these clients intend to have more children they know the advantages of birth spacing, and after the intervention the percentage increased to 64.1%.

Table 15b: Perception of the UHC and Surjer Hashi staff about the benefits of having a small family

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Mothers are healthier	86	67	86	67	63	89	100	100	75	78	93	84	83
Less likely to die during childbirth	57	52	57	52	0	44	38	67	29	48	48	60	46
Less likely to suffer maternal complications	57	29	57	29	0	22	38	44	29	26	48	37	35
Babies born healthier	29	24	29	24	25	22	50	44	27	23	40	34	31
Children grow up healthier	71	91	71	91	25	89	50	100	48	90	61	96	74
Children grow up being more prosperous	43	0	43	0	13	0	38	33	28	0	41	17	22
Less expenses for the family	43	29	43	29	63	44	75	67	53	37	59	48	49
Children can go to better schools	57	67	57	67	75	44	75	67	66	56	66	67	64
More money left to feed children nutritious foods	57	48	57	48	38	44	50	67	48	46	54	58	52
Women in the family can work to earn	0	29	0	29	13	11	50	33	7	20	25	31	21
More happiness in conjugal life	14	0	14	0	13	0	50	0	14	0	32	0	12

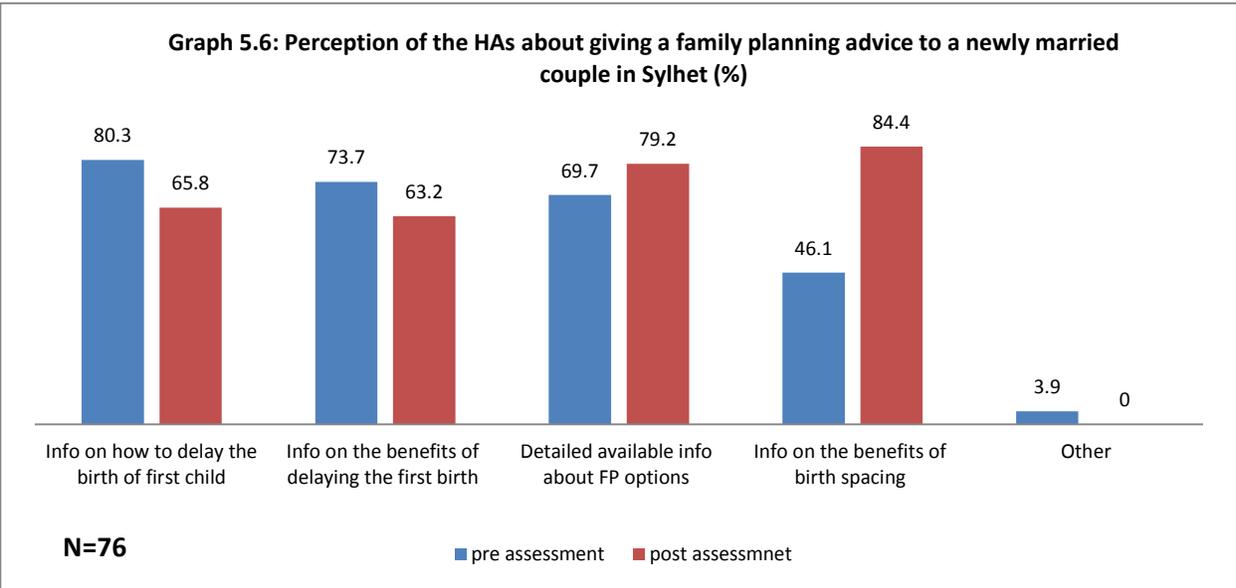
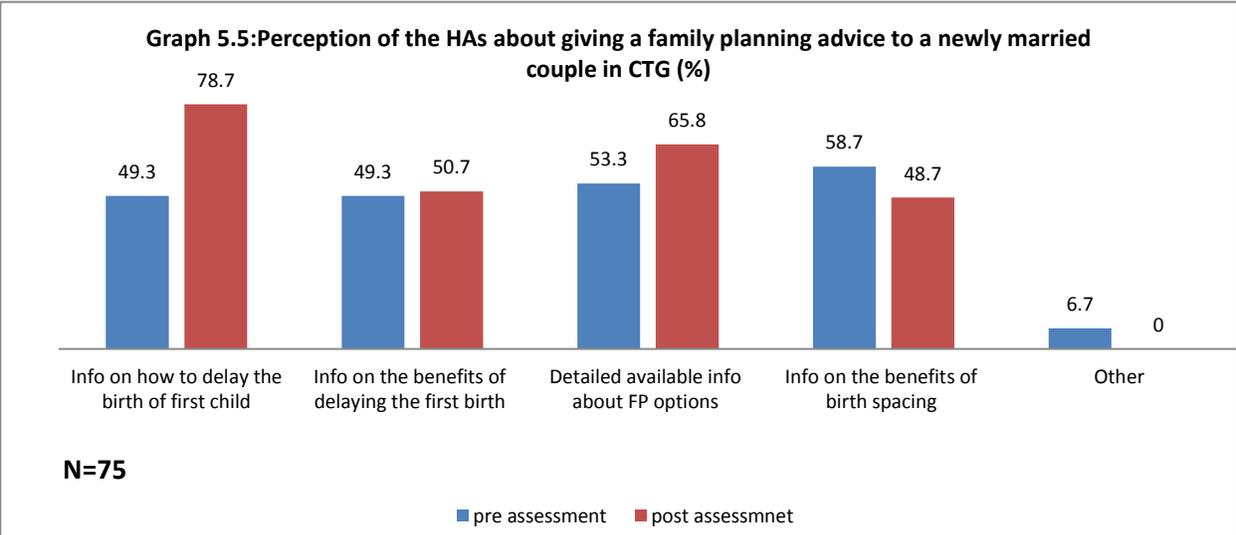
In the pre-assessment, it was seen that more than 75% of UHC staff knew that mothers are healthier in a small family, but when the post-assessment was done 93% of UHC staff were talking about this benefit of small family. Only 29% of UHC staff said that mothers are less likely to die during birth in the initial assessment, however the percentage was 48% in the post-assessment. Only 29% said the mothers are less likely to suffer different types of maternal complications in the pre-assessment, but the percentage rose sharply to 48% in the post-assessment. In the post-assessment, 27% of UHC staff answered that babies are born healthier and grow up healthier. 28% said that children grow up prosperously before intervention, but the percentage rose to 41% after the intervention. 48% of UHC staff said that the small families have more money to feed children with nutritious food but the percentage went up to 54% in the post-assessment.

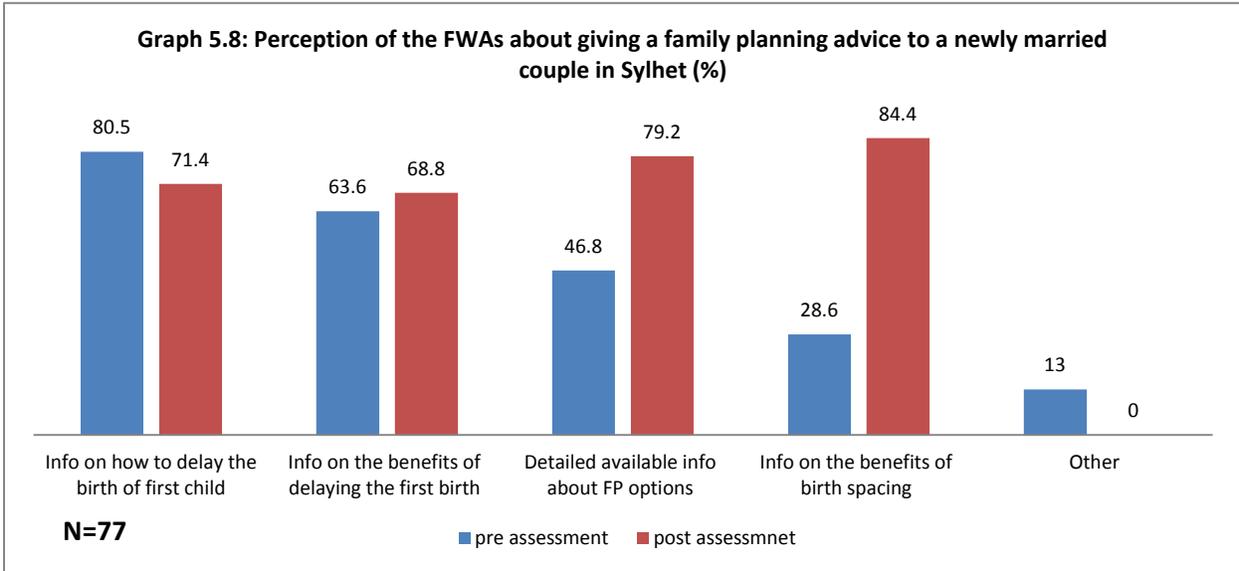
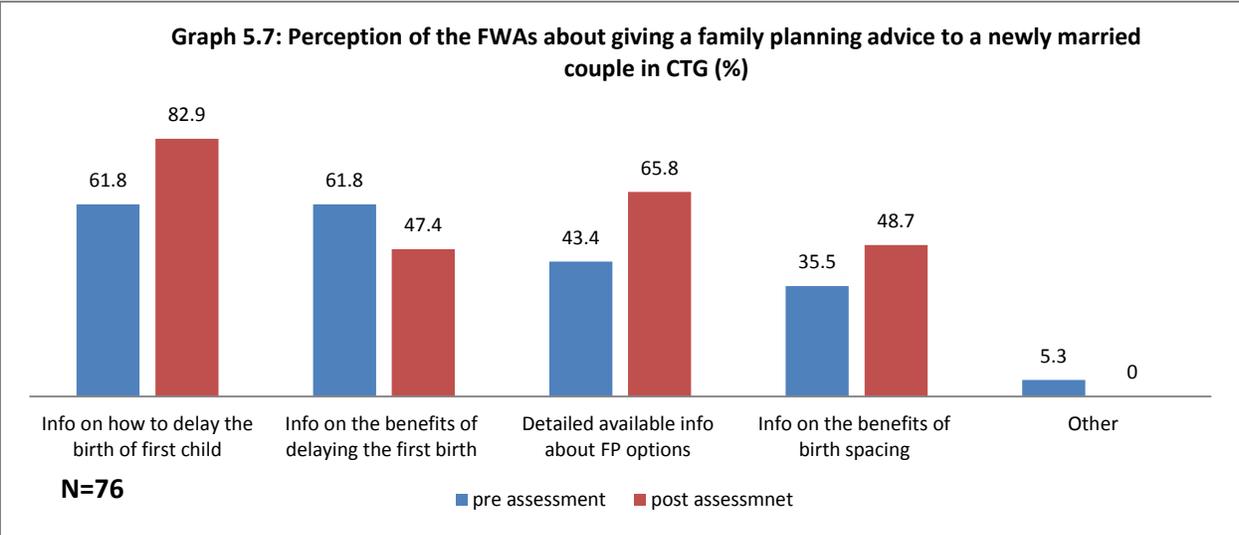
Before the intervention, the Surjer Hashi staff was asked about the benefits of a small family, the table depicts the percentage of the benefits answered by Surjer Hashi staff. 78% of staff said mothers are healthier in small families, 48% said they are less likely to die during childbirth and to suffer maternal complications, 23% said babies are born healthier, about 60% said children can go to better schools, 46% said the families have enough money to feed children nutritious foods and 20% said women can work for their family to earn money as benefits of small family. After the intervention, 84% of Surjer Hashi staff reported to know that a mother will remain healthier in a small family. Their knowledge on the other indicators also increased significantly.

In the pre-assessment, 60% of UHC staff said different types of family planning are available to the clients, in the post-assessment the percentage increased by 20%. 60% had a perception that the clients know the benefits of birth spacing if they intend to have more children before the intervention, but in the post-assessment it was seen that 100% of UHC staff have the same perception.

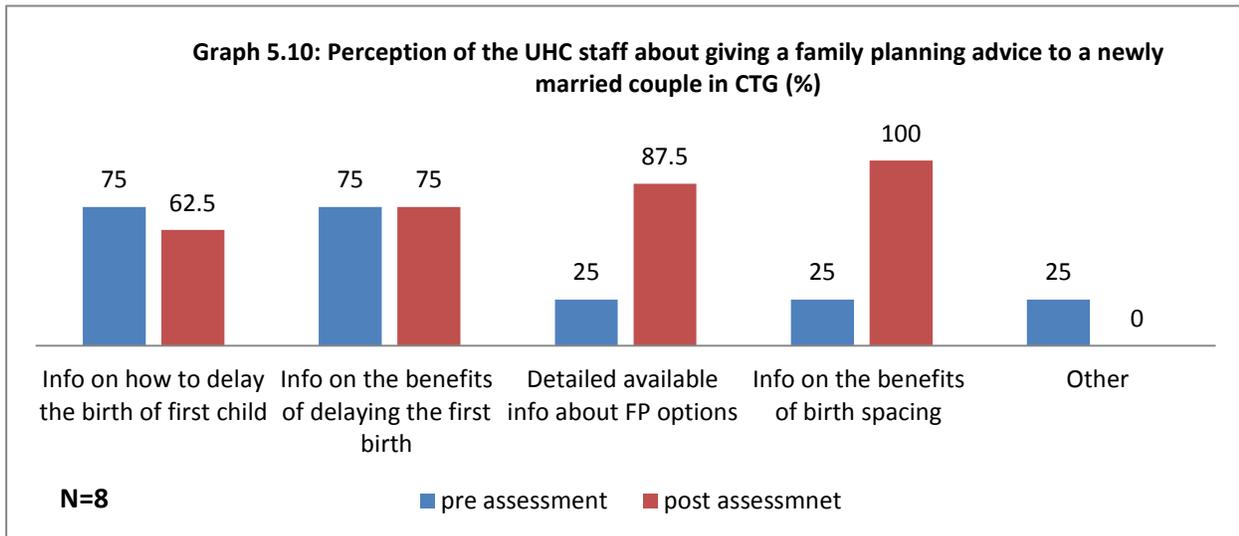
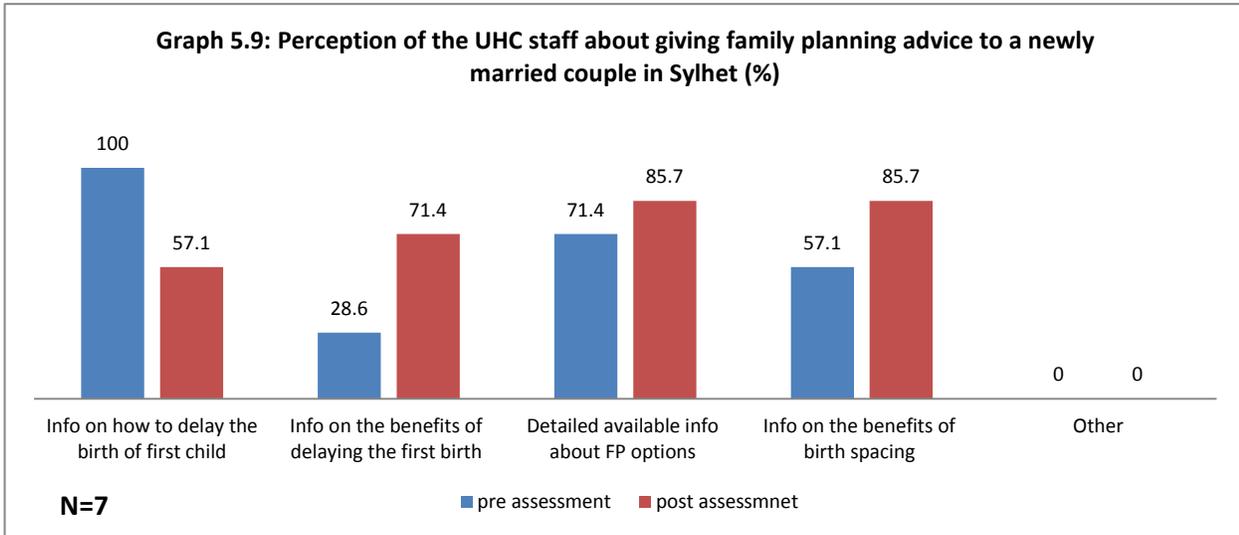
4.2.3 Counseling to Newly Married Couples

Almost 65% of HAs perceived in the pre-assessment that while they provide family planning advice to a newly married couple, they know the information on how to delay the birth of their first child, after providing the intervention, the percentage raised by 7%. In the pre-assessment 61.6% of HAs said they had an idea that the couples know the benefits of delaying the birth of the first child, the percentage decreased to 57% in the post-assessment. More than 60% of HAs had a perception that the newly married couple have detailed available information about family planning methods before the intervention, whereas the percentage rose to 72.5% in the post-assessment. In the initial assessment, more than 50% of HAs said the newly married couples know the information about the benefits of birth spacing while the percentage at post-assessment was 66.7%.





In the pilot areas, 71.2% of FWAs had a perception in the pre-assessment that when they give family planning advice to a newly married couple, the couples know the information on how to delay the birth of their first child, while in the post-assessment 77.1% had this kind of perception. Before the intervention, 62.7% had a perception that couples know the information on the benefits of delaying the birth of the first child but after providing the intervention, the percentage slightly decreased to 58.2%. After the intervention, 72.5% of FWAs perceived that couples knew detailed available information about family planning methods. Only 32% of FWAs believed that clients had information about the benefits of birth spacing before the intervention, after the intervention the percentage doubled to 66.7%.



More than 85% of UHC staff said they perceived that newly married couples have information on how to delay the birth of their first child in the pre-assessment, after the intervention only 60% had this perception. 53.3% of UHC staff thought that couples knew information on the benefits of delaying the birth of first child in the initial assessment but in the post-assessment the percentage increased by 20%. After the intervention, more than 85% of UHC staff said that newly married couples have detailed available information about family planning methods and 93.3% said they know the benefits of birth spacing.

4.2.4 Knowledge of Short-term FP methods

Table 16a: FWA and HA knowledge about short-term FP methods in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Condoms	97	97	100	99	91	95	97	99	94	96	99	99	97
Oral pills	99	97	100	99	85	97	99	92	92	97	99	95	96
Injectables	87	91	72	75	73	87	95	91	80	89	83	83	84
Lactational Amenorrhea	3	8	63	58	5	12	19	22	4	10	41	41	24
Traditional/Natural methods	9	10	65	62	9	18	27	28	9	14	46	45	29

In the pre-assessment, of the HAs that were interviewed, 94% said they knew about condoms as a family planning method, increasing to 98.7% after the intervention. Following the intervention, almost 100% of HAs knew about oral pills as a family planning method. 80% of HAs said they knew about injectables as a family planning method and after the intervention the percentage rose to 83.4%. Only 4% of HAs knew about Lactational Amenorrhea (LAM) before the intervention, but after the intervention 41.1% knew about this method. After the intervention, a large portion of HAs, 45.7% said that they knew about different types of traditional methods.

In both pre and post-assessment, more than 95% of FWAs said that a condom is a family planning method. In the pre-assessment, 90.9% of FWAs from Sylhet and 86.8% of FWAs from Chittagong said they knew about injectables as a family planning method, but in the post-assessment 75.3% of FWAs from Sylhet participated and from Chittagong the number was 90.8%. The decrease in reported knowledge of injectables cannot be explained. Since the same FWAs were interviewed for both the pre- and post-assessment. Only 9.8% of FWAs had knowledge about LAM as a method during the pre-assessment, yet in the post-assessment 40.1% FWAs had knowledge of it as a family planning method. 45.1% of FWAs had knowledge about the traditional methods.

Table 16b: UHC and Surjer Hashi staff knowledge about short-term FP methods in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Condoms	100	100	100	100	100	100	100	100	100	100	100	100	100
Oral pills	100	100	100	100	75	100	100	100	87	100	93	100	95
Injectables	86	95	86	100	75	89	88	100	80	92	87	100	90
Lactational Amenorrhea	0	10	57	24	13	11	25	44	7	11	40	34	23
Traditional/Natural methods	14	10	57	29	13	11	63	44	13	11	60	37	30

The UHC staff were most knowledgeable about the condom as a family planning method. In both pre and post-assessments, 100% of UHC staff said that they knew about condoms as a family planning method. In the pre-assessment, more than 85% of UHC staff knew about oral contraceptive pills and the percentage increased to 93.3% after the intervention. In the post-assessment, more than 86% of UHC staff knew about injectables as a FP method whereas the percentage was 80% in pre-assessment. Before the intervention, very few UHC staff knew about Lactational Amenorrhea, but after the intervention the percentage rose sharply to 40%. Before the intervention, only 13.3% of UHC staff knew about traditional method but after the intervention it was 60%.

4.2.5 Knowledge of Long Acting and Permanent Methods

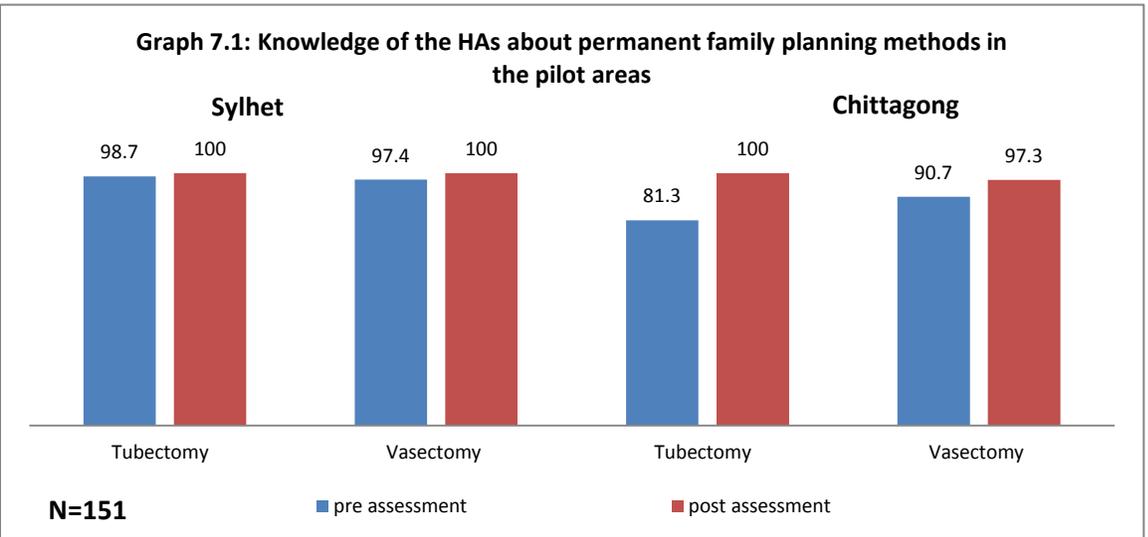
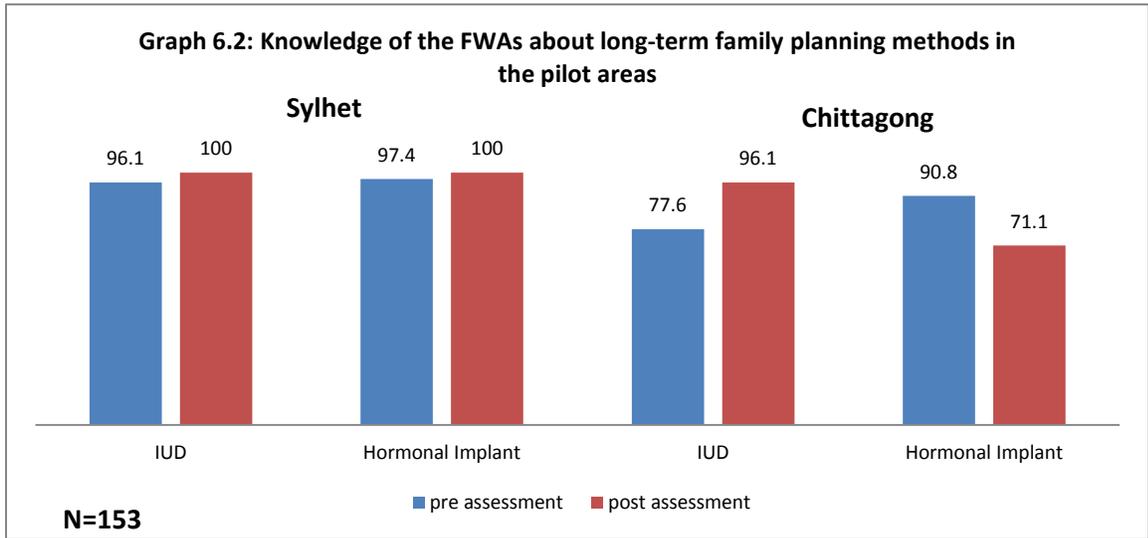
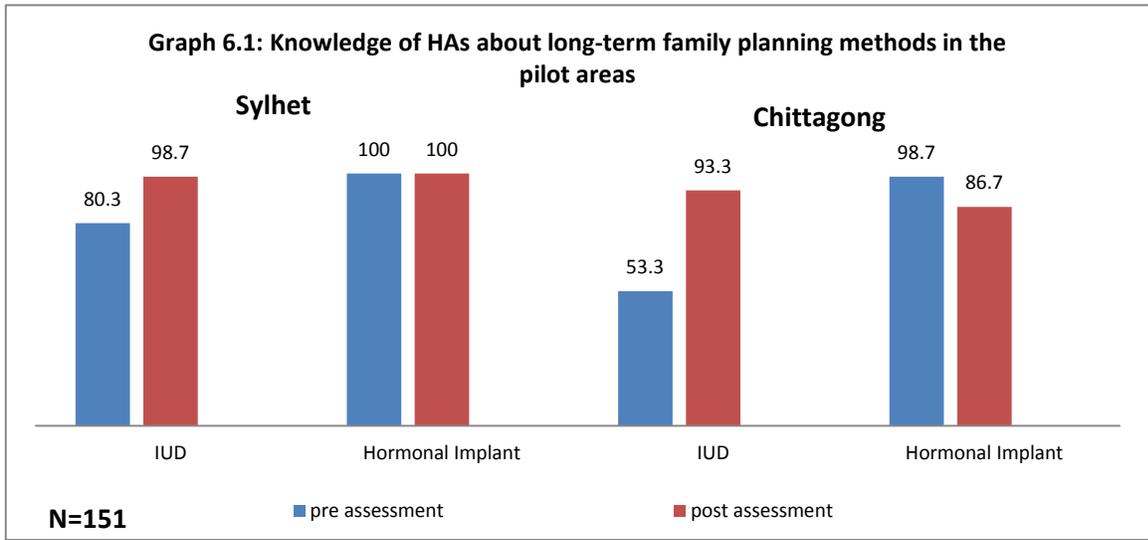
Table 17a: Knowledge of the HAs and FWAs about the benefits of LAPMs in pilot areas

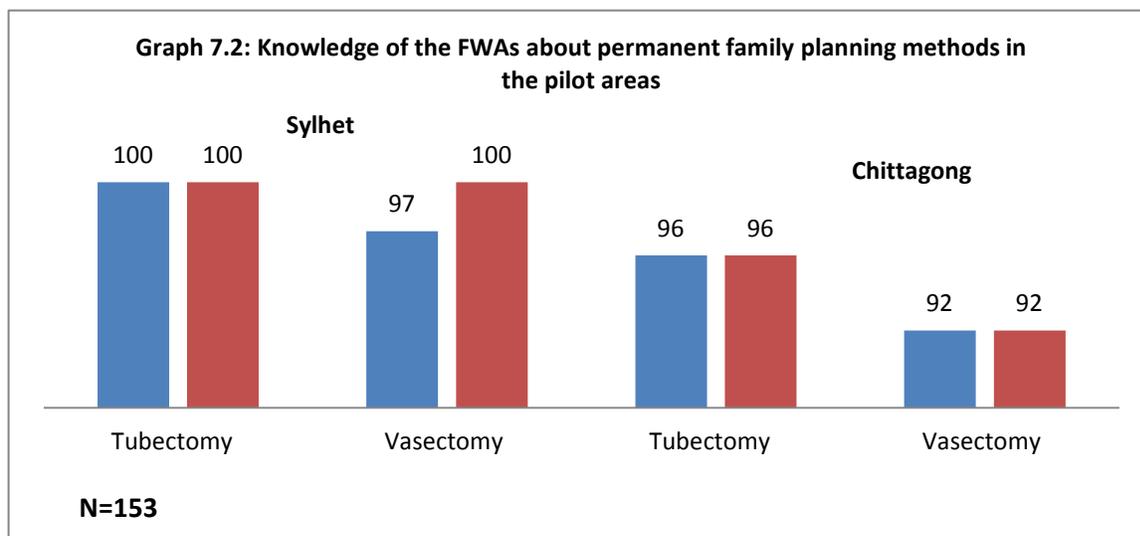
Indicators	Sylhet %				Chittagong %			
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment	
	HA	FWA	HA	FWA	HA	FWA	HA	FWA
Lasts longer	95	87	100	95	67	79	50	75
Less harassment	91	91	100	97	91	86	71	92
Less likely to fail	9	12	95	97	37	47	61	68
There is no service charge/fee for clients	1	12	71	70	16	18	21	33
Client gets travel/transportation cost	3	13	71	70	8	8	28	29
Other	4	21	00	00	3	3	00	00

Regarding Long Acting Permanent Methods (LAPM), 90.7% of HAs thought LAPMs cause less harassment to the client, and 80% stated it as a long lasting method during pre-assessment. Knowledge on the availability of free LAPM services was also reported by only 8.6% of HAs. 5.3% of HAs knew that clients could get transportation cost paid for once they come to receive the method. After the intervention, more HAs reported to know about the indicators. More than 80% stated LAPM as a long lasting method which is less likely to fail. 97.4% stated LAPMs as a method where clients have less chance of harassment.

88.2% of FWAs found it less harassing and 83% stated it as a method that lasts longer during pre-assessment. 10.5% of FWAs had the knowledge that clients get transportation cost paid for once they come to take the method. After the intervention, more FWAs reported to know about the indicators. Over 80% of FWAs stated LAPMs as a long lasting method which is less likely to fail. More FWAs (49.7%) reported during the post-assessment that clients get transportation cost paid for if they come to take the method. Only 15% of FWAs during the pre-assessment knew that the cost of LAPM methods is free whereas 51.6% in the post-assessment reported to know about the provision.

Again, for both HAs and FWAs, the results show a decrease in the knowledge of hormonal implants as a method of family planning. Both the eLearning and eToolkits did not emphasize hormonal implants, and thus field workers may have been less likely to list it as one when they were asked to recall the methods during the post-assessment interview.





HAs and FWAs knowledge of tubectomy and vasectomy, also known as permanent family planning methods, was high in both the pre- and post-assessments, with 92% or greater knowledge of permanent methods for both HAs and FWAs during the post-assessment.

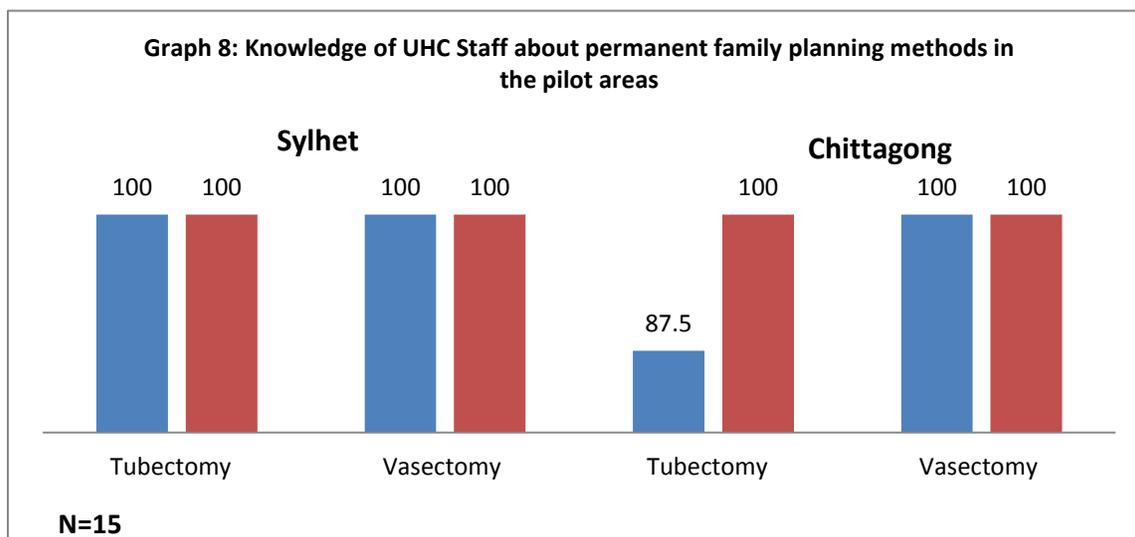
Table 17b: UHC and Surjer Hashi staff knowledge about the benefits of LAPMs in the pilot areas

Indicators	Sylhet %				Chittagong %			
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment	
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi
Lasts longer	86	100	100	100	75	100	100	100
Less harassment	100	52	100	71	100	33	100	44
Less likely to fail	14	48	43	62	38	22	50	44
There is no service charge/fee for clients	00	00	14	14	13	00	38	00
Client gets travel/transportation cost	00	00	00	00	00	00	38	00
Other	-	-	-	-	25	-	25	-

All UHC staff (100%) found LAPMs less harassing and 80% stated it as a long lasting method during the pre-assessment. After the intervention, more UHC staff reported to know about the indicators. 100% of UHC staff stated LAPMs as a long lasting method which is less likely to fail and has less chance of harassment. More FWAs (80%) reported during the post-assessment that clients get transportation cost paid for if they come to take the method. Only 6.7% of UHC staff during pre-assessment knew that the cost of LAPM methods is free whereas 73.3% in the post-assessment reported to know about the provision.

66.9% of the UHC staff had knowledge of IUDs during pre-assessment whereas this number rose up to 99.3% after the intervention. Overall, in both districts, 96.7% of UHC staff had knowledge of hormonal implants before the intervention, this percentage dropped slightly to 93.4% in the post-assessment. This slight drop cannot easily be explained, since the same UHC staff were interviewed for both the pre- and post-assessments.

All of the UHC staff, in Sylhet and Chittagong, reported to have knowledge on vasectomy and tubectomy in the post-assessment.



4.2.6 Perceptions of Target Client Group Receiving FP Messaging

Table 18: Perception of the HAs and FWAs about the target clients and targeted times for providing information about family planning methods in pilot areas

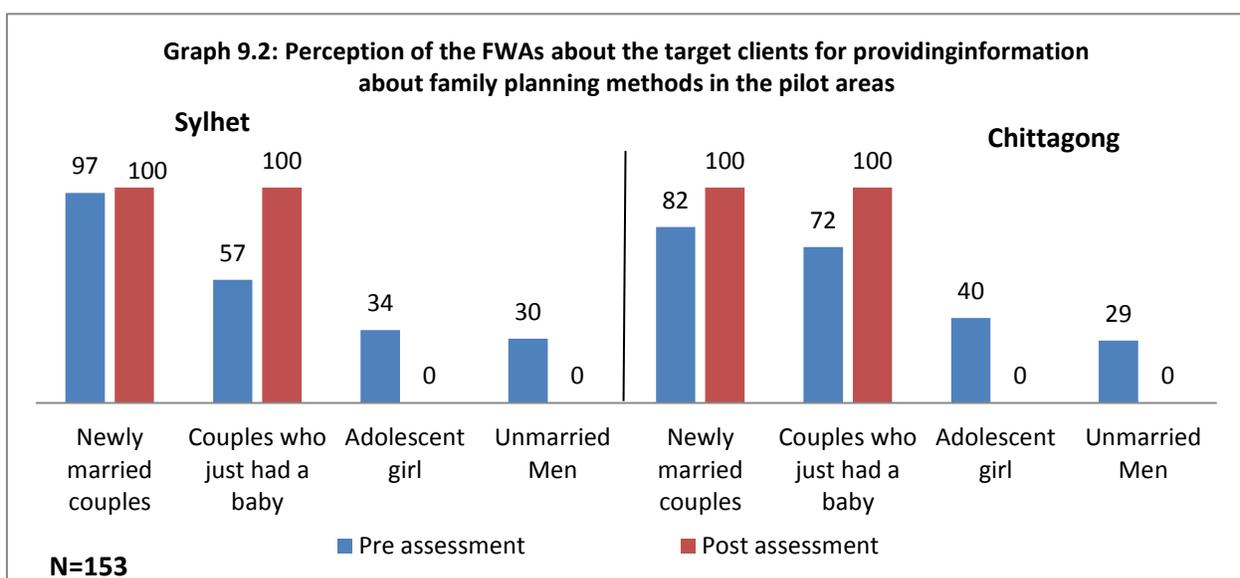
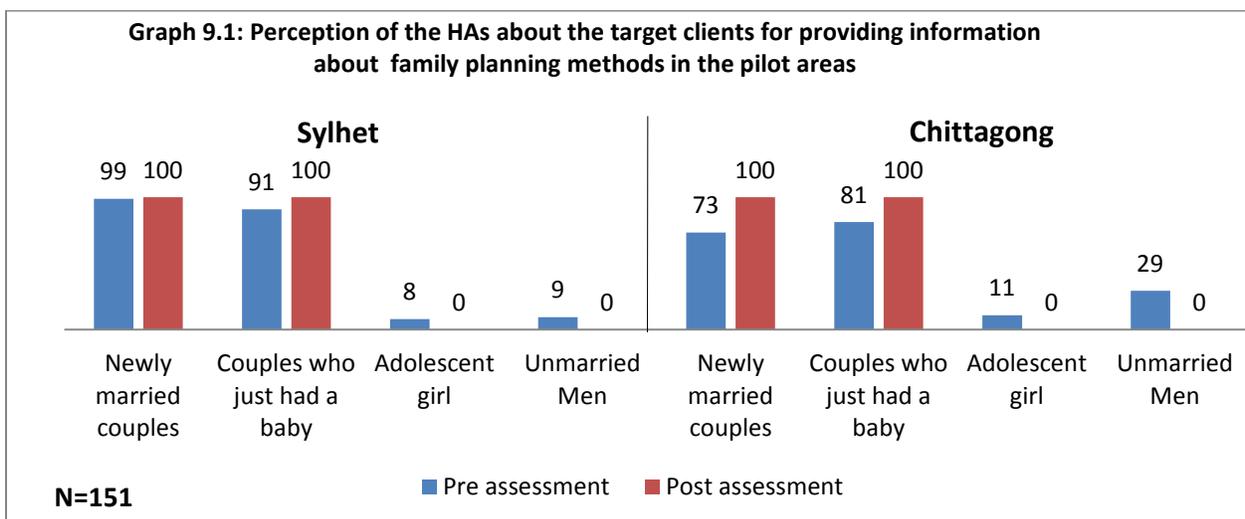
	Sylhet %				Chittagong %			
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment	
	HA	FWA	HA	FWA	HA	FWA	HA	FWA
Adolescent girls	8	34	00	00	11	40	00	00
Unmarried men	9	30	00	00	30	29	00	00
Newly married couples	99	97	76	100	73	82	100	100
Couples who just had a baby	91	57	76	100	81	72	100	100
During EPI session	52	26	58	78	64	34	69	77
During ANC and PNC visits	58	24	47	70	24	55	42	41
Others	23	74	00	00	42	30	00	00

At the initial stage of the project most HAs, around 86% answered that newly married couples, and other 86% answered that couples who just had a baby, are the target client group for providing information about family planning methods. Some of the HAs, around 19.2% thought unmarried men are the right people to provide family planning methods to. But this rate changed after the intervention and all of the respondents answered that newly married couples and couples who just had a baby are the target client group for providing information about family planning methods.

Among HAs 57.8% answered that Expanded Program on Immunization (EPI) sessions and 40.6% answered that ANC and PNC visits are the correct times to provide FP methods. Some people mentioned other times also but at the end of the project, all of the respondents said that the time of EPI sessions and ANC and PNC visits is the right time to provide information about FP methods.

This data table presents information about perception of the FWs about the target clients and targeted times for providing information about family planning methods in the pilot areas. Before the intervention, some of the respondents mentioned adolescent girls and unmarried men as the target group and their rate is 36.6% and 29.4% respectively, while most of the respondents mentioned newly married couples and couples who just had a baby and their rate was 89.7% and 64.7%, respectively. After the intervention, all FWAs mentioned newly married couples and couples who just had a baby as their target audience.

At the beginning of the study, 30.3% said EPI sessions and 40.4% said that ANC and PNC sessions are the right time to provide information on FP while almost half of the respondents mentioned other times. However, after the intervention this number rose to 77.3% for EPI sessions and 60.9% for ANC and PNC sessions.



4.3 Knowledge of Nutrition

4.3.1 Understanding of Breastfeeding

Table 19a: Understanding of the HAs and FWAs about exclusive breastfeeding in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Infant should only be breastfeed throughout a certain period of time	96	92	0	0	68	68	3	7	82	80	2	4	42
Water can be given along with mothers' milk	4	3	0	0	1	7	5	0	3	5	3	0	3
Only breast milk and not even a drop of water should be given for six months	91	74	100	100	73	87	92	93	82	81	96	97	89

In the pre-assessment, a total of 82% of HAs thought that infants should only be breastfed through a certain period of time. As the number of respondents was less in the post-assessment, the rate of knowledge of HAs with regards to infants only being breastfed through a certain period of time decreased, and the rate went down to 1%. Before the intervention 3% of HAs reported that water can be given along with the mother's milk, this rate was the same after the intervention was given. 82% of HAs knew that only breastmilk, and not even a drop of water, should be given until six months. This percentage increased to 96% after the intervention.

Before the intervention, 80.4% of FWAs knew that infants should only be breastfed through a certain period of time and after the intervention this percentage is 3.3% because the number of respondents is less. In the pre-assessment, a total of 4.6% FWAs thought that water can be given along with the mother's milk. In the pre-assessment, 80.4% of FWAs knew that only breast milk and not even a drop of water should be given for six months, this rate increased to 96.7% after post-assessment as the number of respondent was increased

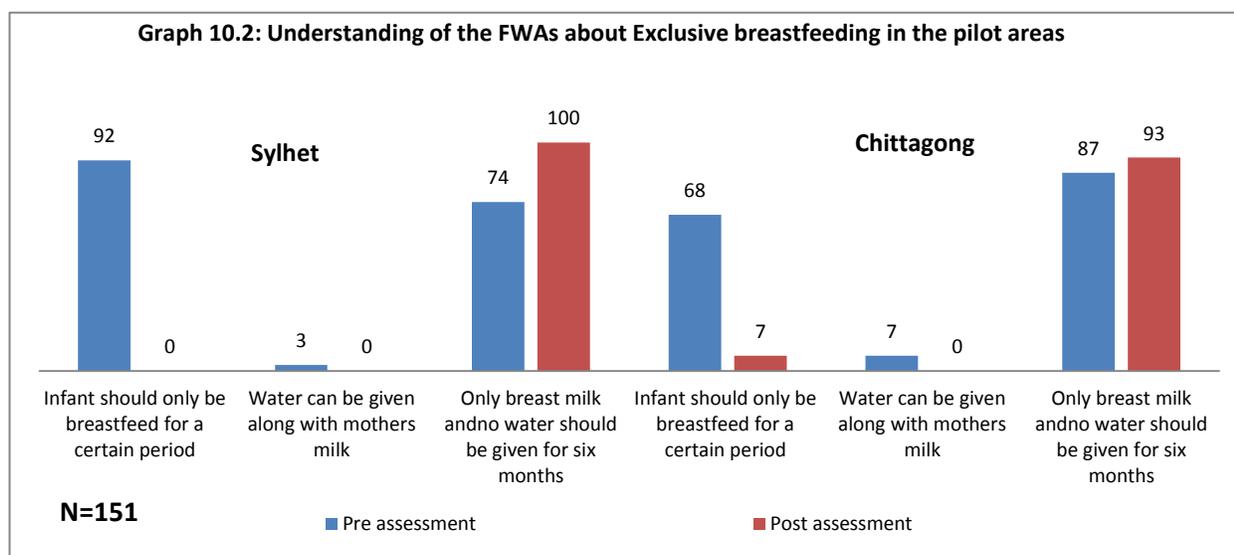


Table 19b: Understanding of the UHC and Surjer Hashi staff about exclusive breastfeeding in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Infant should only be breastfed throughout a certain period of time	100	38	100	40	88	44	90	44	94	41	95	42	68
Water can be given along with mother's milk	14	0	20	0	0	0	0	0	7	0	10	0	4
Only breast milk and not even a drop of water should be given for six months	71	81	100	90	50	78	100	80	61	80	100	85	82

The UHC and Surjer Hashi staff who understand that infants should only be breastfed through a certain period of time is about 68%. Only 4% of the UHC and Surjer Hashi staff thought that water can be given along with mother's milk. Almost 82% of UHC and Surjer Hashi staff understood that only breast milk and not even a drop of water should be given for six months.

Table 20: Approaches taken by the HAs and FWAs to show the mother appropriate positioning and attachment during breastfeeding in pilot areas

Indicator	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Show her hands on how to do it	65	61	100	94	60	80	63	66	63	71	82	80	74
Show her picture and explain	66	62	99	100	81	65	92	86	74	64	96	93	82

Indicator	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Explain verbally	78	66	88	82	45	68	60	54	62	67	74	68	68

In the pre-assessment, a majority of the HAs (74%) reported to show the mother a picture and explain appropriate positioning and attachment during breastfeeding while 63% used to explain practically (show positioning and attachment using hands) and 62% did so verbally. In the Sylhet region, most of the HAs (78%) reported to explain positioning and attachment verbally and in the Chittagong region, pictorial explanation was found to be the most frequently used (81%). After the intervention in Chittagong, during post-assessment, 92% of HAs reported to show the mother a picture to explain appropriate positioning and attachment during breastfeeding while 63% used to explain practically (show positioning and attachment using hands) and 60% did so verbally. In the Sylhet region, 100% reported to explain practically.

In the pre-assessment, a majority of the FWAs (63%) reported to show the mother how to appropriately position and breastfeed practically while 74% explained through pictures and 62% did so verbally. In the Sylhet region, most of the FWAs (66%) reported explaining verbally and in the Chittagong region hands on explanation was the most frequently used (80%). After the intervention, during the post-assessment, 92.8% of FWAs reported to show the mother a picture and explain appropriate positioning and attachment during breastfeeding while 79.7% explained it practically (show positioning and attachment using hands) and 68% did so verbally. Pictorial explanations were practiced by 100% of the FWAs in Sylhet and the majority of the FWAs (85.5%) in Chittagong.

Table 21: Measures taken by the HAs and FWAs for showing the positioning and attachment for breastfeeding in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Infant's and mother's bodies will be lined up a certain way.	50	20	95	95	23	34	74	74	37	27	85	85	59
The mother should be comfortably standing, seated or lying down, whatever makes her comfortable.	72	73	92	92	63	49	62	62	68	61	77	77	71
The mother's body should not be awkward but relaxed and she should be supported. If she is seated then use a pillow or something to prop	20	29	97	97	25	41	57	57	23	35	77	77	53

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
her up. She should not be bent over in a painful position.													
Baby's body should be supported and the forehead and shoulder should be aligned with the breast so baby's mouth can easily reach the breast	28	13	97	97	36	18	55	55	32	16	76	76	50
The baby's face should be turned towards the mother's breast.	37	31	74	74	39	33	57	57	38	32	66	66	51
The baby's nose should be towards the mother's nipple.	49	16	65	65	20	32	45	45	35	24	55	55	42
The infant should be very close to the mother's body so that baby's mouth can be very close to the breast.	58	36	92	92	61	55	42	42	60	46	67	67	60
The baby should open the mouth wide and mother should place as much of the breast in the baby's mouth as possible.	82	81	91	91	48	65	37	37	65	73	64	64	67
The baby's body should be lined up well, and especially the baby's bottom is supported and held.	16	16	70	70	8	18	12	12	12	17	41	41	28

Table 22a: Approaches taken by the HAs and FWAs for convincing the mother that the baby is getting enough breast milk during the first six months in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Baby urinates at least 6 times a day	80	82	100	82	81	83	63	83	81	83	82	82	82
Baby is growing well	95	94	97	97	93	95	96	93	94	95	97	95	95
Baby does not cry	97	100	74	100	92	91	97	91	95	100	86	96	94
Others	3	13	5	15	0	7	0	7	2	10	3	11	7

82% of the HAs and FWAs agree that a baby should urinate at least 6 times a day and this percentage is almost the same in the pre-assessment and post-assessment periods. HAs and FWAs who know that the baby is growing well is about 95% and this percentage does not vary so much

from the pre-assessment to the post-assessment period. 94% of the HAs and FWAs understand that a baby not crying is an indicator that it is receiving enough breast milk.

Table 22b: Approaches taken by the UHC and Surjer Hashi staff for convincing the mother that the baby is getting enough breast milk during the first six months pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Baby urinates at least 6 times a day	100	67	100	70	75	78	100	80	88	73	100	75	84
Baby is growing well	100	43	100	43	88	44	100	44	94	44	100	44	71
Baby does not cry	86	100	86	100	88	100	100	100	87	100	93	100	95
Others	14	0	0	0	13	0	0	0	14	0	0	0	4

84% of UHC and Surjer Hashi staff agree that a baby should urinate at least 6 times a day. UHC and Surjer Hashi staff who understand that baby is growing well are about 71%. 94% of the UHC and Surjer Hashi staff understand that a baby not crying is an indicator that it is receiving enough breast milk.

Table 23a: Field worker knowledge about mother's action for ensuring that the infant is getting enough milk in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Mother should breastfeed frequently day and night	86	65	100	97	68	75	58	75	77	70	79	86	78
Mother should breastfeed for a long period of time	72	51	100	96	64	57	64	80	68	54	82	88	73
Position and attachment should be correct	16	34	95	99	27	26	30	53	22	30	63	76	48
Infant should not be given anything else except breast milk	57	35	93	92	28	38	39	30	43	37	66	61	52
Others	1	22	1	25	4	7	0	0	3	15	1	13	8

77% of the HAs reported in the initial assessment of the study that, the mother should breastfeed frequently day and night. The rate of HAs with similar knowledge increased to 79% after the intervention. The rate of HAs knowledge about breastfeeding position increased significantly from 22% to 63% after the pilot project. The knowledge on exclusive breastfeeding also rose to 66% which was previously reported 43%.

70% of FWAs reported in the initial assessment of the study that, the mother should breastfeed frequently day and night. The rate of FWAs with similar knowledge increased to 86% after the intervention. The rate of FWAs knowledge about breastfeeding position increased significantly from 30% to 76% after the pilot project. The knowledge on exclusive breastfeeding also rose to 61% which was previously reported at 37%.

Table 23b: Knowledge of the UHC and Surjer Hashi staff about mother's action for ensuring that the infant is getting enough milk in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Mother should breastfeed frequently day and night	86	86	86	90	89	89	100	89	88	88	93	90	90
Mother should breastfeed for a long period of time	57	52	86	55	44	44	88	60	51	48	87	58	61
Position and attachment should be correct	14	48	86	50	44	44	50	100	29	46	68	75	55
Infant should not be given anything else except breast milk	14	14	100	14	11	11	100	50	13	13	100	32	40
Others	43	0	45	0	0	0	0	10	22	0	23	5	13

8% of the UHC staff reported that in the initial assessment of the study that, mother should breastfeed frequently day and night. The rate of UHC staff with similar knowledge increased to 93% after the intervention. The rate of UHC staff knowledge about breastfeeding position increased significantly from 29% to 68% after the pilot project. The knowledge on exclusive breastfeeding also rose to 100% which was previously reported at 13%.

88% of the Surjer Hashi staff reported in the initial assessment of the study that, mother should breastfeed frequently day and night. The rate of Surjer Hashi staff with similar knowledge increased to 90% after the intervention. The rate of staff knowledge about breastfeeding position increased significantly from 46% to 75% after the pilot project. The knowledge on exclusive breastfeeding also rose to 32% which was previously reported at 13%.

Table 24a: Perception of the HAs and FWAs about the possibility of a malnourished mother to breastfeed sufficiently in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
No, it is not possible	90	83	78	65	97	78	52	79	94	81	88	72	84
Yes, even a malnourished mother can also breastfeed adequately	11	17	22	35	3	22	48	21	7	20	13	28	34

During the pre-assessment, 94% of HAs perceived that there is no possibility of a malnourished mother to breastfeed her child sufficiently which dropped down to 88% after the intervention. 81%

of FWAs perceived that there is no possibility of a malnourished mother to breastfeed her child sufficiently which dropped down to 72% after the intervention.

Table 24b: Perception of UHC and Surjer Hashi staff about the possibility of a malnourished mother to breastfeed sufficiently in the pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	
No, it is not possible	85.7	71.4	71.4	74	75	77.8	50.0	80	80	75	61	77	73
Yes, even a malnourished mother can also breastfeed adequately	14.3	28.6	71.4	32	25	22.2	50.0	25	20	26	61	29	34

During pre-assessment, 80% of UHC staff perceived that there is no possibility of a malnourished mother to breastfeed her child sufficiently which dropped down to 61% after intervention.

4.3.2 Understanding of Complementary Feeding

Table 25a: Perception of the HAs and FWAs on the importance of giving appropriate complementary feeding for children after a certain age in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Mothers milk is not enough	75	87	65	69	43	42	59	50	59	65	62	60	62
Children grow very fast so need enough food	86	22	99	99	71	59	79	58	78	41	89	78	72
For physical growth	97	95	100	100	93	86	84	84	95	90	92	92	92
For brain development	82	79	90	92	73	62	83	79	78	71	86	86	80
Lack of proper nutrition can cause irreversible damage to children's physical and mental growth during this age	16	29	100	100	32	34	100	100	24	31	100	100	64
Others	3	3	0	0	15	12	0	0	9	7	0	0	4

The majority of the HAs (95%) in the pilot areas perceived before intervention that, giving appropriate complementary feeding for children after a certain age is good for physical growth. There were some other perceptions like, 78% of HAs thought that complementary food is needed because children grow very fast and thus need enough food, 78% perceived that complementary

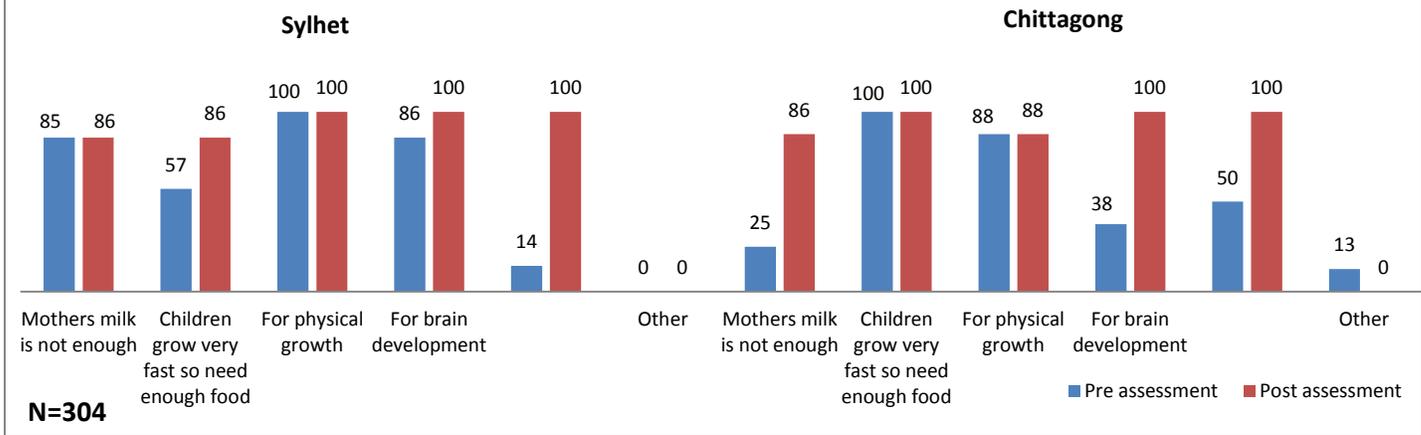
food is required for brain development while 24% perceived that complementary feeding is essential to protect children from lack of nutrition which may cause irreversible damage to children's physical and mental growth during this age. 59% of HAs believed that mother's milk is not enough for the children after a certain period of time.

The majority of the FWAs (90%) in the pilot areas perceived before intervention that, giving appropriate complementary feeding for children after a certain age is good for physical growth. There were some other perceptions like, 41% of FWAs thought that complementary food is needed because children grow very fast and thus need enough food, 71% perceived that complementary food is required for brain development while 31% perceived that complementary feeding is essential to protect children from lack of nutrition which may cause irreversible damage to children's physical and mental growth during this age. 65% of FWAs believed that mother's milk is not enough for the children after a certain period of time. In contrast, after the intervention, the perceptions changed. During the post-assessment, it was found that, 100% of the FWAs now perceived that lack of nutrition can cause irreversible damage to children's mental and physical growth and thus complementary feeding is essential after a certain age while 92% believed that complementary feeding is needed for physical growth.

Table 25b: Perception of the UHC and Surjer Hashi staff on the importance of giving appropriate complementary feeding for children after a certain age in pilot area

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	
Mothers milk is not enough	86	81	86	82	25	44	88	90	53	70	87	86	74
Children grow very fast so need enough food	57	14	86	15	100	22	100	100	80	17	93	58	62
For physical growth	100	100	100	100	88	89	88	90	93	97	93	95	95
For brain development	86	86	100	100	38	100	100	100	60	90	100	100	88
Lack of proper nutrition can cause irreversible damage to children's physical and mental growth during this age	14	38	100	100	50	33	100	100	33	37	100	100	68
Others	0	0	0	0	13	0	0	0	7	0	0	0	2

Graph 11.3: Perception of the UHC Staff on the importance of giving appropriate complementary feeding for children after a certain age in the pilot areas



The majority of the UHC staff (93%) in the pilot areas perceived before intervention that, giving appropriate complementary feeding for children after a certain age is good for physical growth. There were some other perceptions like, 80% of UHC staff thought that complementary food is needed for children because they grow very fast and thus need enough food, 60% perceived that complementary food is required for brain development while 33% perceived that complementary feeding is essential to protect children from lack of nutrition which may cause irreversible damage to children’s physical and mental growth during this age. 53% of UHC staff believed that mother’s milk is not enough for the children after a certain period of time. In contrast, after the intervention, the perceptions changed. During the post-assessment, it was found that, 100% of the UHC staff now perceived that complementary feeding is essential to prevent irreversible damage to children’s mental and physical growth and for brain development while 93.3% believed that complementary feeding is needed for physical growth.

Most of the Surjer Hashi staff (97%) in the pilot areas perceived before the intervention that, giving appropriate complementary feeding for children after a certain age is good for physical growth. There were some other perceptions like, 17% Surjer Hashi staff thought that complementary food is needed for children because they grow very fast and thus need enough food, 90% perceived that complementary food is required for brain development while 37% perceived that complementary feeding is essential to protect children from lack of nutrition which may cause irreversible damage to children’s physical and mental growth during this age. 70% of Surjer Hashi staffs believed that mother’s milk is not enough for the children after a certain period of time.

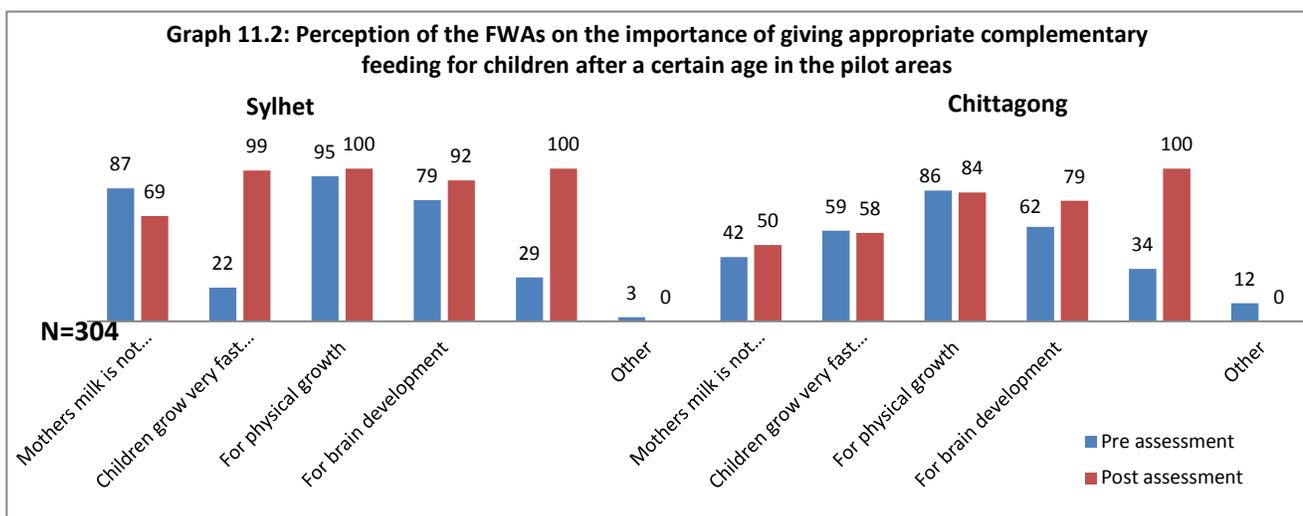
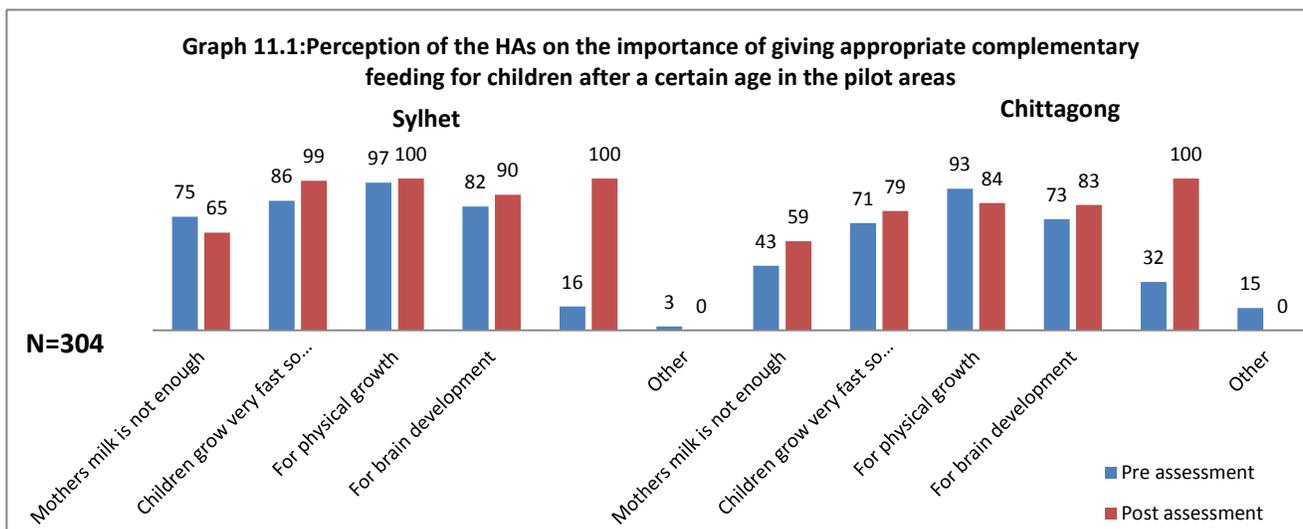


Table 26a: Types of complementary food recommended by HAs and FWAs to their clients in the pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Khichuri	100	94	97	95	92	92	99	97	96	93	98	96	96
Family food	45	18	97	97	61	59	96	99	53	39	97	98	72
Animal Based food	55	46	95	97	56	47	80	95	56	47	88	96	72
Suji	71	14	75	78	32	19	60	70	52	17	68	74	53
Whatever they want to eat	1	1	96	96	3	5	91	90	2	3	94	93	48
Others	34	86	37	90	69	79	75	79	52	83	56	85	69

The pre-assessment data showed that, 96% of HAs recommended khichuri as a complementary food to their clients. They recommended some other foods like family food (53%), animal-based food (56%), and suji (52%). 2% of HAs recommended to give the child whatever they want. A large number of HAs (52%) used to recommend varieties of foods that were not categorized in the study.

After the intervention, recommendation of family food, animal-based food and suji increased significantly to 97%, 87% and 68% respectively while khichuri was recommended by most (98%). No food items other than these were recommended by the HAs in the pilot areas after the intervention.

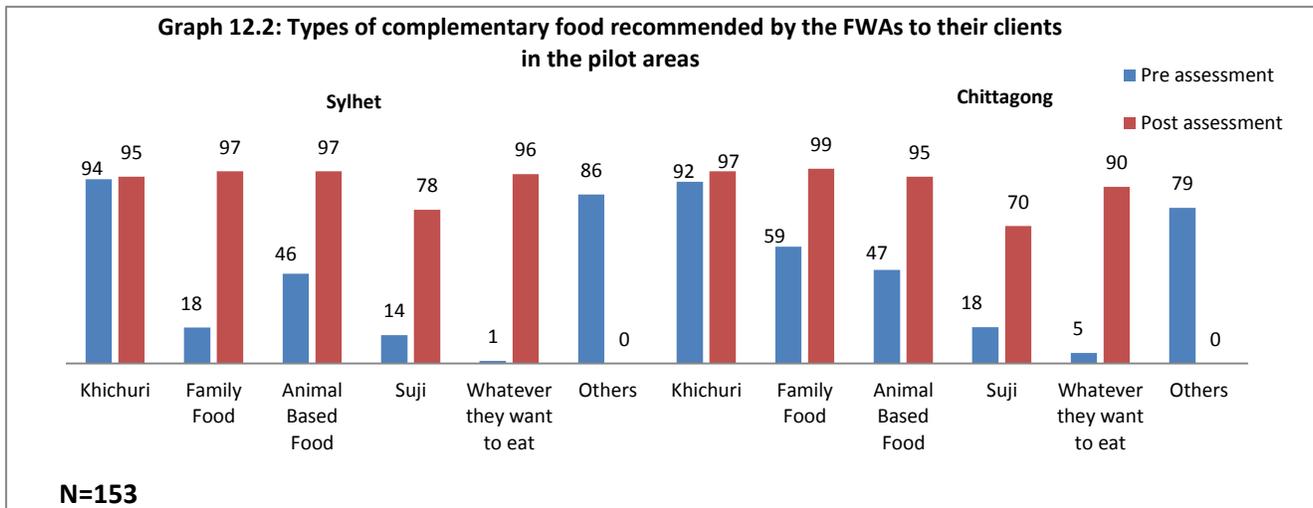
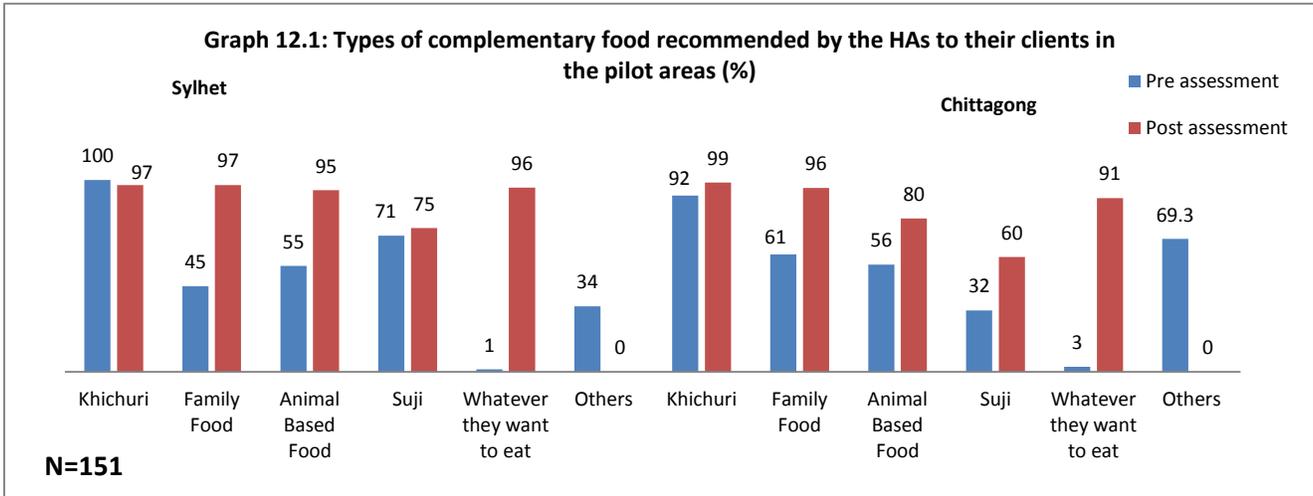
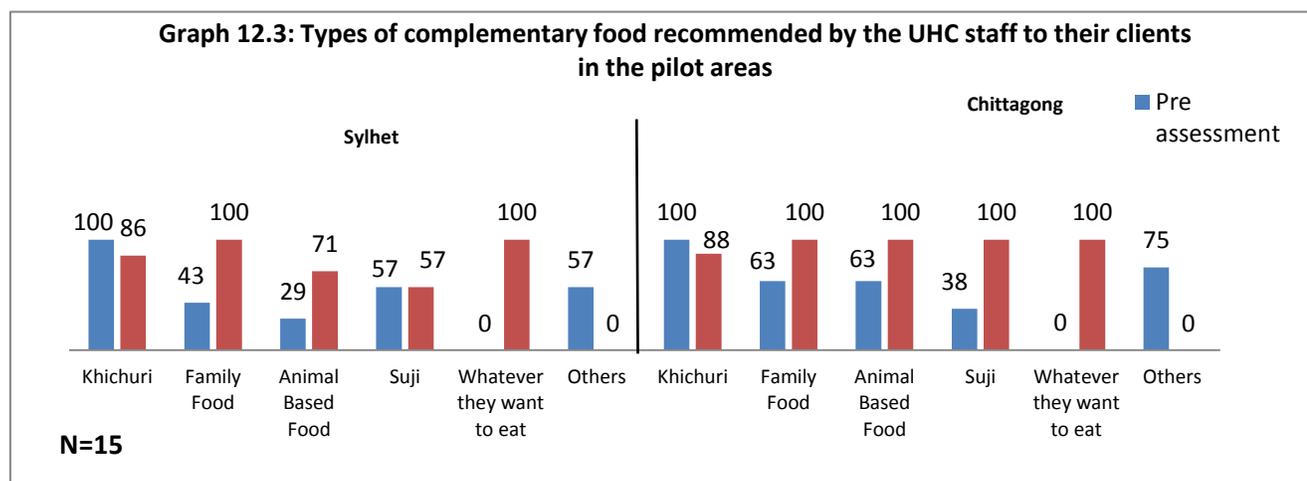


Table 26b: Types of complementary food recommended by the UHC and Surjer Hashi staff to their clients in the pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	
Khichuri	100	100	86	100	100	100	88	100	100	100	87	100	97
Family food	43	100	100	100	63	100	100	100	53	100	100	100	88
Animal Based food	29	52	71	55	63	44	100	44	46	48	86	50	58
Suji	57	0	57	0	38	0	100	0	48	0	79	0	32
Whatever they want to eat	0	0	100	0	0	0	100	0	0	0	100	0	25
Others	57	0	0	0	75	0	0	0	66	0	0	0	17



The pre-assessment data showed that, 100% of UHC staff recommended khichuri as a complementary food to their clients. They recommended some other foods also like family food (53%), animal-based food (46%), and suji (48%). A large number of UHC staff (66%) used to recommend varieties of foods that were not categorized in the study. After the intervention, recommendation of family food, animal-based food and suji increased significantly to 100%, 86% and 79% respectively while khichuri was recommended by 87% of UHC staff. No food items other than these were recommended by the UHC staff in the pilot areas after the intervention.

Table 27a: Consistency of complementary food recommended by the HAs and FWAs to their clients in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Liquid	92	94	100	100	67	70	70	70	80	82	85	85	83
Semi Liquid	84	66	90	70	80	79	80	79	82	73	85	75	79
Initially well mashed gradually in small pieces	8	7	79	75	24	33	30	53	16	20	55	64	39

During the pre-assessment, most of the HAs (82%) reported to recommend semi-liquid food items as complementary food while only 16% recommended initially well mashed and gradually in small pieces complementary foods. After the project, the post-assessment data showed that the percentage of HAs recommending complementary foods of well mashed and small pieces increased gradually to 80%.

Most of the FWAs (82%) in the pre-assessment reported to recommend liquid food items as complementary food while only 20% recommended initially well mashed and gradually in small pieces complementary foods. After the project, the post-assessment data showed that percentage of FWAs recommending complementary foods of well mashed and small pieces increased gradually to 64%.

Table 27b: Consistency of complementary food recommended by the UHC and Surjer Hashi staff to their clients in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Liquid	100	0	100	0	88	0	100	0	94	0	100	0	49
Semi Liquid	86	22	90	22	63	60	66	60	75	41	78	41	59
Initially well mashed gradually in small pieces	14	89	14	89	25	40	25	40	20	65	20	65	43

During the pre-test, most of the UHC staff (94%) reported to recommend liquid food items as complementary food while only 20% recommended initially well mashed and gradually in small pieces complementary foods. Semi-liquid foods were recommended by 75% of UHC staff. After the project, the post-assessment data showed that 100% of UHC staff recommended liquid foods while 20% recommended well mashed and gradually in small pieces complementary foods. In the pre-assessment, most of the Surjer Hashi (65%) reported to recommend initially well mashed and gradually in small pieces complementary foods, while 41% recommended semi-liquid foods.

Table 28a: Knowledge of the HAs and FWAs on number of times a mother of 6-24 months should give food to her child in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
2 times	7	7	62	71	7	4	35	42	7	6	49	57	30
3 times	97	95	100	100	96	96	100	100	97	96	100	100	98
4 times	70	47	70	50	48	48	1	1	59	48	36	26	42
5 times	11	8	11	8	8	15	8	15	10	12	10	12	11

97% of the HAs in the pilot areas were found to believe during pre-assessment that, a mother of 6-24 months should give food to her child three times a day while 59% perceived that mother should feed 4 times a day. During the post-assessment, the knowledge of the HAs was rechecked and found that, 100% have a perception of feeding child 3 times in a day. 49% believed that the child should be fed twice a day. 96% FWAs of the pilot areas were found to believe during pre-assessment that, a mother of 6-24 months should give food to her child three times a day while 48% of FWAs perceived that mother should feed her child 4 times a day. During the post-assessment, the knowledge of the FWAs was rechecked and found that, 100% believed that the child should be fed three times a day and 57% have a perception of feeding the child twice in a day.

Table 28b: Knowledge of the UHC and Surjer Hashi staff on number of times a mother of 6-24 months should give food to her child in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
2 times	0	0	57	0	57	0	57	0	29	0	57	0	22
3 times	100	90	42.9	100	100	67	100	67	100	79	72	84	84
4 times	43	43	43	43	25	56	25	60	34	50	34	52	43
5 times	14	14	14	14	0	11	0	11	7	13	7	13	10

100% of UHC staff in the pilot areas were found to believe during pre-assessment that, a mother of a 6-24 months old child should give food to her child three times a day while 34% of UHC staff perceived that a mother should feed 4 times a day. During the post-assessment, the knowledge of the UHC staff was rechecked and found that, 29% perceived feeding a child twice in a day. 79% of Surjer Hashi staff in the pilot areas were found to believe during pre-assessment that, a mother of a 6-24 months old child should give food to her child three times a day while 50% of Surjer Hashi staff perceived that a mother should feed 4 times a day. 13% thought that children should feed 5 times in a day. In the post-assessment, most of the UHC staff (72%) and Surjer Hashi staff (84%) reported that children should get food three times in a day.

Table 29a: Recommendations made by the HAs and FWAs to a mother who complains that her child doesn't want to eat in pilot areas

	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Not to force feed the child	95	95	96	95	81	80	96	88	88	88	96	92	91
Encourage the child	36	43	100	100	40	33	100	100	38	38	100	100	69
Wait until child is ready to eat	63	26	83	87	8	72	87	92	36	49	85	90	65
Should not try to feed when the child is sleepy or tired	12	5	88	87	3	0	95	93	8	3	92	90	48
Other	55	38	0	0	61	50	0	0	58	44	0	0	26

When a mother complained that her child is not taking food, 88% HAs in the pre-assessment used to recommend the mothers not to feed the child forcefully. 36 % used to suggest mothers to wait till the child is ready to eat and 38% recommended mothers to encourage their child by talking or praising. During the post-assessment 100% of HAs reported to encourage their child by talking or praising while 92% reported to suggest mothers not to try to feed when the child is sleepy or tired. 85% of HAs after intervention recommend the mothers to wait till the child is ready to eat.

When a mother complained that her child is not taking food, 88% of the FWAs in the pre-assessment time used to recommend the mothers not to feed the child forcefully. 49% used to suggest mothers to wait till the child is ready to eat and 38% recommended mothers to encourage their child by talking or praising. During post-assessment 100% of FWAs reported to encourage their child by talking or praising while 90% reported to suggest mothers not to try to feed when the child is sleepy or tired. 90% of FWAs after the intervention recommend the mothers to wait until the child is ready to eat.

Table 29b: Recommendations made by the UHC staff and Surjer Hashi staff to a mother who complains that her child doesn't want to eat in pilot areas

	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Not to force feed the child	100	76	100	79	75	89	100	92	88	83	100	86	89
Encourage the child by talking to her, praising her	29	100	100	100	38	100	100	100	34	100	100	100	84
Wait till the child is ready to eat	43	0	100	0	63	0	88	0	53	0	94	0	37
Should not try to feed when the child is sleepy	14	0	86	0	0	0	100	0	7	0	93	0	25
Other	43	0	0	0	0	0	0	0	22	0	0	0	6

When a mother complained that her child was not taking food, 88% of the UHC staff in the pre-assessment used to recommend the mothers not to feed the child forcefully. 53% used to suggest mothers to wait until the child is ready to eat and 34% recommended mothers to encourage their child by talking or praising. During the post-assessment, 100% of UHC staff reported to encourage their child by talking or praising and not to force the child to take food while 93% reported to suggest mothers not to try to feed when the child is sleepy or tired. 94% of UHC staff after the intervention recommended the mothers to wait until the child is ready to eat.

83% of Surjer Hashi staff in the pre-assessment used to recommend the mothers not to feed the child forcefully. 83% of staff recommended mothers to encourage their child by talking or praising. During the post-assessment, 86% of Surjer Hashi staff reported to encourage their child by talking or praising and not force to take food.

Table 30a: Steps taken by the HAs and FWAs to convince a mother who does not have enough money to buy food for the child in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Explain nutritious food is not always expensive	91	87	100	100	84	91	100	100	88	89	100	95	93
Ask them to save money and buy nutritious food instead	45	34	86	90	35	22	73	76	40	28	80	59	52

88% HAs in the pre-assessment period reported to explain mothers who does not have enough money to buy food for her child in pilot areas that good nutritious food are not always expensive while 40% HAs asked them to save money by not buying things like chips and motivated them to buy nutritious food instead. After intervention, all the HAs (100%) started to explain to the mothers who do not have enough money to buy food for her child that good nutritious food are not always expensive and 80% HAs reported in the post-assessment that, they ask them to save money by not buying things like chips juice and buy nutritious food instead.

89% FWAs in the pre-assessment period reported to explain mothers who does not have enough money to buy food for her child in pilot areas that good nutritious food are not always expensive while 28% FWAs asked them to save money by not buying things like chips and motivated them to buy nutritious food instead. After intervention, all the FWAs (95%) started to explain to the mothers who do not have enough money to buy food for her child that good nutritious food are not always expensive and 59% FWAs reported in the post-assessment that, they ask them to save money by not buying things like chips juice and buy nutritious food instead.

Table 30b: Steps taken by the UHC and Surjer Hashi staff to convince a mother who does not have enough money to buy food for the child in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Explain nutritious food is not always expensive	100	91	100	93	100	100	100	100	100	96	100	97	98
Ask them to save money and buy nutritious food instead	14	38	86	41	13	33	75	36	14	36	81	39	43

100% of UHC and 96% Surjer Hashi staff in the pre-assessment reported to explain to mothers who do not have enough money to buy food for their child in the pilot areas that good nutritious food are not always expensive. The rate remained the same after intervention period. While only 14% of UHC staff during pre-assessment reported to ask mothers to save money by not buying things like chips and motivated them to buy nutritious food instead, the rate went higher after intervention

and the post-assessment data showed that 81% of UHC staff are now asking mothers to save money for nutritious food and motivating them not to buy processed juice or chips.

Table 31: Perception of the UHC and Surjer Hashi staff about making recommendation to the mothers to start complementary feeding for children in pilot areas

Indicators	Sylhet %				Chittagong%			
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment	
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi
After 6 months	100	100	100	100	100	100	100	100

All the UHC and Surjer Hashi Staff in pilot areas recommended mothers to start complementary feeding for children after six months.

4.4 Knowledge of MNCH

4.4.1 Early Marriage

Table 32a: Knowledge of HA and FWA on the reason behind not being married or giving birth to a child before the age of 18 years in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Legal age of marriage in Bangladesh is 18 years	93	88	69	79	93	92	85	91	93	90	88	85	89
A woman's body has a higher chance of not being ready for child bearing till then	100	92	73	97	83	90	96	95	91	91	96	96	94
Women younger than 18 have a higher chance of lacking the maturity to raise a child	62	70	72	86	71	62	88	96	66	66	91	91	79
A woman is more likely to have a low birth weight baby before then	74	39	53	73	41	40	85	75	58	39	78	74	62
Getting married earlier would impede the ability of the woman to finish her education	41	13	73	96	1	5	87	93	21	9	91	95	54
Women before the age of 18 have a higher likelihood of having an obstructed labor	65	53	66	81	56	45	92	93	60	49	89	87	71
Women before the age of 18 have a higher likelihood of suffering from maternal mortality	74	60	74	97	56	49	91	93	65	54	94	95	77
Newborn children of younger women are more likely to have physical and mental health problems, and have a higher mortality rate	37	39	69	94	53	54	73	88	45	46	82	91	66
Entire families and communities are healthier when women delay marriage and consequentially child birth	65	71	70	91	73	83	81	87	69	77	87	89	81

Knowledge among the HAs about the reasons for not getting married or having a child before 18 years of age, increased after intervention. The percentage of HAs who perceived that the legal age of marriage is 18 years decreased from 93% to 88%. Previously, 66% of HAs had the perception that women younger than 18 years have a higher chance of lacking the maturity to raise a child which went up to 91% after the intervention. Only 21% of HAs in the pilot areas had the knowledge that getting married earlier would impede the ability of the woman to finish her education. The post-assessment data revealed that, after the intervention 91% of HAs now understand the reason. The post-assessment reported that 29% more HAs had the knowledge about women giving birth before the age of 18 having a higher likelihood of obstructed labor. Previously 65% of HAs were aware about the fact that women who give birth before the age of 18 have a higher likelihood of suffering

from maternal mortality but after the intervention 94% of HAs reported to know the reason. Almost 37% more HAs reported to know that mothers who give birth under the age of 18 years have an increased chance of neonatal mortality and that the child could have physical and mental deformities.

Knowledge about the reasons for not getting married or having a child before 18 years of age, among the FWAs increased after the intervention. The percentage of FWAs who perceived that the legal age of marriage is 18 years decreased from 90% to 85%. Previously 66% of FWAs perceived that women younger than 18 years have a higher chance of lacking the maturity to raise a child which went up to 91% after the intervention. Only 9% of FWAs in the pilot areas had the knowledge that getting married earlier would impede the ability of the woman to finish her education. Post-assessment data revealed that, after intervention, 95% FWAs now understand the reason. The post-assessment reported almost 38% more FWAs to have knowledge about women before the age of 18 having a higher likelihood of obstructed labor. Previously 54% of FWAs were aware about the fact that women giving birth before the age of 18 have a higher likelihood of suffering from maternal mortality but after the intervention 95% of FWAs reported to know the reason. Almost 45% more FWAs reported to know that mothers giving birth under 18 years of age could increase the chance of neonatal mortality and child's physical and mental deformities.

Table 32b: Knowledge of the UHCs and Surjer Hashi staff on the reason behind not being married or give birth to a child before the age of 18 years in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Legal age of marriage in Bangladesh is 18 years	86	81	86	90	75	78	50	80	80	80	68	85	78
Woman's body has a higher chance of not being ready for child bearing till then	86	95	86	100	75	67	100	100	80	87	93	100	90
Women younger than 18 have a higher chance of lacking the maturity to raise a child	71	71	100	100	75	44	100	100	73	63	100	100	84
Women more likely to have a low birth weight baby before age 18 birthing	71	33	71	80	50	67	100	100	60	43	87	62	63
Getting married earlier would impede the ability of the woman to finish her education	14	5	57	10	0	33	75	100	7	13	67	12	25
Women before the age of 18 have a higher likelihood of having an obstructed labor	71	52	100	70	50	33	100	100	60	47	100	59	67
Women before the age of 18 have a higher likelihood of suffering from maternal mortality	57	29	100	30	50	56	75	100	53	37	87	34	53
Newborn of younger women are more likely to have health problems a higher mortality rate	29	43	71	50	50	33	75	100	40	40	73	45	50
Families and communities are healthier when women delay marriage and child birth	43	48	100	-	75	22	88	-	60	40	93	70	66

Knowledge about the reasons of not getting married or having a child before 18 years of age, among the UHC staff increased after the intervention. Although the percentage of UHC staff who perceived that the legal age of marriage is 18 years decreased from 80% to 67%. Previously, 73% of UHC staff had the perception that woman younger than 18 years have a higher chance of lacking the maturity

to raise a child which went up to 100% after the intervention. Only 7% of UHC staff in the pilot areas had knowledge that getting married earlier would impede the ability of the woman to finish her education. Post-assessment data revealed that, after the intervention, 67% of UHC staff now understand the reason. The post-assessment reported that almost 40% more UHC staff have the knowledge about women under 18 years of age having a higher likelihood of obstructed labor. Previously 53% of UHC staff were aware about the fact that women before the age of 18 have a higher likelihood of suffering from maternal mortality, but after the intervention 87% of UHC staff reported to know the reason. Almost 33% more UHC staff reported to know that mothers giving birth under the age of 18 could increase the chance of neonatal mortality and that the child could have physical and mental deformities.

The percentage of Surjer Hashi staff who perceived that the legal age of marriage is 18 years increased from 80% to 85%. After the intervention 100% of Surjer Hashi staff reported to know that a woman's body has a higher chance of not being ready for child bearing before the legal age of marriage, and women younger than 18 have a higher chance of lacking the maturity to raise a child.

4.4.2 Understanding of Maternal Nutrition

Table 33a: Advice given by the HAs and FWAs on prevention of anemia in pilot areas

	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Advise them to 120mg of elemental iron plus 400 µg of folic acid	47	61	97	96	59	54	92	96	53	57	95	96	76
Advise women and girls to eat foods rich in iron	97	99	100	100	100	88	100	100	99	93	100	100	98
Advise women to eat Vitamin C rich foods with their meals	16	47	11	8	27	30	0	1	21	38	5	5	17

The pre-assessment revealed that 53% of HAs advised their clients to take 120mg of elemental iron plus 400µg of folic acid to prevent anemia. 98.7% recommended for women and girls to eat foods rich in iron and 21% advised their clients to eat Vitamin C rich foods with their meals. In the post-assessment, it was found that, 95% of HAs advised their clients to take 120mg of elemental iron plus 400µg of folic acid. All of the HAs (100%) at post-assessment advised women and girls to eat foods rich in iron while only 5% of HAs in the pilot areas recommended women to take Vitamin C rich meals.

The pre-assessment revealed that 57% of FWAs advised their clients to take 120mg of elemental iron plus 400µg of folic acid to prevent anemia. 93% recommended for women and girls to eat foods rich in iron and 38.2% advised their clients to eat Vitamin C rich foods with their meals. In the post-assessment it was found that, 96% of FWAs advised their clients to take 120mg of elemental iron plus 400µg of folic acid. All of the FWAs (100%) at post-assessment advised women and girls

to eat foods rich in iron while only 5% of FWAs in the pilot areas recommended women to take Vitamin C rich meals.

Table 33b: Advice given by the UHC and Surjer Hashi staff on prevention of anemia in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Advise them to 120mg of elemental iron plus 400µg of folic acid	57	62	100	70	38	56	100	60	47	60	100	65	136
Advise women and girls to eat foods rich in iron	100	95	100	100	100	89	100	90	100	93	100	95	194
Advise women to eat Vitamin C rich foods with their meals	14	48	0	50	38	22	13	30	27	40	7	40	57

The pre-assessment revealed that, 47% of UHC staff advised their clients 120mg of elemental iron plus 400µg of folic acid to prevent anemia. 100% recommended women and girls to eat foods rich in iron and 27% advised their clients to eat Vitamin C rich foods with their meals. In the post-assessment it was found that, All of the UHC staff (100%) at post-assessment advised women and girls to take 120mg of elemental iron plus 400µg of folic acid and foods rich in iron while only 6.7% UHC of staff in pilot areas recommended women to take Vitamin-C rich meals.

Table 34a: Foods recommended by the HAs and FWAs for optimum nutrition of a pregnant woman in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Meat	100	97	97	100	93	97	97	99	97	97	97	99	98
Fish	96	91	100	100	79	88	99	99	87	90	99	99	94
Nuts	93	95	72	73	80	95	41	47	87	95	57	60	75
Green leafy vegetables	13	7	100	100	8	13	100	100	11	10	100	100	55
Fruits	96	94	100	99	83	92	97	99	89	93	99	99	95
Milk	97	79	99	99	79	72	97	97	88	76	98	98	90
Lentils and pulses	72	61	97	100	55	68	96	99	64	65	97	99	81

The pre-assessment revealed that, the majority of the HAs (97%) recommended their clients to eat meat while leafy green vegetables were recommended by only 11% of HAs. Fish, nuts, fruit and milk were recommended by over 80% of HAs while 64% reported to advise lentils and pulses to their clients. In comparison, after the project, the post-assessment revealed that, almost all the HAs started to recommend leafy green vegetables while 97% recommended meat. Except nuts (57%), all the other aforementioned items were found to be recommended by over 90% HAs. After the project, the post-assessment revealed that almost all of the HAs started to recommend leafy green vegetables, meat, fish, fruit and pulses.

The pre-assessment revealed that, the majority of the FWAs (97%) recommended their clients to eat meat while leafy green vegetables were recommended by only 10% of FWAs. Over 90% of FWAs advised their clients to eat nuts and fruit while lentils and pulses were recommended by 65% of FWAs. In comparison, after the project, the post-assessment revealed that, almost all of the HAs

started to recommend leafy green vegetables while 99% recommended meat. Except nuts (60%), all the other aforementioned items were found to be recommended by over 90% of FWAs.

Table 34b: Foods recommended by the UHC and Surjer Hashi staff for optimum nutrition of a pregnant woman in pilot areas

Indicators	Sylhet				Chittagong				Total				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	
Meat	100	100	100	100	100	100	100	100	100	100	100	100	100
Fish	86	91	100	100	88	100	100	100	87	93	100	100	95
Nuts	86	76	86	90	75	33	63	50	80	63	73	70	72
Green leafy vegetables	0	19	100	30	25	22	100	30	13	20	100	30	41
Fruits	100	71	100	100	8	78	100	80	93	73	100	90	89
Milk	86	71	57	90	88	100	100	100	87	80	80	95	86
Lentils and pulses	71	24	100	80	50	33	100	50	60	27	100	65	63

During the pre-assessment it was revealed that, 100% of UHC staff recommended their clients to eat meat while leafy green vegetables were recommended by only 13%. Fish, nuts, fruit and milk were recommended by over 80% of UHC staff while 60% reported to advise lentils and pulses to their clients. In comparison, after the project, the post-assessment revealed that, almost all the HAs started to recommend leafy green vegetables, meat, fish, fruit and pulses. 100% of the Surjer Hashi staff recommended their clients to eat meat while leafy green vegetables were recommended by only 20%. Over 90% of Surjer Hashi advised their clients to eat fish.

4.4.3 ANC Visits

Table 35a: Knowledge of HAs and FWAs about the topics that should get covered in an ANC visit for pregnant women in pilot areas

Indicators	Sylhet				Chittagong				Total				Total
	%				%				%				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA		
Self-care at home	91	57	96	100	45	45	95	93	68	51	95	97	78
Nutrition	88	82	100	97	81	72	99	100	85	77	99	99	90
Safer sex	13	18	93	97	35	26	87	90	24	22	90	94	58
Appropriate rest	90	73	78	81	64	62	76	88	77	67	77	84	76
Planning for breastfeeding	42	17	93	91	16	15	88	88	29	16	91	90	56
Post-natal family planning	42	12	25	21	20	16	31	34	31	14	28	28	25
Healthy lifestyle	57	20	33	33	36	34	40	42	44	27	36	37	36
Planning for transport and emergencies	57	35	95	97	36	50	92	96	46	43	93	97	70
Advice on danger signs during pregnancy	93	62	97	100	79	90	96	93	86	76	97	97	89
Planning for where and with whom delivery will take place	28	20	58	48	31	23	47	45	29	21	52	46	37
Information on childbirth	37	14	30	30	12	18	36	47	25	16	34	39	29
Information on health of newborn	49	31	65	75	32	42	43	55	40	37	54	65	49
Planning for blood donation in case of emergency	41	21	33	34	13	28	39	40	27	24	36	37	31
Monitoring progress and assessment of maternal and fetal well being	28	22	82	87	4	8	76	72	16	15	79	80	48

The table depicts that in the pre-assessment over 80% of HAs perceived that nutrition and danger signs during pregnancy should be covered during ANC visits which went up to over 90% after the intervention. Topics like safer sex and planning of breastfeeding were suggested by some 24% and 29% of HAs during the initial assessment while after the intervention; these two topics were suggested by almost 90%. 44% of HAs in the pre-assessment reported to perceive that a healthy lifestyle should be among the topics discussed during ANC visits which was suggested by 36% of HAs in the post-assessment. 16% of HAs perceived to cover monitoring progress and assessment of

maternal and fetal wellbeing during ANC visits while this perception significantly went up after the intervention and the post-assessment data found that 79% HAS think so.

In the pre-assessment, over 75% of FWAs perceived that nutrition and danger signs during pregnancy should be covered during ANC visits, which went up to over 90% after the intervention. Topics like safer sex and planning of breastfeeding were suggested by some 22% and 16 % of FWAs during the initial assessment while after the intervention, these two topics were suggested by 94% and 90% of FWAs. 27% of FWAs in the pre-assessment reported to perceive that healthy lifestyle should be among the topics discussed during ANC visits which was suggested by 37% of FWAs in the post-assessment. 15% of FWAs perceived to cover monitoring progress and assessment of maternal and fetal wellbeing during ANC visits while this perception significantly went up after the intervention and the post-assessment data found that 80% of FWAs think so.

Table 35b: Knowledge of UHC and Surjer Hashi staff about the topics that should get covered in an ANC visit for pregnant women in pilot areas

Indicator	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	
Self-care at home	86	24	100	24	38	33	100	50	60	27	100	37	56
Nutrition	71	100	100	100	63	100	100	100	67	100	100	100	92
Safer sex	14	00	71	00	38	00	88	00	27	00	80	00	27
Appropriate rest	86	81	86	100	50	56	88	70	67	73	87	85	78
Planning for breastfeeding	57	00	100	00	50	33	88	50	53	10	93	25	45
Post-natal family planning	43	10	43	10	25	22	63	30	33	13	53	20	30
Healthy lifestyle	43	00	43	00	63	00	50	50	53	00	47	25	31
Planning for transport and emergencies	57	43	100	50	50	44	100	100	53	43	100	75	68
Advice on danger signs during pregnancy	100	38	100	38	88	67	100	100	93	47	100	69	77
Planning for where and with whom delivery will take place	43	19	71	19	25	33	63	50	33	23	67	35	40
Information on childbirth	14	00	3	10	0	00	25	10	7	00	33	10	13
Information on health of newborn	100	10	43	10	50	33	50	50	73	17	47	30	42
Planning for blood donation in case of emergency	29	14	14	14	13	00	25	10	20	10	20	12	16
Monitoring progress and assessment of maternal and fetal	29	9	57	9	0	11	75	50	13	33	67	30	36

Indicator	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	
well being													

The following table depicts that in the pre-assessment, 67% and 93% of UHC staff respectively perceived that nutrition and danger signs during pregnancy should be covered during ANC visits which goes up to 100% after the intervention. Topics like safer sex and planning of breastfeeding were suggested by some 27% and 53 % of UHC staff during the initial assessment while after the intervention, these two topics were suggested by 80% and 93% respectively. 53% of UHC staff in the pre-assessment reported to perceive that a healthy lifestyle should be among the topics discussed during ANC visits which was suggested by 47% of UHC staff in the post-assessment. 13% of UHC staff perceived to cover monitoring progress and assessment of maternal and fetal wellbeing during ANC visits while this perception significantly went up after the intervention and post-assessment data found that 67% of UHC staff think so.

Table 36a: Knowledge of HAs and FWAs about strategies to be taken by engaging the in-laws, husband and family members to plan for, to have knowledge of, and support decisions for proper maternal and newborn care in pilot area

Indicator	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
They should know danger signs during pregnancy and childbirth	97	97	99	99	99	100	97	100	98	96	98	99	98
They should know danger signs regarding newborn complications	99	99	99	99	99	99	97	99	99	98	98	99	99
They should plan and prepare to allocate resources to pay for skilled care	66	88	100	97	45	97	100	97	56	71	100	97	81
They should plan and prepare to allocate resources to pay for transportation	68	83	96	100	63	95	95	95	66	63	95	97	80
They should plan and prepare to allocate resources to receive blood donations	65	57	91	91	24	88	72	88	44	43	82	89	64
They should support the mother's need for good nutrition	70	78	80	90	55	79	63	79	62	66	72	84	71

Indicator	Sylhet				Chittagong				Total				
	%				%				%				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA		
They should understand the importance of the mother resting a lot and not straining herself by working too much	51	56	96	99	67	96	93	96	59	61	95	97	78
They should understand the importance of timely ANC and PNC visits	51	43	96	95	67	86	89	86	59	46	93	90	72
Other	19.7	23	00	00	8	00	00	00	14	15	00	00	7

Almost all of the HAs (around 98%) had the understanding that in-laws, husband and family members of the pregnant mother should know danger signs during pregnancy and childbirth and newborn complications as well. Despite that, the pre-assessment data depict that there was a significant knowledge gap among the HAs about the role of the in-laws, husbands and family members of the pregnant mother.

The post-assessment data revealed that 100% of HAs of the pilot areas understand now that the family members of the pregnant mother should plan and prepare to allocate resources to pay for skilled care while over 80% perceived that the family members should have plan to allocate resource to receive blood donations and over 90% HAs reported to know the importance of the understanding of family members about the importance of mother resting a lot and not straining herself by working too much and her timely ANC and PNC visit.

Over 96% of FWAs had the understanding that the in-laws, husband and family members of the pregnant mother should know danger signs during pregnancy and childbirth and newborn complications as well. Despite that, the pre-assessment data depicted that there was a significant knowledge gap among the FWAs about the role of the in-laws, husbands and family members of the pregnant mother.

The post-assessment data revealed that 97% of FWAs in the pilot areas understand now that the family members of the pregnant mother should plan and prepare to allocate resources to pay for skilled care while over 90% perceived that the family members should have a plan to allocate resource to receive blood donations and 97% of FWAs reported to know the importance of the mother resting a lot and not straining herself by working too much. 90% of FWAs in the post-assessment reported to think that the family members of pregnant mother should understand the importance of timely ANC and PNC visits while the percentage of FWAs with such understanding was only 46% during the pre-assessment.

Table 36b: Knowledge of UHC and Surjer Hashi staff about strategies to be taken by engaging the in-laws, husband and family members to plan for, to have knowledge of, and support decisions for proper maternal and newborn care in pilot area

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Know danger signs during pregnancy and childbirth	100	100	100	100	100	100	100	100	100	100	100	100	100
Know danger signs regarding newborn complications	100	86	100	100	100	78	100	90	100	83	100	95	95
Plan and prepare to allocate resources to pay for skilled care	88	33	88	50	25	44	88	60	53	37	87	55	58
Plan and prepare to allocate resources to pay for transportation	43	91	71	100	89	89	100	100	47	90	87	100	81
Plan and prepare to allocate resources to receive blood donations	71	19	57	50	25	20	100	50	47	20	80	50	49
Support the mother's need for good nutrition	57	10	71	50	38	11	100	50	47	10	87	50	49
Understand the importance of the mother resting and not working too much	14	38	100	50	63	22	100	50	40	33	100	50	56
Understand the importance of timely ANC and PNC visits	0	52	100	100	25	33	100	50	13	47	100	75	59
Other	28.6	00	00	00	00	00	00	00	13.3	00	00	00	3

All of the UHC staff (100%) were found to have the understanding that in-laws, husbands and family members of the pregnant mother should know danger signs during pregnancy and childbirth and newborn complications as well. Despite that, the pre-assessment data depicts that there was a significant knowledge gap among the UHC staff about the role of the in-laws, husband and family members of the pregnant mother.

The post-assessment data revealed that 87% of UHC staff in the pilot areas understand now that the family members of the pregnant mother should plan and prepare to allocate resources to pay for skilled care while over 80% perceived that the family members should have a plan to allocate resource to receive blood donations and 100% of UHC staff reported to know the importance of the mother resting a lot and not straining herself by working too much, and her timely ANC and PNC visit.

All the Surjer Hashi staff (100%) were found to have the understanding that the in-laws, husband and family members of the pregnant mother should know danger signs during pregnancy and 83% of staff considered the issue of childbirth and newborn complications. Despite that, the pre-assessment data depicted that there was a significant knowledge gap among the UHC staff about the role of the in-laws, husband and family members of the pregnant mother. Only 10% of staff perceived that the in-laws, husband and family members of the pregnant woman should support the mother's need for good nutrition. Regarding resource allocation, while 90% of Surjer Hashi staff had knowledge that the family members of the pregnant mother should have resource allocation for transportation, only 20% were found to think the same for blood donation. 47% of Surjer Hashi staff reported that the members of the pregnant mother's family should understand the importance of timely ANC and PNC visits.

In the pre-assessment, 100% of Surjer Hashi staff perceived that nutrition and 47% danger signs during pregnancy should be covered during ANC visits. Topics like appropriate resting and planning of breastfeeding were suggested by some 73% and 10% of Surjer Hashi staff during the initial assessment. 33% of Surjer Hashi staff perceived to cover monitoring progress and assessment of maternal and fetal wellbeing during ANC visits.

4.4.4 Skilled Birth and Post Natal Care

Table 37a: Knowledge of HAs and FWAs about the components of a skilled birth in pilot area

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Need for a clean and sterile environment for childbirth	99	92	99	99	89	96	89	99	94	94	94	97	95
Need for clean and sterile instruments for childbirth	96	94	100	96	87	78	87	96	92	86	94	91	91
Mother and skilled birth attendant have thoroughly washed their hands with soap	74	65	59	55	49	42	49	75	62	54	54	55	56
Cutting the birth cord within 3 minutes with a sterile instrument	42	40	96	97	49	30	49	93	46	35	73	66	55
Drying newborn with a clean cloth and placing on mother's bare breast	29	14	90	95	8	5	8	88	19	10	49	53	33
Cover both mother and newborn under blanket or katha	4	3	71	74	5	3	5	66	5	3	38	39	21
Initiate immediate breast feeding	65	71	91	95	73	84	73	80	69	78	82	87	79

The table above represents the picture of knowledge of the HAs about the components of a skilled birth in the pilot area. At the initial phase of the project most of the respondents, around 94%, reported that a clean and sterile environment is needed for childbirth and 91% said clean and sterile instruments are important for childbirth, while 62% gave their opinion on the mother and birth attendant washing their hands thoroughly. Another 69% said that initiation of breastfeeding just after birth is the main component of skilled birth.

On the other hand, after the intervention this picture changed. Around 99% said the need for a clean and sterile environment for childbirth, 95% said clean and sterile instruments, 96% said that cutting the birth cord within 3 minutes with a sterile instrument whereas 85% of respondents reported that drying the newborn with a clean cloth and placing on the mother's bare breast is a very important method of skilled birth. Another 72% of respondents said to cover both mother and newborn under a blanket or katha and 89% gave importance to initiate immediate breastfeeding.

This table also depicts the true situation of knowledge of the FWAs about the components of a skilled birth in the pilot areas. Most of the respondents mentioned clean and sterile environment, clean and sterile instruments, initiate immediate breastfeeding, are the main components of a safe and skilled child birth before the intervention and those rate were 94%, 86 and 78% respectively. Almost half of the respondents said that consciousness of the mother and birth attendant to wash their hands with soap has much significance for a skilled birth.

At the endline assessment, most of the respondents talked about a clean and sterile environment (99%), clean and sterile instruments for childbirth (96%), cutting the birth cord within 3 minutes with a sterile instrument (95%) and drying the newborn with a clean cloth and placing it on the

mother's bare breast (92%). About 88% of respondents also mentioned initiation of breastfeeding just after birth.

Table 37b: Knowledge of UHC and Surjer Hashi staff about the components of a skilled birth in pilot area

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Need for a clean and sterile environment for childbirth	100	95	100	98	88	78	100	81	94	87	100	90	93
Need for clean and sterile instruments for childbirth	100	100	100	100	63	100	100	100	82	100	100	100	96
Mother and skilled birth attendant have thoroughly washed their hands with soap	57	48	57	50	50	56	63	59	54	52	60	55	55
Cutting the birth cord within 3 minutes with a sterile instrument	29	52	100	54	63	44	100	47	46	48	100	51	61
Drying newborn with a clean cloth and placing on mother's bare breast	14	19	100	53	13	0	100	0	14	10	100	27	38
Cover both mother and newborn under blanket or katha	0	14	43	51	0	0	38	0	0	7	41	26	19
Initiate immediate breast feeding	71	43	86	46	100	44	100	47	86	45	93	47	68

When the study team asked the facility-based respondents about their knowledge on the components of skilled birth in the pilot areas before intervention, most of the respondents mentioned a clean and sterile environment (93%), clean and sterile instruments (80%), and initiate immediate breastfeeding (87%).

However, after the intervention all of the respondents mentioned sterile environment, clean and sterile instruments as well as cutting the birth cord within 3 minutes with a sterile instrument and drying the newborn with a clean cloth and placing it on the mother's bare breast is the best procedure of a safe and skilled birth. Another 93% also mentioned immediate breastfeeding as a component of skilled birth.

In the pre-assessment among Surjer Hashi staff, the respondents mostly mentioned a sterile environment (90%), clean and sterile instruments (100%), hand washing of the mother and birth attendant with soap (50%) and cutting the birth cord within 3 minutes with a sterile instrument (57%) as the important components of a skilled birth.

Table 38a: Knowledge of HAs and FWAs about the five critical danger signs of pregnancy in pilot area

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Vaginal bleeding before delivery	99	90	99	99	100	96	96	100	100	93	98	100	98
Excessive bleeding during or immediately after childbirth	95	62	99	99	55	67	97	95	75	65	98	97	84
Convulsions	93	90	99	100	85	88	99	99	89	89	99	100	94

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
High fever	87	75	96	96	65	82	95	96	76	79	96	96	87
Failure of labor to begin more than 6 hours after water breaks	57	60	90	94	77	59	79	87	67	60	85	91	76
Other	7	22	0	0	11	15	0	0	9	19	0	0	7

Knowledge about the five critical danger signs of pregnancy among the HAs of the pilot areas were evaluated during the pre and post-assessment and significant improvement was shown after the intervention. Vaginal bleeding before delivery was identified in both assessments by over 97% of the HAs. Knowledge of excessive bleeding during or immediately after childbirth was reported by only 75% of HAs in Chittagong which improved to 98% during the post-assessment. Knowledge on convulsions and high fever were reported by some 89% and 76.2% respectively during the initial assessment. After the intervention, over 95% reported to have knowledge on these two danger signs of pregnancy. Knowledge on failure of labor to begin more than 6 hours after water breaks was reported by 67% of HAs during the pre-assessment and after the intervention was received, 84% of HAs reported to have knowledge on this issue.

Knowledge about the five critical danger signs of pregnancy among the FWAs of the pilot areas were evaluated during pre and post-assessment and significant improvement was shown after the intervention. Vaginal bleeding before delivery was identified in both assessments by over 90% of FWAs. Knowledge of excessive bleeding during or immediately after childbirth was reported by only 65% of FWAs in pilot areas which improved to 97% during post-assessment. Knowledge on convulsions and high fever were reported by some 89% and 78.4% respectively during the initial assessment. After the intervention, over 96% reported to have knowledge on these two danger signs of pregnancy. Knowledge on failure of labor to begin more than 6 hours after water breaks was reported by 60% of FWAs during pre-assessment and after the intervention received, 90% FWAs reported to have knowledge on this issue.

Table 38b: Knowledge of the UHC and Surjer Hashi staff about the five critical danger signs of pregnancy in pilot areas

	Sylhet				Chittagong				Total				Total
	%				%				%				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	
Vaginal bleeding before delivery	100	71	100	73	100	56	100	59	100	64	100	66	83
Excessive bleeding during or immediately after childbirth	57	100	86	100	63	100	100	100	60	100	93	100	88
Convulsions	100	71	100	74	100	56	100	59	100	64	100	67	83

	Sylhet				Chittagong				Total				Total
	%				%				%				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI
High fever	71	38	86	41	75	22	100	25	73	30	93	33	57
Failure of labor to begin more than 6 hours after water breaks	57	71	100	75	63	56	100	58	60	64	100	67	73
Other	14	0	0	0	13	0	0	0	14	0	0	0	4
Vaginal bleeding before delivery	0	0	0	0	0	0	0	0	0	0	0	0	0

Knowledge about the five critical danger signs of pregnancy among the UHC staff in the pilot areas were evaluated during the pre and post-assessments and significant improvement was shown after the intervention. Vaginal bleeding before delivery was identified in both assessments by 100% of the UHC staff. Knowledge of excessive bleeding during or immediately after childbirth was reported by only 60% of UHC staff which improved to 93% during the post-assessment. Knowledge on convulsions was reported at 100% among the staff. High fever was reported by 73% during the initial assessment. After the intervention, over 93% reported to have knowledge on this danger sign of pregnancy. Knowledge on failure of labor to begin more than 6 hours after water breaks was reported by 60% of UHC staff during pre-assessment, and after the intervention was received, 100% of UHC staff reported to have knowledge on this issue.

Knowledge about the five critical danger signs of pregnancy among the Surjer Hashi staff of the pilot areas were evaluated during the pre and post-assessments and significant improvement was shown after the intervention. Vaginal bleeding before delivery and knowledge of excessive bleeding during or immediately after childbirth was identified by 100% of Surjer Hashi staff. Knowledge on convulsions was reported by 67% of staff. High fever was reported by 33% during the initial assessment. Knowledge on failure of labor to begin more than 6 hours after water breaks was reported by 67% of Surjer Hashi staff.

Table 39a: Knowledge of the field worker about the timeframe of a HAs to visit a newborn and his/her mother to check for danger signs hours/days after birth in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
1 day after birth	63	60	88	74	59	68	91	87	61	64	90	81	74
2 days after birth	20	21	4	14	24	20	4	8	22	21	11	11	16
3 days after birth	15	18	8	12	8	12	5	5	12	15	9	9	11
Other	13	9	0	0	19	8	0	0	16	9	0	0	6

While 61% of FWs reported during the pre-assessment that the HAs should visit a newborn and the mother after 1 day of birth, 22% of FWs perceived that the visit should be after 2 days of birth. There were also 11% of respondents who reported the required visiting time should be after 3 days of birth. 16% of FWs stated some other time frames. In comparison to these, the post-assessment data showed remarkable improvement of FWs knowledge about the time frame of HAs to visit mother and her newborn child. 89% of FWs reported that the HAs should visit within 1 day of birth to check for any complications.

While 64% of FWs reported during the pre-assessment that, the FWAs should visit a newborn and the mother after 1 day of birth, 20% of FWs perceived that the visit should be after 2 days of birth. There were also 15% of respondents who reported the required visiting time should be after 3 days of birth. 9% of FWs stated some other time frames. In comparison to these, the post-assessment data showed remarkable improvement of FWs knowledge about the time frame of FWAs to visit a mother and her newborn child. 80% of field workers reported that the FWAs should visit within 1 day of birth to check for any complications.

Table 39b: Knowledge of the UHC and Surjer Hashi staff about the timeframe to visit a newborn and his/her mother to check for danger signs hours/days after birth in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
1 day after birth	43	71	71	73	75	78	25	80	59	75	48	77	65
2 days after birth	43	0	29	0	25	0	25	0	34	0	27	0	15
3 days after birth	14	29	0	31	0	22	50	25	7	26	25	28	22
Other	13	9	0	0	19	8	0	0	16	9	0	0	6

While 60% of FWs reported during the pre-assessment that, the UHC staff should visit a newborn and the mother after 1 day of birth, 33% of FWs perceived that the visit should be after 2 days of birth. There were also 7% of respondents who reported the required visiting time should be after 3 days of birth. In comparison to these, the post-assessment data shows that 47% of FWs reported that UHC staff should visit within 1 day of birth to check for any complications. There are still 27% of FWs left in the study who perceived that the UHC staff should visit the newborn child and mother within 2-3 days.

While 73% of FWs reported during the pre-assessment that, the Surjer Hashi staff should visit a newborn and the mother after 1 day of birth, 26% respondents reported the required visiting time should be after 3 days of birth.

Table 40a: Knowledge of the field workers about the five critical danger signs of newborn in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Birth asphyxia	87	74	91	91	48	46	91	90	68	60	91	91	78
Low birth weight baby	86	55	86	86	27	26	82	83	57	41	84	85	67

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Sepsis	66	57	98	97	64	60	92	92	65	59	95	95	79
Acute respiratory infections	43	65	90	90	55	70	90	90	49	68	90	90	74
Other	4	20	4	20	3	5	3	5	4	13	4	13	9

Among the study population (66 in Sylhet and 36 in Chittagong) in the pre-assessment, birth asphyxia was identified by 68% of HAs, low birth weight by 56%, sepsis by 65% and acute respiratory infections by 49% of HAs. During the post-assessment the percentage of HAs increased to report the five danger signs. Above 90% of HAs reported birth asphyxia, sepsis and acute respiratory infections while 84% of HAs reported low birth weight as danger signs of new born. Among the FWAs, birth asphyxia was identified by 60%, low birth weight by 41%, sepsis by 60% and acute respiratory infections by 67% of FWAs. During the post-assessment the percentage of FWAs increased to report the five danger signs. Above 90% of FWAs reported birth asphyxia, sepsis and acute respiratory infections while 84% of FWAs reported low birth weight as danger signs of newborns.

Table 40b: Knowledge of UHC and Surjer Hashi staff about the five critical danger signs of newborn in pilot areas

	Sylhet				Chittagong				Total				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	
Vaginal bleeding before delivery	100	71	100	73	100	56	100	59	100	64	100	66	83
Excessive bleeding during or immediately after childbirth	57	100	86	100	63	100	100	100	60	100	93	100	88
Convulsions	100	71	100	74	100	56	100	59	100	64	100	67	83
High fever	71	38	86	41	75	22	100	25	73	30	93	33	57
Failure of labor to begin more than 6 hours after water breaks	57	71	100	75	63	56	100	58	60	64	100	67	73
Other	14	0	0	0	13	0	0	0	14	0	0	0	4
Vaginal bleeding before delivery	0	0	0	0	0	0	0	0	0	0	0	0	0

Among the study population (3 in Sylhet and 25 in Chittagong) of pre-assessment, birth asphyxia was identified by 33% of UHC staff, low birth weight by 73%, sepsis by 40% and acute respiratory infections by 67% of UHC staff. During the post-assessment the percentage of UHC staff increased to report the five danger signs. 87% of UHC staff reported birth asphyxia and low birth weight while 100% of UHC staff identified sepsis while 80% of UHC staff reported acute respiratory infections as danger signs of new born. Among the study population (16 in Sylhet and 7 in Chittagong) of pre-assessment, birth asphyxia was identified by 77% of Surjer Hashi staff, low birth weight by 87%, sepsis by 27% and acute respiratory infections by 77% of Surjer Hashi staff.

Table 41a: Approaches taken by the HAs and FWAs to counsel the mothers for preventing childhood diarrhea in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Advice to wash hands with soap before and after eating and after using the toilet	75	74	99	97	53	47	93	91	64	61	96	94	79
Advice to take ORS tablets and zinc supplements	88	40	100	100	80	74	100	100	84	57	100	100	85
Advice to drink fresh water for preventing child from diarrhea	40	17	55	48	35	50	61	74	37	33	58	61	47
Other	3	9	0	0	16	13	0	0	9	11	0	0	5

All of the HAs (100%) of the pilot areas after intervention reported to counsel the mothers for taking ORS and Zinc supplements for their children during diarrhea. Washing hands before and after eating and after defecation counseled by 96% HAs while 58% HAs advised their clients to drink fresh water. Percentage of FWAs counseling on preventative measures of childhood diarrhea increased during post-assessment. All FWAs (100%) of the pilot areas after intervention reported to counsel the mothers for taking ORS and Zinc supplements for their children during diarrhea. Washing hands before and after eating and after defecation counseled by 94% FWAs while 61% FWAs advised their clients to drink fresh water.

Table 41b: Approaches taken by the UHC and Surjer Hashi staff to counsel the mothers for preventing childhood diarrhea in pilot areas

	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	

	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	UHC	SUJER HASHI	
Advice to wash hands with soap before and after eating and after using the toilet	86	62	100	76	13	67	100	85	47	63	100	81	73
Advice to take ORS tablets and zinc supplements	71	62	100	80	100	67	100	85	87	63	100	83	83
Advice to drink fresh water for preventing child from diarrhea	43	10	71	56	25	0	38	50	33	7	53	53	37
Other	14	29	0	0	25	0	75	0	20	0	0	0	5

The percentage of UHC staff counseling on preventative measures of childhood diarrhea increased during the post-assessment. All the UHC staff (100%) of the pilot areas after the intervention reported to counsel the mothers on taking ORS and Zinc supplements for their children during diarrhea and advised washing hands before and after eating and after defecation, while 53% of UHC staff advised their clients to drink fresh water.

4.5 Integrated messaging, IPCC and Information Seeking

Table 42a: Topics discussed by the HAs and FWAs with the clients in last field visit in pilot areas

	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
MNCH	78	31	82	90	56	32	72	74	67	32	77	82	65
FP	51	82	54	64	45	72	87	76	48	77	71	70	67
Nutrition	33	16	79	84	11	8	52	72	22	12	66	78	45
Other	100	9	0	0	100	16	0	0	100	13	0	0	28

The pre-assessment data showed that on their last visit all of the HAs talked about different issues while only 22% discussed nutrition and 67% discussed MNCH issues. 48% of HAs reported to discuss family planning methods. After the intervention, the percentage of HAs who discussed MNCH, FP and nutrition on their last visit increased significantly. Over 70% of HAs reported during the post-assessment that they discussed MNCH and FP issues while around 66% of HAs discussed nutrition.

The pre-assessment data showed that on their last visit 77% of FWAs discussed FP issues and only 31% discussed MNCH issues. 12% of FWAs reported to discuss nutrition. After the intervention, the percentage of FWAs who discussed MNCH, and nutrition on their last visit increased significantly. While 82% of FWAs reported to discuss MNCH and 78% discussed nutrition, the percentage of FWAs who discussed FP issues decreased by 7%.

Table 42b: Topics discussed by the UHC and Surjer Hashi staff with the clients in last field visit in pilot areas

	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
MNCH	71	38	86	40	63	67	100	69	67	53	93	55	67
FP	43	100	86	100	38	100	63	100	41	100	75	100	79
Nutrition	29	38	71	41	0	67	63	69	15	53	67	55	48
Other	100	0	0	0	100	0	0	0	100	0	0	0	25

The pre-assessment data showed that on their last visit the all the UHC Staff talked about different issues while only 15% discussed nutrition and 67% discussed MNCH issues. 40% of UHC staff reported to discuss about family planning methods. After the intervention, the percentage of UHC staff who discussed MNCH, FP and nutrition on their last visit increased significantly. Over 90% of UHC staff reported during the post-assessment that they discussed MNCH while 73% of UHC staff discussed FP issues and 67% about nutrition.

Table 43a: Approaches taken by the HAs to best understand the client’s need in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Ask open ended questions	100	97	62	78	92	93	33	41	96	95	48	60	75
Gather as much information about the client’s needs	75	84	58	65	71	68	37	40	73	76	48	53	63
Make the client feel very comfortable	65	52	40	42	67	71	52	49	66	62	46	46	55
Gain the client’s trust	63	55	63	64	59	49	73	72	61	52	68	68	62
Ask probing questions	66	73	61	57	72	61	71	70	69	67	66	64	67
Personalize information for client	29	74	42	48	64	68	52	40	47	71	47	44	52
Give the client relevant information	34	36	58	42	36	42	56	49	35	39	57	46	44
Explain in ways by which client can understand well	49	29	41	34	49	30	53	42	49	30	47	38	41
Encourage client to return	21	10	41	44.	11	12	39	49	16	11	40	47	29
Give the client an opportunity to change the topic to bring up other more urgent needs	50	48	36	27	80	79	33	50	65	64	69	39	59

Table 43a reveals approaches taken by the HAs to best understand the client’s need in pilot areas. In the pre-assessment 96% of the HAs asked open-ended questions and in the post-assessment the rate is 48% as the number of respondents decreased. Gather as much information about the client’s needs is 73% of the HAs in the pre-assessment, and in the post-assessment the percentage is 48%. Make the client feel very comfortable is 66% HAs in the pre-assessment, and 46% in the post-assessment. Gain the client’s trust is 61% HAs in pre-assessment, and in the post-assessment the rate is 68%. In the pre-assessment 69% of the HAs ask probing questions and 66% in the post-assessment, as the number of respondents decreased. 46% of HAs personalize information for clients in the pre-assessment and in the post-assessment the rate is 47%. In total 35% of HAs give the clients relevant information in the pre-assessment and in the post-assessment this rate increased to 57% as the number of respondents increased. 49% of HAs explain in ways by which client can understand well in the pre-assessment, and the rate is 47% in the post-assessment as the number of respondents decreased. 16% of HAs encourage the client to return in the pre-assessment, and the rate increased to 40% in the post-assessment. 64.9% of HAs give the client an opportunity to change the topic to bring up other more urgent needs in the pre-assessment and in the post-assessment this rate decreased to 34% as the number of respondents decreased.

In the pre-assessment, 95% of FWAs asked open-ended questions and in the post-assessment the rate is 60%. Gather as much information about the client’s needs is 73% FWAs in the pre-assessment, and in the post-assessment the percentage is 52%. Make the client feel very

comfortable is 77% FWAs in the pre-assessment, and 52% in the post-assessment. Gain the client's trust 52% FWAs in pre-assessment, and in the post-assessment the rate is 68%. In pre-assessment 67% of FWAs ask probing questions and 63% in the post-assessment. 71.2% of FWAs personalize information for clients in the pre-assessment and in the post-assessment the rate is 43.8%. In total 39% of the FWAs give the client relevant information in pre-assessment and in the post-assessment this rate was increased to 45.1% as the number of respondents increased. 29% of FWAs explain in ways by which client can understand well in the pre-assessment and the rate is 38% in the post-assessment as the number of respondents increased. 17% of FWAs encourage the client to return in the pre-assessment and the rate increased to 46% in the post-assessment. And 63% of FWAs give the client an opportunity to change the topic to bring up other more urgent needs in the pre-assessment and in the post-assessment this rate decreased to 39% as the number of respondents decreased.

Table 43b: Approaches taken by the UHC and Surjer Hashi staff to best understand the client's need in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
Ask open ended questions	100	100	29	100	100	89	25	91	100	95	27	96	80
Gather as much information about the client's needs	71	86	43	88	63	78	13	80	67	82	28	84	65
Make the client feel very comfortable	71	62	71	64	63	67	75	69	67	65	73	67	68
Gain the client's trust	71	71	57	72	38	22	88	25	55	47	73	49	56
Ask probing questions	57	100	57	100	63	78	88	81	60	89	73	91	78
Personalize information for client	29	71	71	74	38	100	25	100	34	86	48	87	64
Give the client relevant information	43	19	43	38	38	56	25	59	41	38	34	49	41
Explain in ways by which client can understand well	43	33	43	37	38	33	13	37	41	33	28	37	35
Encourage client to return	29	14	57	18	13	11	88	15	21	13	73	17	31
Give the client an opportunity to change the topic to bring up other more urgent needs	43	48	29	50	88	44	63	48	66	46	46	49	52

In the pre-assessment, 100% of UHC staff asked open-ended questions and in the post-assessment the rate is 27% as the number of respondents decreased. Gather as much information about the client's needs is 67% UHC staff in the pre-assessment, and in the post-assessment the percentage is

27%, as total number of UHC staff decreased. Make the client feel very comfortable is 67% of UHC staff in the pre-assessment and in the post-assessment the rate was increased to 73% as the number of respondent increased. Gain the client's trust is 53% of UHC staff in the pre-assessment and in the post-assessment the rate is 73%. In the pre-assessment, 60% of UHC staff ask probing questions and 73% in the post- assessment and the rate was increased. 33% of UHC staff personalize information for clients in the pre-assessment and in the post-assessment the rate increased to 47%. In total 40% of UHC staff give the client relevant information in the pre-assessment and in the post-assessment this rate decreased to 33% as the number of respondents decreased. 40% of UHC staff explain in ways by which client can understand well in the pre-assessment and the rate is 27% in the post-assessment as the number of respondents decreased. 20% of UHC staff encourage the client to return in the pre-assessment and the rate increased to 73% in the post-assessment. 67% of UHC staff give the client an opportunity to change the topic to bring up other more urgent needs in pre assessment and in the post-assessment this rate decreased to 47% as the number of respondents decreased.

97% of Surjer Hashi staff ask open-ended questions. 83.3% of Surjer Hashi staff gather as much information about the client's needs. 63% of Surjer Hashi staff make the clients feel very comfortable. 57% of Surjer Hashi staff gain the client's trust. 93% of Surjer Hashi staff ask probing questions. 80% of Surjer Hashi staff personalize information for the client. Give the client relevant information is 30% of Surjer Hashi staff. 33% of Surjer Hashi staff explain in ways by which the client can understand well. 13% of Surjer Hashi staff encourage the client to return. And 47% of Surjer Hashi staff give the client an opportunity to change the topic to bring up other more urgent needs.

Table 44a: Perception of HAs and FWAs on the use of relevant materials and resources to improve the quality of counseling in pilot areas

Indicators	Sylhet %				Chittagong %				Total %				
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Total
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
Ensures better understanding of information which might be otherwise difficult to understand	80	23	95	88	23	25	76	84	52	24	86	86	62
Allows counselor to make the same point in multiple ways for clients to better understand and recall	86	100	99	96	99	97	95	92	93	99	97	94	96
Helps the counselor remember specific details which might be easy to forget	88	90	88	94	93	96	83	80	91	93	86	87	89

In the pilot areas, HAs believe that the relevant materials and resources improve the quality of counseling in many ways. In the pre-assessment, 52% of HAs believed the materials and resources ensure a better understanding of information which might be otherwise difficult to understand and after the intervention, the percentage increased to more than 80%. In the pre-assessment from Chittagong only 17% of HAs participated but in the post-assessment it was seen that 57% of HAs participated from the district. More than 90% of HAs said these resources allow counselors to make

different types of answers to give the clients a better idea so that they can recall things, in the post-assessment the percentage remained higher for this option and the rate was 97%. More than 90% of HAs had an idea before the intervention that the resources help the counselor to remember specific details which might be easy to forget, but the percentage declined slowly to 85% after providing the intervention.

FWAs were interviewed in the pre and post-assessment about the usage of relevant materials and resources to improve the quality of counseling, in the pre-assessment only 24% said these materials and resources ensure a better understanding of information which is otherwise difficult to understand and in the post-assessment more than 85% talked about this benefit. However, in the pre-assessment only 18% of FWAs from Sylhet and 25% from Chittagong participated whereas in the post-assessment 68% of FWAs from Sylhet and 64% of FWAs from Chittagong were interviewed. More than 98% of FWAs said these materials allow counselors to make the same point in multiple ways for clients to understand things better but after the intervention the percentage slightly declined to 94.1%. In the post-assessment 87% of FWAs said the materials and resources help the counselors to remember the specific details of any information which is tough to recall, compared to 93% in the initial assessment.

Table 44b: Perception of UHC and Surjer Hashi staff on the use of relevant materials and resources to improve the quality of counseling in pilot areas

Indicator	Sylhet %				Chittagong %				Total %				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	UHC	SURJER HASHI	
Ensures better understanding of information which might be otherwise difficult to understand	71	29	100	32	13	89	88	92	42	31	94	62	57
Allows counselor to make the same point in multiple ways for clients to better understand and recall	86	100	100	100	100	78	100	81	93	100	100	91	96
Helps the counselor remember specific details which might be easy to forget	86	86	100	89	100	56	100	62	93	88	100	76	89

In the pilot areas, UHC staff were asked about the benefits of using relevant materials and resources to improve the quality of counseling. Only 40% of UHC staff said in the pre-assessment that it ensures better understanding of information which might be otherwise difficult to understand whereas in the post-assessment more than 90% answered that. Both in pre and post-assessment more than 90% of UHC staff said these materials and resources allow the counselor to make the same answers in different ways for clients so that they can understand them easily and remember them. On the other hand, in the post-assessment 100% of UHC staff said they believed the resources and materials help the counselor to remember specific details which is tough to remember.

In the pre-assessment, the Surjer Hashi staff were asked about the benefits of using relevant materials and resources to improve the quality of counseling. More than 45% said the resources ensure better understanding of information which might be difficult to understand. 93% of Surjer Hashi staff said these resources and materials allow the counselor to make the same point in different ways for better understanding and it also helps the counselor to remember tough things that are easy to forget.

Table 45a: Measures taken by the HAs and FWAs on getting specific information in pilot areas

Indicators	Sylhet %				Chittagong %				Total%				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	HA	FWA	
You ask your colleagues	100	100	78	83	100	100	48	62	100	100	63	73	84
You ask your supervisor	100	100	100	100	100	100	100	100	100	100	100	100	100
Go to community Clinic	0	0	3	3	0	0	12	4	0	0	8	4	3
You got to Union Sub Centre	25	10	22	21	15	11	29	29	20	11	26	25	21
You go to Upazila Health Complex	71	29	40	34	27	33	39	53	49	31	40	44	41
You use internet	9	4	71	74	3	7	63	47	6	6	67	61	35
Others	13	35	0	0	9	4	0	0	11	20	0	0	8

In the pilot areas, the HAs were asked what measures they usually take to get specific information. Different types of answers came out in the pre and post-assessment. In the pre-assessment, 100% said they ask their colleagues, but after the intervention the percentage declined to 63%. In the post-assessment the rate of participants were low from Chittagong district. Asking the supervisor is the most common way of getting information among HAs, 100% of HAs answered in this way before and after the intervention. In the post-assessment, only 7% said they go to the community clinic to get some specific information. Before the intervention, almost 20% answered that they go to the Union Sub Centre to get the information which rose to 25% in the post-assessment. Almost 50% of HAs said in the initial assessment that they went to the Upazila Health Complex which decreased to 39% in the post-assessment. After the intervention, a tremendous change was seen in using internet to get specific information. More than 65% took the help of internet to get the specific information after the intervention, before providing the intervention it was only 6%.

The table depicts that 100% of FWAs answered in the pre-assessment that they ask their colleagues to get specific information but after the intervention, the percentage declined to 73%. 100% of FWAs answered that they ask their supervisor to know information both in pre and post-assessment. Only 10% were used to going to the Union Sub Centre before the intervention, but as more FWAs were interviewed in the post-assessment, 25% said they go to the Union Sub Centre. After the intervention, 43% said they went to the Upazila Health Complex whereas the percentage was 31% in the pre-assessment. After the intervention, more than 60% of FWAs used internet to get specific information.

Table 45b: Measures taken by the UHC and Surjer Hashi staff on getting specific information in pilot areas

Indicators	Sylhet %				Chittagong %				Total%				Total
	Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		Pre-Assessment		Post-Assessment		
	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	UHC	Surjer Hashi	
You ask your colleagues	62	71	100	74	100	56	100	61	81	64	100	68	78
You ask your supervisor	100	95	100	98	100	89	100	92	100	92	100	95	97
Go to community Clinic	4	10	0	15	0	11	0	16	2	11	0	16	7
You go to Union Sub Centre	29	10	43	17	38	0	13	0	34	5	28	9	19
You go to Upazila Health Complex	53	10	43	13	50	0	38	0	52	5	41	7	26
You use internet	47	0	57	0	0	0	63	0	24	0	60	0	21
Others	0	57	0	59	13	44	0	48	7	51	0	54	28

The table above shows that 100% of UHC staff said they seek help to get specific information from their colleagues and supervisors both in the pre and post-assessment. To get specific information, only 20% of UHC staff said they went to the Union Sub Centre before the intervention but after the intervention the percentage rose to 27%. More than 50% of UHC staff said they went to the Upazila Health Complex before the intervention but the percentage decreased to only 40% in the post-assessment. 60% of UHC staff said that they use internet as a medium of getting information after the intervention.

In the pre-assessment, the Surjer Hashi staff were asked about their measures on getting some specific information in the pilot areas. 67% said they ask their colleagues, more than 90% ask their supervisor, 10% go to the community clinic, 7% go to the Union Sub Centre and Upazila Health Complex. Surprisingly, more than 50% said they use other ways to get the specific information. After the intervention, no assessment was done with the Surjer Hashi staff.