Assessment of Knowledge, Attitudes and Practices of the Pregnant Women and Health Workers on the Use of IFA in Satkhira and Narsingdi Districts, Bangladesh

Submitted to:

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Bangladesh

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January 15, 2014

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EXECUTIVE SUMMARY

Anaemia attributes a major threat to maternal and child survival, contributes to spontaneous abortion, premature birth, low birth weight, impaired immunity, poor learning ability and decreased work productivity. Despite the implementation of Iron and Folic Acid (IFA) supplementation program since 1988 for pregnant women with the health and family planning wings of the Ministry of Health and family planning Welfare (MoHFW) – there has been no desirable change in the anaemic levels among the pregnant women. Micronutrient Initiative Bangladesh is supporting the Government of Bangladesh (GoB) to demonstrate an effective program model for increasing the coverage and particularly the utilization of IFA supplements among pregnant women. The program is being piloted in two districts – Satkhira and Narsingdi. At present, MI intends to conduct a rapid assessment with the key objectives (i) to measure the coverage and utilization IFA supplements during pregnancy, (ii) key KAP indicators among pregnant women and health care providers, and (iii) the availability of IFA supplies at health facilities. A baseline survey of the program was undertaken prior to initiation of program activities in early 2012 in the two selected program districts and two control districts.

Methodology: Primarily quantitative technique has been used to assess the coverage and utilization of IFA supplements during pregnancy in two project districts – Satkhira and Narsingdi. Some 100 women who have delivered a child within 6 months preceding the survey and 80 health care providers have been selected from each of 2 project districts. Thus a total of 200 recently delivered mothers and 160 health service workers (domiciliary and supervisory) were interviewed.

Age of the Recently Delivered Mothers: The mean age of the recently delivered mothers at baseline and at midline is almost identical, reportedly 23.5 and 23.6 years respectively.

Antenatal Care (ANC): Compare to 80.2 percent at baseline, percentage of recently delivered mothers received ANC from any providers at midline is 92.8 percent. Overall percentage of four ANC from any providers is raised to 39.5 percent at midline as compared to 29.8 percent at baseline. Compared to 14.8 percent at baseline, percentage of recently delivered mothers received at least one home based ante-natal care from the health worker is 50.3 percent at midline.

Knowledge about Anaemia: Currently 78.0 percent of the recently delivered mothers at midline have heard about anaemia as compared to 73.2 percent at baseline.

Manifestation of Anaemia: The most pronounced manifestation of anaemia was/is general weakness, amounting to 79.9 percent at baseline and 88.5 percent at midline. Other notable manifestations were/are vertigo (52.2% at baseline and 44.2% at midline) and fatigue (22.2 at baseline and 23.1% at midline).

Prevention of Anaemia: The most commonly known measure for prevention of anaemia was/is consumption of iron rich food at baseline (89.4%) and midline (73.1%), followed by intake of IFA supplement as stated by 32.4% percent of mothers at baseline and 67.3% at midline.

Benefits of IFA Supplement: A 48.8 percent of the recently delivered mothers at baseline and 56.5 percent at midline reported that IFA supplement can prevent the onset of anaemia. Additionally, 52.5 percent of the mothers at midline have reported that IFA supplement is likely to prevent the deficiency of iron during faetal growth.

Dose and Duration of IFA Supplementation: Overall 54.8 percent of the recently delivered mothers at baseline and 64.0 percent at midline knows the recommended dose of IFA supplementation of taking one tablet per day. However, recommended days of IFA tablet to be continued 270 days is known to 9.0 percent at midline as compared to 1.3 percent was at baseline.

Coverage of IFA Supplementation: Reportedly, 68.2 percent of the recently delivered mothers received IFA tablet during last pregnancy at baseline, which is raised to 83.0 percent at midline. IFA tablets were/are usually supplied in blister pack both in baseline (93.4%) and midline (76.5%). The number of IFA tablets supplied per trip of visit at midline is 30. The major source of IFA supplement at midline is community clinic (97.0%), followed by pharmacy (61.4%). In contrast, major source of IFA supplement at baseline was FWC (26.1%), followed by MCWC (14.0%). Concerning consumption, 97.1 recently of the mothers at baseline and 99.4 percent at midline did/do not continuing IFA supplement for recommended days of 270 days.

Counseling and Use of IEC/BCC Materials: Compared to 3.3 percent at baseline, more than two-fifth (44.0%) recently delivered mothers at midline received counseling on IFA supplement with the help of IEC/BCC materials during ANC. Commonly used IEC/BCC material at midline is Festoon (83.0%) followed by Brushier (40.9%).

Postnatal Care (PNC) and IFA supplementation: It is evident that 32.5 percent recently delivered mothers received home based ANC at midline. Corresponding baseline data is not available. At midline, home-based ANC is primarily provided by FWA (40.0%) as well as NGO worker (44.6) and to some extent by the HA (20.0%). More than half of the service providers (53.8%) advise the mothers to take IFA supplementation during postnatal period.

Current practice of IFA supplementation and Future Intention of IFA Consumption: Overall, 18.0 percent of the recently delivered mothers have reported that they are using IFA supplement at present. The reason for consumption of IFA supplement after birth of baby is essentially due to advice given by the service providers (77.8%) during ANC and PNC. In contrast, three-fifth of mothers (59.8%) have reported that nobody told them to consume IFA supplement after delivery as well as one-fourth (25.0%) of them thought that IFA is not required after delivery. However, 86.0 percent of the recently delivered mothers at midline likely to consume IFA supplement during their next pregnancy and 85.0 percent after delivery if conceive again. Those who denied, is mostly (63.3%) due to their misconception that no more IFA supplement is required after delivery, followed by intolerance to IFA ingestion (26.7%).

Background Characteristics of the Health Workers: The mean age of the health workers at baseline and midline was/is 41.7 years and 35.8 years respectively indicates that health workers at midline are relatively younger than their counterparts at baseline but the difference is not statistically significant. Furthermore, compare to 59.6 percent at baseline, 65.9 percent of them has education up to higher secondary level at midline. Primarily, 66.6 percent of the health workers (FWA and HA) are domiciliary field workers, and 33.3 percent (CHCP) are stationed at community clinic to provide health care. The average duration of work of the health workers in the surveyed areas is 3.8 years at midline as compared to 13.8 years at baseline.

Catchment Population and Client Served by the Health Workers: Compared to 3,404 households and 17,125 populations at baseline, a health worker is likely to address 1558 households and 6856 populations at midline. Similarly, against 1,720 women of reproductive

age, 1,221 under-5 children and 1,992 pregnant women at baseline, on average of 3,853 women of reproductive age, 808 under-5 children and 44 pregnant women are being served by a health worker in her working areas.

Training of the Health Workers: Percentage of FWA and HA received IFA training at midline are 32.5 percent and 35.1 percent respectively. Which were 34.6 and 25.0 percent for FWA and HA of HA at baseline. Moreover, 32.5 percent of the CHCP receive training at midline. On the other hand, refresher training has been received by 36.8 percent of FWAs, 33.8 percent of HAs and 29.4 percent of CHCPs at midline. At baseline refresher training was received by 22.6 percent of FWA and 13.1 percent of HA.

Knowledge of the Health Workers on Anaemia: Compared to 73.3 percent at baseline, all the surveyed health workers (100.0%) at midline are aware about the term anaemia. The most common manifestation known to the health workers both at baseline and midline was/is general weakness, reportedly higher at baseline than at midline (97.6% vs. 87.5%). Other major manifestations at midline are pallor of the body (65.8%), dizziness (40.0%), easy fatigue (36.7%), poor physical work capacity (12.5%), and vomiting tendency (10.0%). At baseline, other widely reported manifestations were easy fatigue (58.3%), dizziness (29.8%) and vomiting tendency (21.4%). The most frequently reported consequence of anaemia at midline are increased risk of maternal death (75.8%), followed by increase risk of low birth weight baby (68.3%) and increased severity of iron deficiency of mother (36.7%). Consumption of IFA supplement (95.2% at baseline and 100% at midline) as well as iron containing foods (95.2% at baseline and 88.5% at midline) are the two most common preventive measures known to them. According to 96.7 percent health workers, reported dose of IFA supplementation for the pregnant woman is 'one tablet once a day'. Nevertheless, it was reported as 'two tablets daily' by nearly two-third (61.9%) of the health workers at baseline. A total 270 IFA tablets are to be consumed during pregnancy and 90 tablets after delivery is known to 81.7 percent and 89.2 percent mothers respectively. In contrast to 4th month by 75.0 percent of the health workers at baseline, most of them (85.8%) in midline have reported that IFA supplementation is to be started from 1st month of pregnancy.

Major benefits of IFA supplementation known to the health workers at midline are – prevention of risk of low birth weight baby (75.0%), maternal anaemia (72.5%) and deficiency of iron at full term of pregnancy (39.2%). On the other hand, supply of energy (90.8%) and cognitivity development (36.8%) were the major benefits reported by the health workers at baseline. The most widely reported side effects of IFA supplementation both at baseline and midline were/are constipation (77.4% and 60.8%) and black coloured stool (79.8% and 87.5%). Additionally, gastric upset has been considered as another common side effect by 61.7 percent of the health workers at midline.

Service Delivery of the Health Workers: Reportedly, all the health workers (FWA, HA and CHCP) at midline are involved in distributing IFA tablet to the pregnant women during pregnancy and after delivery. Added to this, almost all of them reported that they re-supply IFA tablets to the pregnant women during delivery and after delivery in their next trip/visit. Irrespective of during pregnancy or after birth, health workers provide 30 IFA tablets to the pregnant women/mothers at each trip/visit of ANC/PNA.

Monitoring and Supervision of IFA Supplementation: By and large, 68.3 percent of the health workers at midline reported that they conduct home visit. During home visit, majority of health workers (74.4%) use to check the utilization of IFA supplementation, provide counseling in favour of utilization of IFA supplementation and ANC check-up. Monitoring of IFA utilization usually done at health facility during ANC visits (61.7%), field during home visits (58.3%), EPI camps (22.6%) and at the places of mother's meeting (15.7%).

Counseling and Use of IEC/BCC materials: Reportedly, almost all (99.2%) the health workers at midline counsel the pregnant women about anaemia as well as its consequences. The common places of counseling are health facility during ANC (66.9%), residence of the pregnant women during home visits (60.2%), EPI camps (40.7%) and to some extent at the meeting place of the mothers (22.0%). Some 79.8 percent the health workers use IEC/BCC materials at the time of counseling. The most widely used IEC material during counseling is festoon (78.9%), followed by brochure 46.3%), flipchart (15.8%) and leaflet (13.7%).

IFA Supply and Stock Position: Regarding stock of IFA supplement with each of the health worker, fourth-fifth (81.7%) of them has reported to maintain an adequate stock of IFA for the next month. Nevertheless, according to 86.3 percent of the health workers, there was a stock-out IFA supplement in their health facility during the previous month.

Recording and Reporting: According to 94.2 percent of the health workers, reporting form and register are always available in the health facility. Average number of pregnant women enrolled for registration for the first time in last month was 5. Average number of pregnant women provided with IFA supplement during the last month from Community Clinic (CC) was 15. Monthly report is submitted by 90.3 percent health worker in time or within first 7 days of the next month.

Knowledge, Perception and Activities of Supervisors: Supervisors are well aware (100 percent) of anaemia and they have clear idea about the symptom and consequences of anaemia. Field visit for supervision and monitoring is not applicable for FWVs and SACMO in that case study found that 15 out of 17 i.e., 88 percent supervisor visit their field 2-3 times in every week.

76.5 percent supervisors usually compare the number of monthly home visits conducted with the number planed by the health workers and 82.4 percent mentioned that they use checklist during their monitoring visit. 94.1 percent do home visit in purpose of monitoring.

Only 37.5 percent monitor the IFA supplementation distribution status when they visit field for the supervision and monitoring the health workers and program. This is an area need to be developed.

Supervisors collect monthly report from the health workers and after compilation and checking they submit compiled report at Upazila level. Almost all the supervisor mentioned that they received report from health workers timely and in completely, and give feedback of monitoring visit to their staff and discuss the key observations in the monthly coordination meeting in the Upazila level.

Recommendations

The findings of midline assessment suggest the recommendations as follows:

- There is a clear need to improve the awareness of pregnant mothers on anaemia including its prevention.
- Coverage of IFA supplementation is to be enhanced through adequate (at least four) utilization of antenatal services which is often late in pregnancy and infrequent.
- Compliance to IFA supplementation is to be strengthened and should be closely monitored at field level as majority of pregnant women do not continue the IFA supplementation for recommended 270 days during pregnancy and 90 days after delivery.
- Counselling regarding IFA supplementation is to be reinforced.
- Regular training/refreshment of the health workers on IFA supplementation should be arranged annually.

CHAPTER-1
Introduction and Contextual Aspects

1.1 Background of the Study

Anaemia is a widespread and long-standing public health problem in Bangladesh, affecting particularly the health and lives of the children, adolescents and women. Anaemia should be considered to exist when haemoglobin is below normal level for a particular age, sex and condition. It attributes a major threat to maternal and child survival, contributes to spontaneous abortion, premature birth, low birth weight[1], impaired immunity, poor learning ability and decreased work productivity. Its injurious effects on physical health and mental productivity affect quality of life, and translate into significant economic losses for individuals and for the country. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality is due to iron-deficiency anaemia[2].

According to Bangladesh Demographic and Health survey, 2011 – 42.4 percent of women aged 15-49 are anaemic, where, 35.6 percent are mildly, 6.5 percent are moderately and 0.2 percent are severely anaemic. Anaemia affects 49.6 percent of pregnant women, 48.6 percent of the adolescent girls, 51.0 percent of the children under five years of age and 40.0 percent of non-pregnant women. Despite the implementation of Iron and Folic Acid (IFA) supplementation program since 1988 for pregnant women with the health and family planning wings of the Ministry of Health and family planning Welfare (MoHFW) – there has been no desirable change in the anaemic levels among the pregnant women.

Keeping all these in mind, the Micronutrient Initiative Bangladesh is supporting the Government of Bangladesh (GoB) to demonstrate an effective program model for increasing the coverage and particularly the utilization of IFA supplements among pregnant women. The program is being piloted in two districts – Satkhira and Narsingdi.

The overall goal of the project is to develop an improved delivery model that will result in increased coverage and utilization of IFA supplements among the pregnant women in the pilot districts. The strategy focuses on: a) consultative meetings with GoB and other stakeholders for increasing attention on the program b) planning meetings at the selected districts and associated sub-districts/upazilas c) strengthening the supply chain particularly estimation of requirements d) building capacity of the field functionaries to administer, monitor, track and counsel e) developing and strengthening Behavior Change Communication (BCC) particularly the Inter Personnel Communication (IPC) component, and f) strengthening the monitoring systems to monitor receipt and utilization and g) program evaluation.

A baseline survey of the program was undertaken prior to initiation of program activities in early 2012 in the two selected program districts and two control districts. Monitoring data are also available on the coverage and utilization of IFA supplements among pregnant women and KAP of service providers and pregnant women with regard to IFA supplements along with the stock situation of IFA at the health facilities.

[1] Low birth weight is defined as a birth weight < 2500g
[2] Bangladesh Demographic and Health survey (BDHS), 2011

Against the backdrop of the IFA supplementation program, MI intends to conduct a rapid assessment with the key objectives to measure the coverage and utilization IFA supplements during pregnancy, key KAP indicators among pregnant women and health care providers, and the availability of IFA supplies at health facilities.

1.2 Objectives of the Study

The objectives of the study are to measure:

1. The coverage and utilization IFA supplements during pregnancy;
2. Key KAP indicators among pregnant women and health care providers;
3. The availability of IFA supplies at health facilities.

1.3 Outcome of the Survey

1. Rapid midline assessment methodology, applied to recently delivered mothers and field level health workers and supervisors.
2. A document that represents the result of midline assessment

1.4 Context of Surveyed Districts Participating in the Assessment

Strengthening the Iron and Folic Acid supplementation (IFA) program to reduce Iron deficiency anaemia among the pregnant women in Bangladesh was carried out in Satkhira and Narsingdi districts.

Satkhira is located on the south-west extremity of Bangladesh with an area of 3858.33 sq km. It is surrounded by Jessore district on the north, the Bay of Bengal on the south, Khulna district on the east and Pashchim Bango (west-Bengal) state of India on the west. There are roads and high ways transportation in this district. As a result, communication system is very easy. The total population[3] of Satkhira is 1,864,704 with male and female distribution is 955,198 and 909,506 respectively. The inhabitants are mostly Muslim (80.18%), followed by Hindu (19.34%), Buddhist (0.34%), Christian (0.01%), and others (0.12%). Among the 7 upazilas of the district, Shyamnagar is the largest (1968.24 sq km), and Debhata is the smallest (176.33 sq km). Average literacy is 45.52 percent, male 51.84 percent and female 48.16 percent. The main source of income is Agriculture (62.56%). However, most of the peoples of southern part of Satkhira depend on Pisciculture, locally called *Gher*. Other sources of income are commerce (16.23%), service (4.86%), non-agriculture labourer (4.33), transportation and communication (3.303%), industry (1.5%) and construction (1.01%). The most popular Sundarbans – the largest single block of tidal halophytic mangrove forest in the world and a World Heritage site covers a notable area of the district.

[3] Bangladesh population Census 2001, BBS

Narsingdi is a district located centrally in Bangladesh with an area of 1140.76 sq km and is 50 km north-east of Dhaka, the capital city of the country. It is bounded by Kishoreganj district on the north and north-east, Brahmanbaria district on the east and south-east, Narayanganj district on the south and south-west and Gazipur district on the west. Communication system of the district is very good due to its location on the Dhaka-Sylhet highway and is only I hour journey from Dhaka by road. Railway and waterway communication is very good as well because of two busiest rail routes of the country and lots of river go/flow through Narsingdi. The total population of Narsingdi is 1,895,984 with male and female distribution is 974,026 and 921,958 respectively. The inhabitants are primarily Muslim (93.98%), followed by Hindus (5.95%), Buddhist (0.01%), Christian (0.004%) and others (0.05%). Among the 6 upazilas of the district, Raipura is the largest (312.77sq km) and Palash is the smallest (94.43 sq km) upazila. Average literacy is 29.57 percent, male 35.03 percent and female 23.66 percent. The main source of income is Agriculture (42.73%), but does not depend solely on agriculture. The district is famous for its textile craft industry and home to many other industries. The other sources of income are commerce (17.84%), service (10.55%), industry (7.26%), transport and communication (7.91%), non-agriculture labourer (3.0%), rent and remittance (2.99%), construction (1.55%) and others (9.89%).

CHAPTER-2
Methodology and Procedures

2.1 Sampling and Study Design

Primarily quantitative technique has been used to assess the coverage and utilization of IFA supplements during pregnancy, status of key KAP indicators among the pregnant women and health care providers, and the availability of IFA supplies at health facilities in two project districts – Satkhira and Narsingdi. In line with the Terms of Reference, 100 women who have delivered a child within 6 months preceding the survey and 80 health care providers have been selected from each of 2 project districts. Thus a total of 200 recently delivered mothers and 160 health service workers were interviewed. In selection of recently delivered mothers, two stage sampling design has been followed, where in first stage, 10 villages in each district has been selected through a probability proportion to size (PPS) methodology. The villages thus selected is termed as cluster and from each cluster, 10 recently delivered women has been identified in second stage using key informant interview with the knowledgeable local residents. In selection of front line health care providers (HA, FWA and CHCP), half of them have been selected from those who are in-charge of the selected clusters and remaining half has been chosen randomly from a list of health workers supplied by Micronutrient Initiative (MI). However, all the supervisory staff (HI, AHI, FPI and FWV) has been selected randomly from a list of supervisory health workers supplied by Micronutrient Initiative.

2.2 Study Population

The survey focused on three groups of population related to consumption of IFA supplement during pregnancy. The groups includes mother with a birth of baby in the past 6 months preceding the survey. The second group includes domiciliary field workers associated with IFA distribution and counseling and the last group comprised of supervisory field workers.

2.3 Data Collection Instruments (DCIs)

Data collection instruments were prepared and provided by MI. However, necessary adjustment has been done in context to assessment of knowledge, attitude and practices of the pregnant mothers and health worker on the use of IFA in consultation with MI. All DCIs were translated into *Bangla* and pretested in a field other than survey areas. Following the pre-test, DCIs were back translated into English after required modification. Pre-tested questionnaires were then submitted to MI and finalized in consultation with them. The DCIs comprised of three distinct set of questionnaires, i.e., (i) Semi structured questionnaire for recently delivered mother, (ii) Semi structured questionnaire for front line health and family planning service providers (HA, FWA, and CHCP) and (iii) Semi structured questionnaire for the supervisory health and family planning workers (HI, AHI and FWV). The questionnaires include the following issues.

- **Questionnaire for Recently Delivered Mother:** The questionnaire comprised of characteristics of the respondent, maternal care, knowledge of the mothers on anaemia and IFA tablet, receipt and consumption of IFA tablet during pregnancy, use of IEC/ BCC material during counseling, and status about PNC including information related to postpartum IFA consumption.

- **Questionnaire for the Frontline Health Care Providers:** The questionnaire encompassed the characteristics of the service provider, information about the catchment area, receipt of professional training, knowledge and awareness regarding anaemia, type of service delivery, monitoring and supervision of IFA supplementation, counseling and use of IEC, BCC materials, IFA supply and stock situation and status of recording and reporting by the service provider.

- **Questionnaire for the Supervisory Health Workers:** The questionnaire contains information about knowledge and skill of the supervisors on anaemia and IFA supplementation, practice of monitoring and supervision, and receipt of training on anaemia and IFA supplementation.

2.4 Implementation of the Survey

The survey was implemented by Human Development Research Centre (HDRC) with technical assistance from MI. Broadly, the different stages of the survey includes – (i) finalization of the questionnaires and manual preparation, (ii) recruitment of field staff (iii) training of the field enumerators and supervisors-cum-quality controllers, (iv) sample village selection, (v) field data collection, (vi) data editing and coding, (vii) data entry and cleaning, (viii) data analysis, drafting of report and sharing with MI and (ix) finalization of report.

2.5 Field Implementation

Field implementation has two components: household selection as well as trace out the selected health workers and data collection. First stage was identification of households of recently delivered mothers with the help of key informant interviews with the local residents. On the other hand, mobile telephone as well as visiting the respective health centres was applied to track-down the respective health workers (health care provider and supervisors) for interviews.

The second stage was the data collection from the recently delivered mothers and health workers using semi structured questionnaires. There were a total of 22 field staffs for data collection. Primarily, field staffs were divided into two teams of five pairs of female field enumerators in each under the supervision a male field supervisor-cum-quality controller. One pair of enumerators was then deployed in each of the 10 clusters. Thus, 10 pairs of field enumerators were deployed in 10 sample clusters in each of the two surveyed districts for data collection of 200 recently delivered mothers and 160 health workers in all. A total of 7 days (8 November - 14 November) was allotted to complete the task in Satkhira including travel followed by 6 days (15 November - 20 November) in Narsingdi to complete the task including travel.

2.6 Quality Control

Two supervisors-cum-quality controllers were placed (one for five pairs of enumerators) to oversee the data collection of field enumerators. A standard guideline was prepared for the quality control of the field data collection and additional training was arranged for the supervisors regarding quality data collection. Besides the supervisors-cum-quality controllers, one of the core research team members was constantly present with the field teams in Satkhira to oversee the data collection there. The data collection in Narsingdi was also supervised by the supervisors-cum-quality controllers and monitored by the research team through successive field visits of a team member on alternate days from Dhaka.

2.7 Data Analysis

The primary unit of quantitative analysis in the study has been the respondents, with results summarized according to intervention districts. Data has been analysed using SPSS. Quantitative data analysis techniques included uni-variate analysis and bi-variate analysis. The measurement levels of the variables have been taken into account while analyzing the data, as special statistical techniques are available for each level.

Statistical inferential analyses namely, *Test of significance in differences* have been performed, which will give an idea about the significance in changes if any. Although it is true that any change in any indicator from baseline to midline may happen due to various reasons. But we may reasonably assume that there has been some effect of the project on different indicator. Thus we have attempted to investigate whether there have been significant change in the indicators or not. Hence we have performed some tests of significance of differences namely, Z-test for proportion. Such results are provided indicator by indictor in the text.

CHAPTER-3
Maternal Care during Pregnancy

3.1 Age of the Recently Delivered Mothers

Recently delivered mothers of the end-line survey, who delivered baby during last 6 month preceding the survey, were between the age of 15 and 40 years as compared to 15 and 40 years of their counterparts at baseline. The mean age of the recently delivered mothers at baseline and at end-line is almost identical, reportedly 23.5 and 23.6 respectively.

Table 3.1: Distribution of the recently delivered mothers by age and district

Age in years	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
15-19	20.0	16.0	22.0	24.0	21.0	20.0	1.0	0.776
20-24	36.0	38.0	44.5	36.0	40.3	37.0	3.3	0.436
25-29	29.5	29.0	24.0	29.0	26.8	29.0	2.2	0.568
30-34	10.0	13.0	7.5	9.0	8.8	11.0	2.2	0.392
35-39	3.5	2.0	2.0	2.0	2.8	2.0	0.8	0.556
40-44	1.0	2.0	-	-	0.5	1.0	0.5	0.478
45-49	-	-	-	-	-	-		
Total	100.0	100.0	100.0	100.0	100.0	100.0		
Mean Age	23.96	23.99	23.08	23.25	23.51	23.62	0.11	0.921
Maximum	41	40	39	38	41	40		
minimum	15	15	16	15	15	15		
Number of women	200	100	200	100	400	200		

3.2 Antenatal Care (ANC)

Compare to 80.2 percent at baseline, percentage of recently delivered mothers received ANC from any providers at midline is 92.8 percent. Across the districts, both at baseline and midline, ANC is more pronounced in Satkhira than so in Narsingdi. However, rate of seeking ANC by any provider is fairly higher in Narsingdi (89.0%) and Satkhira (96.0%) at midline than it was in Narsingdi (74.2%) and Satkhira (88.1%) at baseline.

Overall, there is no virtual difference among the recently delivered mothers in Narsingdi and Satkhira districts regarding timing of 1st ANC visit at baseline and midline during last pregnancy (the median month of pregnancy is 5 in each period). District-wise analysis, however, shows that median month of pregnancy at 1st ANC visit in Narsingdi is 5 at midline as compared to 4 at baseline. In Satkhira, median month of pregnancy at 1st ANC visit was 5 at both the periods.

Concerning at least 4 ANC, overall percentage of four ANC from any providers is significantly ($p<0.05$) raised to 39.5 percent at midline as compared to 29.8 percent at baseline. In general, rate of seeking ANC at least 4 times is higher in Satkhira than so in Narsingdi. With respect to difference between baseline and midline, percentage of seeking at least 4 ANCs from any provider in Narsingdi (29.0%) and Satkhira (50.0%) is distinctly higher at midline than it was in Narsingdi (23.0) and Satkhira (36.7%) at baseline.

Reportedly, public health facilities are the major source of IFA supplementation at baseline (72.7%) and midline (71.4%). Other notable sources of IFA supplementation were/are private hospitals/clinics (35.1% at baseline and 31.9% at midline) and NGO clinics (8.8% at baseline and 10.8% at midline). Nonetheless, home was the source of IFA supplementation to 16.6 percent of the recently delivered mothers at baseline and currently 33.0 percent at midline.

Home visit during pregnancy is the backbone of maternal care. Although, expectant mother is likely to attend antenatal clinic, it is suggested that she must be paid at least one home visit by the health worker to win her confidence. Compared to 14.8 percent at baseline, percentage of recently delivered mothers received at least one home based ante-natal care from the health worker is as high as 50.3 percent at midline and the difference is highly significant ($p<0.001$). Across the districts, home visit made by the health worker in Narsingdi was 21.5 percent at baseline, which is almost double (39.3%) at present (midline). In Satkhira, rate of home visit by the health worker is strikingly higher (60.4%) at midline than it was as low as 7.0% at baseline.

The study finding demonstrates that majority of the home visits at midline were performed at second trimester of pregnancy, followed by 3rd trimester. Variation across the district is shown in Table 3.2.

The most popular place of ANC at baseline as well as midline was/is public health facility, accounting to 72.7 percent and 71.4 percent respectively. Other notable places of ANC were/are home (16.6% at baseline and 33.0 at midline) and private clinic/hospital (35.1% at baseline and 31.9% at midline. Above findings indicate that home based ANC at midline is significantly higher ($p<0.001$) than at baseline.

Table 3.2: Distribution of the recently delivered mothers by Ante-natal care (ANC) by district

ANC	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
ANC care by any provider	71.5	89.0	88.9	96.0	80.2	92.5		
Median age of pregnancy at 1st ANC	4	5	5	4	5	5		
At least 4 ANC visit	23.0	29.0	36.7	50.0	29.8	39.5	9.7	0.017*
N[1]	**200**	**100**	**200**	**100**	**400**	**200**		
Received home visit during pregnancy	21.5	39.3	7.0	60.4	14.2	50.3	36.1	0.000*
Duration of pregnancy at 1st home visit								
1st trimester		34.3		24.1		28.0		
2nd trimester		71.4		74.1		73.1		
3rd trimester		42.9		55.2		50.5		
N[2]	**100**	**25**	**100**	**58**	**200**	**93**		
Place of last ANC visit								
Home	28.0	34.8	7.3	31.3	16.6	33.0	16.4	0.000*
Public	41.3	58.4	97.8	83.3	72.7	71.4	1.3	0.756
Private	43.4	47.2	28.7	17.7	35.1	31.9	3.2	0.466
NGO	14.0	10.1	4.5	11.5	8.8	10.8	2.0	0.460
Others	2.8	--	4.5	1.0	3.8	0.5	3.3	0.024*
N[3]	**143**	**89**	**178**	**96**	**321**	**185**		

*Significant at 5% level of significance

CHAPTER-4
Knowledge of the Recently Delivered Mothers About Anaemia and Coverage of IFA Supplementation

4.1 Awareness about Anaemia

Overall findings of midline survey reveal that currently 78.0 percent of the recently delivered mothers at midline have heard about anaemia as compared to 73.2 percent at baseline. District-wise analysis however, shows that although such awareness on anaemia is raised from baseline (65.0%) to midline (78.0%) in Narsingdi, the corresponding awareness is decline from 81.5 percent at baseline to 78.0 percent at midline in Satkhira.

4.2 Manifestation of Anaemia

The most pronounced manifestation of anaemia known to the recently delivered mothers was/is weakness/feeling fragile, which is significantly higher ($p<0.05$) at midline (88.5%) than it was at baseline (79.9%). Other notable manifestations known to them were/are dizziness (52.2% at baseline and 44.2% at midline), and fatigue or feeling of tiredness (22.2 at baseline and 23.1% at midline). Nonetheless, Figure 5.1 shows that pallor of the body is known to 13.3 percent of the respondent at baseline and poor physical capacity to work to 14.1 percent at midline. The manifestations like weakness, vertigo, fatigue were much more pronounced in Satkhira than so in Narsingdi at baseline. However, at midline, awareness of the recently delivered mothers regarding manifestations of anaemia in Satkhira and Narsingdi are almost similar.

4.3 Prevention of Anaemia

According to 15.0 percent of the recently delivered mothers at baseline, they did not know how to prevent anemia, which is significantly dropped down ($p<0.001$) to 5.1 percent now at midline. The most commonly known measure for prevention of anaemia at baseline (89.4%) and midline (73.1%) was/is consumption of iron rich food, followed by intake of IFA supplement, amounting 32.4 percent and 67.3 percent at baseline and midline respectively. The difference of knowledge in both the instances at baseline and midline is highly significant ($p<0.001$). At baseline, all the recently delivered mothers in Satkhira and more than half (54.6%) in Narsingdi reported that consumption of iron rich food can prevent the onset of anaemia. The corresponding figures at midline in Satkhira and Narsingdi are 79.5 percent and 66.7 percent in order. Conversely, intake of IFA supplement as well was considered as a preventive measure of anaemia by 40.8 percent recently delivered mothers in Narsingdi and 25.8 percent in Satkhira at baseline as compared to 62.8 percent in Narsingdi and 71.8 percent Satkhira at midline.

4.4 Benefits of IFA Supplement

The survey finding discloses that one-fourth of recently delivered mothers at baseline and 16.0 percent at midline did not know any benefit of IFA intake. Given the circumstance, 48.8 percent of the recently delivered mothers at baseline and 56.5 percent at midline reported that IFA supplement can prevent the onset of anaemia. Additionally, more than half (52.5%) of the recently delivered mothers at midline as compared to 8.5 percent at baseline have reported that IFA supplement is likely to prevent the deficiency of iron during faetal growth

and the difference of knowledge of the recently delivered mothers to this regard is highly significant ($p<0.001$). The corresponding proportion of recently delivered mothers at baseline was 8.5 percent. Additionally, a considerable proportion of the recently delivered mothers in Narsingdi (39.0%) and 69.0 percent in Satkhira reported that IFA supplement provide energy, which is almost none (1.0%) at midline. Apart from these, 21.3 percent recently delivered mothers at baseline and none at midline reported that IFA supplement increase appetite of the user. Taking the key benefits in to account, recently delivered mothers in the Satkhira are more aware about the benefits of IFA consumption than their counterparts in Narsingdi at both the periods.

4.5 Dose and Duration of IFA Supplementation

Ideally, the dose of Iron therapy depends on severity of anaemia, however, the "National Strategy for Anaemia Prevention and Control in Bangladesh", has recommended to take one IFA tablet once per day throughout pregnancy (9 months x 30 = 270 tablets) and three month after birth of baby (3 months x 30 = 90 tablets). It is evident from the survey finding that overall 54.8 percent of the recently delivered mothers at baseline as compared to 64.0 percent at midline knows the recommended dose of IFA supplementation of taking one tablet per day and the difference of knowledge of the recently delivered mothers to this regard is highly significant ($p<0.001$). Across the surveyed districts, although there is no knowledge difference on recommended dose of IFA supplementation in Narsingdi (64.0%) and Satkhira (64.0%) at midline, reported knowledge on recommended dose of IFA supplementation was higher in Satkhira (62.0%) than that in Narsingdi (47.5%) at baseline. Nonetheless, 16.3 percent recently delivered mothers at baseline and 15.0 percent at midline did/does not know the recommended dose of IFA supplementation.

Largely (52.0%), the recently delivered mothers at midline and 41.2 percent at baseline do/did not know about the recommended days of IFA supplementation to be continued. The recommended days of IFA tablet consumption for 270 days is known to 9.0 percent of the recently delivered mothers at midline as compared to 1.3 percent at baseline. District-wise analysis shows that current knowledge on continuation of IFA tablets for 270 days in known to 7.0 percent of recently delivered mothers in Narsingdi and 11.0 percent in Satkhira. The corresponding knowledge at baseline was 2.1 percent and 0.5 percent in Narsingdi and Satkhira respectively at baseline.

Table 4.1: Percentage distribution of recently delivered mothers by knowledge about anaemia and IFA supplement

Knowledge about anaemia and IFA supplement	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Knows about anaemia	65.0	78.0	81.5	78.0	73.2	78.0	4.8	0.242
Manifestations of anaemia								
Weakness	71.5	89.7	86.5	87.2	79.9	88.5	8.6	0.015*
Dizziness	33.1	41.0	67.5	47.4	52.2	44.2	8.0	0.094
Fatigue	14.6	20.5	28.2	25.6	22.2	23.1	0.9	0.818
Nausea/vomiting		16.7		17.9	13.3	17.3	4.0	0.238
Poor physical work capacity		7.7		20.5		14.1		
Pallor of the body	6.9		18.4	2.6	13.3	1.3	12.0	0.000*
Blurring of vission	9.2	1.3	5.5	1.3	6.8	1.3	5.5	0.005*
Swelling of body	6.9		6.7	1.3	6.8	.6	6.2	0.001*
Don't know	15.4	2.6	1.2	2.6	7.5	2.6	4.9	0.022*
Prevention of anaemia								
Intake of Iron Tablet	40.8	62.8	25.8	71.8	32.4	67.3	34.9	0.000*
Intake of Iron containing food	54.6	66.7	100.0	79.5	89.4	73.1	16.3	0.000*
Others	3.1		11.6		7.9			
Don't know	30.0	6.4	3.1	3.8	15.0	5.1	9.9	0.001*
N		**78**		**78**	**253**	**156**		
Benefit of intake of IFA								
Prevent the onset of anaemia	46.0	48.0	51.5	65.0	48.8	56.5	7.7	0.078
Prevent iron deficiency for growth of faetus	3.5	55.0	13.5	50.0	8.5	52.5	44.0	0.000*
Good health		1.0		1.0		1.0		
Feel strengths/gives energy	39.0		69.0	2.0	54.0	1.0		
Don't know	28.5	19.0	13.5	13.0	21.0	16.0		
Doses of IFA tablet per day								
1	47.5	64.0	62.0	64.0	54.8	64.0	9.2	0.033*
2	26.5	14.0	19.5	21.0	23.0	17.5	5.5	0.124
3	7.5	3.0	4.0	4.0	5.8	3.5	2.3	0.020*
Others	0.5		-		0.3			
Don't know	18.0	19.0	14.5	11.0	16.3	15.0	1.3	0.682
Recommended days of IFA supplement consumption	2.1	7.0	.5	11.0	1.3	9.0		
N	**188**	**100**	**193**	**100**	**381**	**200**		

*Significant at 5% level of significance

4.6 Coverage of IFA Supplementation

Reportedly, 68.2 percent of the recently delivered mothers received IFA tablet during last pregnancy at baseline, which is significantly ($p<0.0.5$) raised to 83.0 percent at midline i.e., 15.0 percentage points higher than the baseline. According to the recently delivered mothers at baseline and midline, IFA tablets were/are usually supplied in blister pack both. Nonetheless, around one-fifth (22.9%) of the recently delivered mothers at midline and a few (3.3%) at baseline received IFA tablets in loose/open from, wrapped in a paper. The overall percentage of women at midline received 30 IFA tablets per trip is 53.6 percent in total, which is higher in Narsingdi (56.6%) as compared to Satkhira (51.1%). However, percentage of mothers at midline (65.5%) received at least 30 tablets during their last visit is significantly higher ($p<0.001$) than mothers at baseline (38.0%) The major source of IFA supplement at midline is community clinic (97.0%); followed by pharmacy (61.4%), home (42.8%), FWC

(34.3%), UHC (19.9%), private clinic (18.7%) and Satellite/EPC centre (15.7%). At baseline, major source of IFA supplement was FWC (26.1%), followed by MCWC (14.0%), community clinic (13.6%), home (13.2%), nutrition centre (12.9%), UHC (11.0%), and NGO clinic (8.1%).

Concerning consumption of IFA supplementation for recommended 270 days during pregnancy, it appears that alike at baseline (97.1%), recently delivered mothers are largely (99.4%) not continuing IFA supplement for 270 days at midline. It indicates that instead of increasing, continuation of IFA supplement for 270 days has gone down to less than 1.0 percent at midline as compared to 2.9 percent at baseline during last pregnancy. In general, percentage of recently delivered mother who received at least one IFA tablet during last pregnancy is 83.0 percent at midline as compared to 68.2 percent at baseline and the difference is significant ($p<0.05$). The Table 4.2 shows that on average 1-90 IFA tablets has been received by 62.0 percent of the recently delivered mothers at midline, as compared to 42.8 percent at baseline. More so, 91-180 tablets are received by 16.5 percent mothers at midline as compared to 19.3 percent at baseline. A few of the mothers at baseline (4.5%) and less than that (1.5%) at midline received IFA tablets from 181 to 270 tablets. Further analysis shows that currently at midline at least 30 tablets are received by 65.5 percent of the recently delivered mothers which was 38.0 percent at midline. Again, at least 100 IFA tablets by 16.5 percent at midline against 18.5 were at baseline. On the other hand, 19.5 percent of recently delivered mothers did not consume any IFA tablet during last pregnancy as compared to 31.8 percent at baseline. Among the mothers who consumed IFA tablet during the last pregnancy, 1-90 tablets were consumed by 62.0 percent of the recently delivered mothers at midline as compared to 42.8 percent at baseline and 91-180 tablets by 16.5 percent at midline as compared to 19.3 percent at baseline. As low as, 1.5 percent mothers at midline and 4.5 percent at baseline consume 181-270 tablets during last pregnancy. This indicates that neither at midline nor at baseline, the recently delivered mothers likely to consume the recommended number of IFA Tablets during last pregnancy.

Table 4.2: Percentage distribution of recently delivered mothers by coverage of IFA supplement

Knowledge about anaemia and IFA supplement	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Not received IFA supplement	42.0	24.0	21.5	10.0	31.8	17.0	14.8	0.001*
Received at least 30 tab @ in the last visit	26.5	57.0	49.5	74.0	38.0	65.5	27.5	0.000*
Received at least 100 @ tab in the last visit	16.5	16.0	20.0	21.0	18.3	18.5	0.2	0.968
Received at least 270 tab @ in the last visit	2.0	-	-	1.0	1.0	0.5	0.5	0.575
Mode of distribution of IFA tablet								
Blister pack/strip	87.9	88.2	97.5	66.7	93.4	76.5	16.9	0.000*
Loose	6.9	10.5	.6	33.3	3.3	22.9	19.6	0.000*
Others	5.2	1.3	1.9		3.3	.6	2.7	0.066
N	**116**	**76**	**157**	**90**	**273**	**166**		
Women received 30 Tab. per trip		56.6		51.1		53.6		
N	**116**	**76**	**157**	**90**	**273**	**166**		
Source of IFA supplement								
Own Home	13.6	44.7	12.7	33.3	13.2	38.6	25.4	0.000*

Knowledge about anaemia and IFA supplement	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Other's home		3.9		4.4		4.2		
Medical College Hospital			3.2	5.6	1.8	3.0	1.2	0.412
FWC	7.0	26.3	40.1	41.1	26.1	34.3	8.2	0.067
UHC	10.4	17.1	11.5	22.2	11.0	19.9	8.9	0.010*
Satellite clinic/EPI centre	2.6	1.3	0.6	27.8	1.5	15.7	14.2	0.000*
MCWC	0.9		23.6		14.0			
Community Clinic (CC)	0.9	72.6	22.9	100.0	13.6	97.0	83.4	0.000*
NGO Clinic	13.0	1.3	4.5	8.9	8.1	5.4	2.7	0.317
Private clinic/ Hospital	2.6	23.7		14.4	1.1	18.7	17.6	0.000*
Sadar Hospital		3.9		6.7		5.4		0.000*
Pharmacy	23.5	96.1	19.7	32.2	21.3	61.4	40.1	0.000*
Unqualified Doctor			0.6		0.4			
FWA	1.7		1.9		1.8			
Nutrition Centre	29.6		0.6		12.9			
N	**115**	**76**	**157**	**90**	**272**	**166**		
Duration of IFA Tablet intake								
More than 270 days	4.3	--	1.3	1.2	2.6	0.6	2.0	0.093
270 days	0.9	--	--	--	0.4	--		
Less than 270 days	94.8	100.0	98.7	98.8	97.1	99.4	2.3	0.066
Reasons for not taking all Tablets								
Side Effects		10.0		17.0		13.5		
Forgot to take the tablets		28.0		18.0		23.0		
Lost the packet		2.0		--		1.0		
Did not like the taste		4.0		4.0		4.0		
Family/husband opposed		1.0		1.0		1.0		
Feared to take pill				1.0		.5		
delivered baby		2.0		3.0		2.5		
not taking on purpose		--		1.0		0.5		
Others (specify)		--		1.0		0.5		
NA		53.0		53.0		53.0		
Total		100.0		100.0		100.0		
N		100		100		200		
Consumption of IFA Tablet								
1-90 tablet	36.0	59.0	49.5	65.0	42.8	62.0	19.2	0.000*
91-180 tablet	13.5	15.0	25.0	18.0	19.3	16.5	2.8	0.404
181-270 tablet	6.0	1.0	3.0	2.0	4.5	1.5	3.0	0.060
More 270 tablet	2.5	--	1.0	1.0	1.8	0.5	1.3	0.197
NR	42.0	25.0	21.5	14.0	31.8	19.5	12.3	0.002*
Number of women	200	100	200	100	400	200		

*Significant at 5% level of significance

4.7 Counseling and Use of IEC/BCC Materials

It is evident that compare to merely 3.3 percent at baseline, more than two-fifth (44.0%) recently delivered mothers at midline received counseling on IFA supplement with the help of IEC/BCC materials during ANC. Across the districts, use of IEC/BCC materials reportedly higher in Satkhira (49.0% at midline and 4.5% at baseline) than in Narsingdi (39.0% at midline and 1.9% at baseline).

On the whole, the most commonly used IEC/BCC material at midline is Festoon (83.0%) followed by Brushier (40.9%). In contrast, Banner and leaflet were the common IEC/BCC materials used alternatively (50.0% each) at baseline. District-wise, although festoon and brushier are used both in Satkhira and Narsingdi at midline, nevertheless, use of banner and leaflet were reported only in Narsingdi at baseline.

Table 4.3: Percentage distribution of recently delivered mothers received counseling with the help of IEC/BCC material

Knowledge about anaemia and IFA supplement	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
IEC/BCC material shown during consultation/ counseling	1.9	39.0	4.5	49.0	3.3	44.0		
Type of IEC/BCC material used								
Festoon		89.7		77.6		83.0		
Brushier		25.6		53.1		40.9		
Other								
Banner	50.0		-		50.0			
Leaflet	50.0		-		50.0			
N	2	39	-	49	2	88		

4.8 Postnatal Care (PNC) and IFA Supplementation

Compared to 44.2 percent at baseline, 52.0 percent of the recently delivered mothers at midline received information about postnatal care (PNC) from the service providers while consulted for ANC. District-wise, such prior information about PNC during ANC was 45.7 percent in Narsingdi and 37.5 percent in Satkhira at baseline. The corresponding figures in Narsingdi and in Satkhira are 55.0 percent and 49.0 percent respectively at midline. It is further evident that 32.0 percent recently delivered mothers in Narsingdi and 33.0 percent in Satkhira received home based ANC at midline. Comparable baseline data for home based ANC is not available, however, at baseline it has been reported that 33.0 percent recently delivered mothers in Narsingdi and 40.0 percent in Satkhira received postnatal check-up after the birth of their baby. At midline, home-based ANC is primarily provided by FWA (40.0%) as well as NGO worker (44.6) and to some extent by the HA (20.0%). Role of CSBA to this matter is merely 4.6 percent. On the other hand, PNC at baseline was largely consulted by qualified MBBS doctor (61.6%) or Nurse/Midwife/Paramedic (61.0%). At the time of home visit at midline, more than half of the service providers (53.8%) advise the recently delivered mothers to take IFA supplementation during postnatal period. District-wise, it is 56.3 percent in Narsingdi and 51.5 percent in Satkhira. Generally at midline (corresponding baseline data is not available), benefit and to some extent dose of IFA supplementation is usually shared by the service provider with 94.3 percent and 40.0 percent beneficiaries respectively. Other important issue like side-effect of IFA supplementation is less likely discussed with recently delivered mothers, except 11.8 percent in Satkhira.

Table 4.4: Percentage distribution of recently delivered mothers regarding postnatal check-up during last delivery by district

Knowledge about anaemia and IFA supplement	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Received information about PNC during ANC	45.7	55.0	37.5	49.0	44.2	52.0	7.8	0.071
PNC received from any service provider	45.7	55.0	37.5	49.0	44.2	52.0	7.8	0.071
Received home based PNC from the health workers	33.0	32.0	40.0	33.0	36.5	32.5	4.0	0.332
N	**200**	**100**	**200**	**100**	**400**	**200**		
Type of service provider during PNC								
Qualified Doctor (MBBS)	65.2		58.8		61.6			
Nurse/Midwife/Paramedic	36.4	3.1	81.3		61.0	1.5	59.5	0.000*
FWV/SACMO	1.5	6.2	7.5	3.0	4.8	4.6	0.2	0.952
FWA	1.5	37.5		42.4	0.7	40.0	39.3	0.000*
HA		28.1	2.5	12.1	1.4	20.0	18.6	0.000*
TBA		6.3	4.0		2.7	3.1	0.4	0.873
Unqualified doctor	1.5	3.1		3.0	0.7	3.1	2.4	0.177
NGO worker		46.9	1.3	42.4	0.7	44.6	43.9	0.000*
CSBA	6.1	3.1	2.5	6.1	4.1	4.6	0.5	0.865
N	**66**	**32**	**80**	**33**	**146**	**65**		
Received instruction to consume IFA supplement during PNC								
Type of information received from the service provided about IFA supplementation								
N		**18**		**17**		**35**		

*Significant at 5% level of significance

4.9 Current practice of IFA Supplementation and Future Intention of IFA Consumption

In midline survey, overall, 18.0 percent of the recently delivered mothers have reported that they are using IFA supplement at present. Current use of IFA supplement by district is 35.4 percent and 36.0 percent in Narsingdi and Satkhira respectively. Those who consumed IFA tablet after the birth of baby, on an average 36 IFA tablets have been consumed by them. The reason for consumption of IFA supplement after birth of baby is essentially due to advice given by the service providers during ANC and PNC. Such advice to take IFA supplement is more pronounced in Narsingdi (94.4%) than that in Satkhira (61.1%). On the other hand, those who did not consume IFA supplement, three-fifth of them (59.8%) in general, 64.6 percent in Narsingdi and 54.9 percent in Satkhira have reported that nobody told them to consume IFA supplement after delivery. Some one-fourth (25.0%) of them thought that IFA is not required after delivery and one-tenth (11.0%) otherwise could not tolerate iron after ingestion. Intolerance to IFA supplement is relatively higher in Narsingdi (14.6%) than Satkhira (7.3%). Comparable baseline data for current use of IFA supplement is not available.

Midline survey further reveals that as high as 86.0 percent of the recently delivered mothers likely to consume IFA supplement during their next pregnancy if conceive again. By district, there is no substantial variation between the Narsingdi (85.0%) and Satkhira (87.0%) of using IFA supplement during the forthcoming pregnancy. Among the recently delivered mothers, who do not likely to use IFA supplement all the way through next pregnancy are mainly due to intolerance to IFA tablet after ingestion, and think that iron is not necessary after birth of baby. One-fifth (21.1%) of the recently delivered mothers do not like to be pregnant again so question of future use IFA supplement is not applicable to them. Apart from these, in response to a question whether the recently delivered mothers are likely to consume IFA supplement after the birth of baby if conceive again, more than four-fifth (85.0%) of the recently delivered mothers have reported to do so in their next pregnancy. District-wise, such intention of post partum use of IFA supplement is higher in Satkhira (88.0%) than so in Narsingdi (82.0%). Those who deny to do so, is mostly (63.3%) due to their misconception that no more IFA supplement is required after delivery, followed by intolerance to IFA ingestion (26.7%).

Table 4.5: Percentage distribution of recently delivered mothers according to current practice of IFA supplementation and future intention of IFA consumption by district

Knowledge about anaemia and IFA supplement	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Currently using IFA Tablet		18.0		18.0		18.0		
Average number of IFA Tablet consumed after birth		35.4		36.0		35.7		
Reasons for not using IFA supplement								
Nobody told		64.6		54.9		59.8		
Not required now		19.5		32.9		26.2		
Suggested by service provider				2.4		1.2		
Can't tolerate IFA tablet		14.6		7.3		11.0		
Nobody help to bring medicine				2.4		1.2		
Bad test		1.2				.6		
N		**82**		**82**		**164**		
Reasons for using IFA supplement								
Nobody told				5.6		2.8		
Not required now				5.6		2.8		
Suggested by service provider		94.4		61.1		77.8		
I can't tolerate IFA tablet				5.6		2.8		
it is good to take				11.1		5.6		
my relative are suggest me		5.6				2.8		
baby will get breast milk				5.6		2.8		
Others (Specify)				5.6		2.8		
N		**18**		**18**		**36**		
Intend to consume IFA supplement at next pregnancy		85.0		87.0		86.0		
N		**100**		**100**		**200**		
Reasons for refusal to use IFA supplement at next pregnancy								
Not necessary		30.8		33.3		31.6		
Can't tolerate IFA Tab.		38.5		33.3		36.8		
Do not want children		15.4		33.3		21.1		
I will take homeopath		7.7				5.3		
Other		7.7				5.3		
N		**13**		**6**		**16**		
Intend to consume postnatal IFA supplement next time		82.0		88.0		85.0		

Knowledge about anaemia and IFA supplement	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Reasons for refusal to use next postnatal IFA supplementation								
Not necessary		61.1		66.7		63.3		
Can't tolerate IFA Tab.		27.8		25.0		26.7		
3		5.6				3.3		
4				8.3		3.3		
Other		5.6				3.3		
Total		100.0		100.0		100.0		
N		**18**		**12**		**30**		

CHAPTER-5
Knowledge, Perception and Activities of Health Workers

5.1 Background Characteristics of the Health Workers

Majority of the health workers in midline (65.0%) are below 40 years of age as compared to above 40 years at baseline (63.1%). The mean age of the health workers at baseline and midline was/is 41.7 years and 35.8 years respectively indicates that health workers at midline are relatively younger than their counterparts at baseline. Among the interviewed health workers at midline, 33.3 percent is Family Welfare assistant (FWA), 33.3 percent is Health assistant (HA) and equal proportion (33.9%) is Community Health Care Provider (CHCP). Survey finding further shows that compare to 59.6 percent at baseline, 65.9 percent of the health workers has education up to higher secondary level at midline. Variation exists across the districts. Details are in Table 5.1. Percentage of health workers with education more than higher secondary level is almost equal at baseline (34.5%) and midline (34.1%). Primarily, 66.6 percent of the health workers (FWA and HA) are domiciliary field workers, however provide health care from the community clinic 2-3 days a week and 33.3 percent are stationed at community clinic to provide health care from clinic round the week. As regard to duration of work, it is not more than five years for the most (84.2%) at midline in contrast to five years and higher (61.9%) for the most at baseline. The average duration of work of the health workers in the surveyed areas is 3.8 years at midline as compared to 13.8 years at baseline. There is no substantial variation in duration of work across the district.

Table 5.1: Percentage distribution of the health workers by background characteristics

Background characteristics	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Age in years								
21-30	20.9	47.5	14.6	50.8	17.9	49.2		
31-40	16.3	19.7	22.0	11.9	19.0	15.8		
41-50	39.5	18.0	43.9	18.6	41.7	18.3		
51-60	23.3	14.8	19.5	18.6	21.4	16.7		
Mean Age	41.6	35.4	41.8	36.1	41.7	35.8		
N	**43**	**61**	**41**	**59**	**84**	**120**		
Designation of the health workers								
SACMO	93		-		4.8			
FWV	9.3		12.2		10.7			
FPI	4.7		9.8		7.1			
FWA	3.6	32.8	39.0	33.9	35.7	33.3		
MA	7.0		4.9		6.0			
HI	2.3		-		26.2			
AHI	2.3		4.9		3.6			
HA	27.9	32.8	24.4	32.2	1.2	33.3		
Nurse	2.3		4.9		3.6			
M/O	2.3		-		1.2			
CHCP		34.4		32.2		33.3		
N	**43**	**61**	**41**	**59**	**84**	**120**		
Educational qualification								
SSC	34.9	23.0	22.0	25.4	28.6	24.2		
HSC	32.6	49.2	29.3	33.9	31.0	41.7		
Hons.	20.9	16.4	29.3	20.3	25.0	18.3		

Background characteristics	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Masters	9.3	11.5	9.8	20.3	9.5	15.8		
Others	2.3		9.8		6.0			
N	**43**	**61**	**41**	**59**	**84**	**120**		
Current place of posting								
UHC	39.5		9.8		25.0			
MCWC	-		7.3		3.6			
UH&FWC	60.5		9.8		35.7			
CC	-	34.4	-	32.8	-	33.3		
Field Worker	-	65.6	73.2	67.2	35.7	66.7		
Others	-		-					
Satellite clinic								
EPI Outreach Site								
N	**43**	**61**	**41**	**59**	**84**	**120**		
Duration of work in the current place of posting								
Up to 5 years	32.6	86.9	43.9	81.4	38.1	84.2		
5-10 years	16.3	11.5	9.8	10.2	13.1	10.8		
10-15 years	4.7	1.6	2.4	6.8	3.6	4.2		
15-20 years	11.6		17.1		14.3			
20-25 years	20.9		14.6	1.7	17.9	0.8		
25-30 years	-		-		-			
More than 30 years	14.0		12.2		13.1			
Average	14.6	3.2	12.8	4.5	13.8	3.8		
N	**43**	**61**	**41**	**59**	**84**	**120**		

5.2 Catchment Population and Client Served by the Health Workers

The Table 5.2 demonstrates that compare to 3,404 households and 17,125 populations at baseline, by and large; a health workers are likely to address 1558 households and 6856 populations at midline. Similarly, compare to 1,720 women of reproductive age, 1,221 under-5 children and 1,992 pregnant women at baseline, an average of 3,853 women of reproductive age, 808 under-5 children and 44 pregnant women are being served by a health worker in her working areas. Besides, a health worker at midline addresses an average of 1,170 married women at reproductive age. District-wise analysis shows considerable variation across the surveyed districts. Details are in Table 5.2.

Table 5.2: Average number of household, population, women at reproductive age and pregnant women served by the health workers by surveyed district between baseline and midline

Service	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Households								
Mean	4535.67	1643.85	2336.26	1478.77	3403.62	1558.25		
Median	2230.00	1398.00	1429.00	1465.50	1796.50	1430.00		
N	**33**	**52**	**35**	**56**	**68**	**108**		
Population								
Mean	22887.74	6990.14	11527.31	6719.81	17125.20	6856.13		
Median	11223.50	6280.00	7290.00	6737.00	8554.00	6732.00		
N	**34**	**59**	**35**	**58**	**69**	**117**		
Women at reproductive age								
Mean	5356.25	1743.55	2396.18	1697.89	3853.45	1720.04		
Median	2018.00	1114.00	1527.00	1299.00	1527.00	1220.00		
N	**32**	**33**	**33**	**35**	**65**	**68**		
Married women at reproductive age								
Mean		1077.92		1244.93		1169.78		
Median		772.00		1103.00		953.50		
N		**36**		**44**		**80**		
Under 5 children								
Mean	1518.86	934.37	905.91	695.52	1221.14	808.08		
Median	626.50	924.00	615.00	724.50	619.50	775.00		
N	**36**	**41**	**34**	**46**	**70**	**87**		
Pregnant women								
Mean	517.28	42.89	80.59	45.60	1991.80	44.25		
Median	96.50	41.00	36.00	37.00	872.50	39.00		
N	**36**	**55**	**34**	**55**	**82**	**110**		

5.3 Training of the Domiciliary Health Workers

Compared to 34.6 percent of FWA and 25.0 percent of HA at baseline, percentage of FWA and HA received training at midline are 32.5 percent and 35.1 percent HA respectively. Besides, FWA and HA, 32.5 percent of the CHCP at midline are found to receive training in addition. CHCP were not included during baseline survey. In response to a query whether the health workers received refresher training, 36.8 percent of FWAs, 33.8 percent of HAs and 29.4 percent of CHCPs received so. However, at baseline refresher training was received by 22.6 percent of FWA and 13.1 percent HA.

Table 5.3: Percentage distribution of the domiciliary health workers received training on IFA supplementation

Designation of health workers and Subjects of training	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Category of health workers received training								
FWA	31.2	32.8	39.0	32.1	34.6	32.5		
HA	25.6	34.5	24.4	35.7	25.0	35.1		
CHCP	-	32.8	-	32.1	-	32.5		
N	**43**	**58**	**41**	**56**	**84**	**114**		
Category of health workers received refresher training								
FWA	14.0	40.0	31.7	32.1	22.6	36.8		
HA	11.6	30.0	14.6	39.3	13.1	33.8		
CHCP	-	30.0	-	28.6	-	29.4		
N	**43**	**40**	**41**	**28**	**84**	**68**		

5.4 Knowledge of the Domiciliary Health Workers on Anaemia

Compared to 73.3 percent at baseline, all the surveyed health workers (100.0%) at midline are aware about the term anaemia, which indicates that knowledge of the recently delivered mothers at midline is significantly higher than their counterparts at baseline ($p<0.001$). District-wise, although there is no difference in awareness in the surveyed districts at midline, awareness about anaemia was more pronounced in Satkhira (81.5%) than in Narsingdi (65.0).

The most common manifestation known to the domiciliary health workers both at baseline and midline was/is general weakness, reportedly higher at baseline than at midline (97.6% vs. 87.5%). Other major manifestations at midline are pallor of the body (65.8%), dizziness (40.0%), easy fatigue (36.7%), poor physical work capacity (12.5%), and vomiting tendency (10.0%). At baseline, other widely reported manifestations were easy fatigue (58.3%), dizziness (29.8%) and vomiting tendency (21.4%). It is to be noted that due to non-availability code manual of baseline database, considerable number of responses regarding manifestation of anaemia could not be disaggregated and has been shown as 'other'.

Regarding consequence of anaemia, the most frequently reported responses at midline are increased risk of maternal death (75.8%), followed by increase risk of low birth weight baby (68.3%) and increased severity of iron deficiency of mother (36.7%). Baseline data regarding consequence of anaemia is not available to compare.

According to the health workers, consumption IFA supplement as well as iron containing foods are the two most methods known to them. Overall, all the health workers at midline and 95.2 percent at baseline have reported that consumption of IFA supplement is/was the preventive measure of anaemia ($p<0.05$), simultaneously 88.5 percent of health workers at midline and 95.2 percent at baseline comprehend that consumption of iron containing food can also prevent the onset of anaemia.

Almost all (96.7%) the health workers at midline as compared to 35.7 percent at baseline have/had reported that dose of IFA supplementation for the pregnant woman is 'one tablet once a day'. It indicates that correct knowledge among the health workers of taking one tablet once a day is significantly higher ($p<0.001$) at midline that it was baseline. Nevertheless, it was reported as 'two tablets daily' by nearly two-third (61.9%) of the health workers at baseline as compared to 5.0 percent at midline. Knowledge of the health workers about daily dose of IFA supplementation for the pregnant women shows variation across the surveyed

districts and presented in Table 5.4 below. Four-fifth (81.7%) of the health workers at midline know that a total 270 IFA tablets is to be consumed by a pregnant woman during the pregnancy and according to 89.2 percent health workers, 90 tablets to be consumed after pregnancy. Comparable data regarding total number of IFA supplementation to be consumed by a pregnant woman could not be generated from the baseline database due to non-availability of code manual (Table 6.4). In contrast to 4th month by 75.0 percent of the health workers at baseline, most of them (85.8%) in midline have reported that IFA supplementation is to be started from 1st month of pregnancy. Although there was no substantial variation in knowledge regarding start of IFA supplementation from the 4th month of pregnancy across the surveyed districts at baseline, opinion regarding start of IFA supplementation from the first month is more pronounced in Narsingdi (95.1%) than so in Satkhira (76.3%).

Major benefits of IFA supplementation known to the health workers at midline are – it prevents the risk of low birth weight baby (75.0%), maternal anaemia (72.5%) and iron deficiency of mother at full term of pregnancy (39.2%). On the other hand, it provides energy (90.8%) and cognitivity development (36.8%) were the major benefits reported by the health workers at baseline. The most widely reported side effects of IFA supplementation both at baseline and midline were/are constipation (77.4% and 60.8%) and black coloured stool (79.8% and 87.5%). Additionally, gastric upset has been considered as another common side effect by 61.7 percent of the health workers at midline. District-wide variations of knowledge about side-effects of IFA supplementation are shown in Table 5.4. As regard to overcome the side-effects, the most widely known practice both at baseline (90.5%) and midline (79.2%) was/is to drink plenty of water throughout the day. Others known remarkable measures to overcome the side-effect of IFA supplementation at midline are to take IFA tablet after meal (47.5%), to take the tablet after dinner before sleeping (21.7%), and to eat lot of leafy vegetable (15%). The reported measures to overcome the side-effect of IFA supplementation at baseline were to take lot of leafy vegetable (85.7%) and fruits (44.0%).

Table 5.4: Percentage distribution of the health workers regarding their knowledge in anaemia by district

Knowledge about anaemia	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Ever heard about anaemia	65.0	100.0	81.5	100.0	73.3	100.0	26.7	0.000*
Manifestation of Anaemia								
Weakness	100.0	85.2	95.2	89.8	97.6	87.5	10.1	0.010*
Dizziness	32.6	32.8	26.8	47.5	29.8	40.0	10.2	0.134
Fatigue	97.7	47.5	17.1	25.4	58.3	36.7	21.6	0.002*
Vomiting tendency	2.3	8.2	41.5	11.9	21.4	10.0	11.4	0.024*
Poor physical work capacity		11.5		13.6		12.5		
Pallor of eye/hand/tongue/body/face		65.6		66.1		65.8		
convulsion		1.6		3.4		2.5		
Oedema(accumulation of fluid in body				3.4		1.7		
Blurring of vision		1.6		3.4		2.5		
Breathlessness		1.6				0.8		
Others	58.0		100.0		82.0			
Consequence of Anaemia								
Increases maternal iron deficiency		32.8		40.7		36.7		
Increased risk of low birth weight baby		70.5		66.1		68.3		
Increased risk of maternal death in case of severe anaemia		75.4		76.3		75.8		
Impaired intellectual development				10.2		5.0		
convulsion		8.2				4.2		
blood pressure		1.6				.8		
deficiency of immunity		3.3				1.7		
abortion/miscarriage		1.6				.8		

Knowledge about anaemia	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Born of physically challenged baby		1.6		3.4		2.5		
Tetanus				3.4		1.7		
Prevention of anaemia								
Intake of Iron Tablet	95.3	100.0	95.1	100.0	95.2	100.0	4.8	0.016*
Intake of Iron containing food	100.0	83.6	90.2	93.2	95.2	88.3	6.9	0.087
Others	20.9		43.9		32.1			
Doses of Iron tablet per day								
1	23.3	98.4	48.8	94.9	35.7	96.7	61.0	0.000*
2	76.7	4.9	46.3	5.1	61.9	5.0	56.9	0.000*
3			4.9	1.7	2.4	0.8		
Total number of IFA tablet to be consumed during pregnancy								
270 tablets (recommended)	2.3	91.8	2.4	71.2	2.4	81.7	79.3	0.000*
Don't know	16.3	8.2		27.1	8.3	17.5	9.2	0.060
Other	81.4		97.6	1.7	89.3	0.8		
N	**43**	**61**	**41**	**59**	**84**	**120**		
Total number of IFA tablet to be consumed after delivery								
90 tablets (recommended)		100.0		78.0		89.2		
Don't know								
Other				22.0		10.8		
N		**61**		**59**		**120**		
From which month of pregnancy a mother should take IFA tablet								
1st month		95.1		76.3		85.8		
2nd month	2.3			3.4	1.2	1.7	0.5	0.772
3rd month	18.6	3.3	24.4	11.9	21.4	7.5	13.9	0.004*
4th month or later	74.4	1.6	75.6	8.5	75.0	5.0	70.0	0.000*
Don't know	4.7				2.4			
N	**43**	**61**	**41**	**59**	**84**	**120**		
Benefit of IFA								
Prevents low birth weight baby		68.9		81.4		75.0		
Prevents maternal anemia at term		75.4		69.5		72.5		
Prevents maternal iron deficiency at term		42.6		35.6		39.2		
development of intellectual		1.6		3.4		2.5		
check abortion		1.6				.8		
sufficient breast milk		1.6		5.1		3.3		
Prevent anaemia	4.7				2.6			
Gives Energy	97.7		81.8		90.8			
Cognitivity development	60.5		6.1		36.8			
Others	25.6		39.4		31.6			
Side Effect of Iron tablet								
Constipation	88.4	73.8	65.9	47.5	77.4	60.8	16.6	0.013*
Dizziness	32.6	13.1	29.3	15.3	31.0	14.2	16.8	0.004*
Black Stool	93.0	82.0	65.9	93.2	79.8	87.5	7.7	0.136
Gastric problem		45.9		78.0		61.7		
Nausea		4.9		10.2		7.5		
Loss of appetite		1.6				.8		
Others	37.2		61.0		48.8			
Don't know	2.3		2.4		2.4			
N	**43**	**61**	**41**	**59**	**84**	**120**		
Awareness about methods to overcome the side effects								
Take the tablet after dinner before sleeping		19.7		23.7		21.7		
Take the tablet after a meal		47.5		47.5		47.5		
Drink lots of water through the day	95.3	82.0	85.4	76.3	90.5	79.2		
take sufficient rest				1.7		0.8		
take one tablet in every alternative day		1.6		3.4		2.5		
Suggest to take antacid tablet				1.7		.8		
Suggest eating much vegetables		14.8		15.3		15.0		
husk of esupgul		1.6				0.8		

Knowledge about anaemia	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
take much vitamin		1.6				0.8		
take tablet at the mid of the meal				1.7		0.8		
Taking leafy vegetables	95.3		75.6		85.7			
Taking fruits	67.4		19.5		44.0			
Don't know value label	4.7		2.4		3.6			
Others			41.5		20.2			
N	**43**	**61**	**41**	**59**	**84**	**120**		

*Significant at 5% level of significance

5.5 Service Delivery of the Health Workers

The survey finding shows all the health workers (FWA, HA and CHCP) at midline are involved in distributing IFA tablet to the pregnant women. Almost all (98.3%) of them in both the districts provide 30 IFA tablet to a pregnant woman in each trip of consultation/visit. Added to this, almost all of them reported that they re-supply IFA tablets to the pregnant women in their next trip/visit. In addition to the pregnant women, all domiciliary health workers are also involved in providing IFA tablets to the recently delivered mothers. Like-wise the pregnant women, health workers provide 30 tablets to a mother in each time of her postnatal visit after birth and continued so for three successive visits to a total of 90 IFA tablets. Related baseline is not available to compare.

Table 5.5: Percentage distribution of the health workers by service delivery by district

Designation of health workers and subjects of training	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Provide IFA supplement to pregnant women								
FWA		32.8		33.9		33.3		
HA		32.8		33.9		33.3		
CHCP		34.4		32.2		33.3		
Number of Tablet Provided each time in the ANC period								
30 tablets (recommended)		100.0		98.3		99.2		
Don't know								
Other				1.7		0.8		
Average		30.0		29.6		29.8		
N		**61**		**59**		**120**		
Re-supply IFA tablet to the pregnant women		98.4		98.3		98.3		
Provide Iron Tablet to post partum women								
FWA		33.3		34.5		33.9		
HA		31.7		32.8		32.2		
CHCP		35.0		32.8		33.9		
Number of tablet Provided each time to post partum women								
30 tablets (recommended)		100.0		93.2		96.7		
Other				6.8		3.3		
Re-supply IFA tablet to the post partum women		100.0		100.0		100.0		
N								

5.6 Monitoring and Supervision of IFA Supplementation

By and large, 68.3 percent of the health workers at midline reported that they conduct home visit. It is to note that among the field based health workers, CHCP are based on community clinic and usually not making any home visit. Those, who conducts home visit, majority of them do so once in a month. Moreover, 24.4 percent make home visit once in a week and 18.3 percent 2-3 times in a week. Differences by districts have been shown in Table 6.6. During home visit, majority of health workers (74.4%) use to check the utilization of IFA supplementation, provide counseling in favour of utilization of IFA supplementation and ANC check-up. The Table 6.6 further demonstrates that as high as 95.8 percent of the health workers monitor the utilization of IFA supplementation of the pregnant women regularly. They usually do so at health facility during ANC visits (61.7%), during home visits (58.3%), EPF sessions/camps (22.6%) and mother's meeting (15.7%). The most common approach is asking the pregnant women about utilization of IFA supplement (97.4%), followed by checking empty blister/sachets (33.9%), checking with family members/caregivers (27.0%), and while solving problem or counseling (20.0%) to continue the IFA supplementation. According to the health workers, 59.9 percent has developed a plan to monitor the utilization of IFA supplementation among pregnant women. Details including district-wise variations are shown in Table 5.6

Table 5.6: Percentage distribution of the health workers by monitoring and supervisions

Knowledge about anaemia and IFA supplement	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Provide Domiciliary Service		67.2		69.5		68.3		
Frequency of home visit								
2-3 times in a week		14.6		22.0		18.3		
Once in a week		29.3		19.5		24.4		
Once in a month		53.7		51.2		52.4		
After two month		2.4		7.3		4.9		
Type of services monitored during home visits								
Check utilization of IFA		80.5		68.3		74.4		
Counseling on IFA		65.9		68.3		67.1		
Resupply IFA tablets		31.7		4.9		18.3		
ANC counseling		48.8		48.8		48.8		
Monitoring IFA utilization among pregnant women		100.0		91.5		95.8		
Contact point of monitoring the compliance/utilization of IFA tablets								
Home visit		57.4		59.3		58.3		
Mothers meeting		16.4		14.8		15.7		
At health Facility during ANC visit		68.9		53.7		61.7		
EPI sessions		27.9		16.7		22.6		
Mode of monitoring								
Ask pregnant women		96.7		98.1		97.4		
Check empty blisters/sachets		42.6		24.1		33.9		
Check with family members/caregivers		29.5		24.1		27.0		
Problem solving/counseling to continue		23.0		16.7		20.0		
Developed monitoring plan								
Yes		62.3		55.9		59.2		
N								

5.7 Counseling and Use of IEC/BCC Materials

Reportedly, almost all (99.2%) the health workers at midline counsel the pregnant women about anaemia as well as its consequences. The subjects of counseling of 91.6 percent of the health workers are about dose, side-effects and benefits of IFA supplementation. Additionally, almost all (99.2%) the health workers at midline reported that they counsel the pregnant women for regular consumption of IFA supplement all through the pregnancy. The common places of counseling are health facility during ANC (66.9%), residence of the women during home visits (60.2%), EPI sessions/camps (40.7%) and to some extent at the meeting place of the mothers (22.0%). As regard to counseling of the pregnant women on IFA supplementation, 64.7 percent of the health workers have prepared a plan. In the last month preceding the survey, 73.9 percent of the health workers provide counseling to the pregnant mothers in groups. According to fourth-fifth (79.8%) of the health workers, IEC/BCC materials are used at the time of counseling. The most widely used IEC material during counseling is festoon hangs on the wall (78.9%), followed by brochure 46.3%), flipchart (15.8%) and leaflet (13.7%). More than half (59.7%) of the health workers have reported festoon as a most effective means of IEC/BCC. Among the IEC/BBC materials displayed in the health facility, the most common material is festoon (93.9%), followed by brochure (26.1%). Inter personal communication is usually applied in health facility (44.5%), mother's meeting (25.2%) and home visits (24.4%). Comparable baseline is not available.

Table 5.7: Percentage distribution of the health workers involved with counseling and use of IEC/BCC materials

Counseling and IEC/BCC materials	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
HW counsel PWs on anemia and its consequences		100.0		98.3		99.2		
HW counsel PWs on Dosage, side effects and benefits of IFA		95.1		87.9		91.6		
HW counsel PW on regular consumption of IFA		100.0		98.3		99.2		
Place where HWs counsel PWs on IFA								
Home visits		59.0		61.4		60.2		
Mothers meeting		23.0		21.1		22.0		
At health facility during ANC visit		70.5		63.2		66.9		
EPIs sessions/camps		37.7		43.9		40.7		
HW who have plan to counsel PWs on IFA		62.3		67.2		64.7		
HW who conduct group counseling session in previous month on IFA		68.9		79.3		73.9		
Place of counseling session in previous month								
EPI sessions		42.9		39.1		40.9		
ANC sessions		40.5		28.3		34.1		
Home visit		16.7		32.6		25.0		
HW who use IEC/BCC material for counseling		75.4		84.5		79.8		
Type of communication materials displayed								
Festoon hanging on wall		78.3		79.6		78.9		

Counseling and IEC/BCC materials	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Brochure		43.5		49.0		46.3		
Leaflet		10.9		16.3		13.7		
Flipchart	50.0	13.0	100.0	18.4	66.7	15.8		
Flashcard		2.2		4.1		3.2		
Pictorial fan with message		4.3				2.1		
Poster	50.0				33.3			
Health facility where IEC/ BCC materials displayed		96.7		96.6		96.6		
Type of communication materials displayed in health facility								
Festoon hanging on wall		94.9		92.9		93.9		
Brochure		30.5		21.4		26.1		
Flipchart		11.9		3.6		7.8		
Leaflet		8.5		17.9		13.0		
Leaflet with five danger sign of pregnancy				1.8		0.9		
According to HW effective IEC/BCC								
Festoon hanging on wall		60.7		58.6		59.7		
Brochure		9.8		8.6		9.2		
Flipchart		11.5		19.0		15.1		
flash card		9.8		6.9		8.4		
leaflet		16.4		12.1		14.3		
Leaflet with five danger singe				1.7		0.8		
Pictorial fan with message				1.7		0.8		
Place where IPC tools used								
Mothers meeting		27.9		20.7		24.4		
Home visits		24.6		25.9		25.2		
Follow up visit		6.6		5.2		5.9		
Health Center		41.0		48.3		44.5		
N								

5.8 IFA Supply and Stock Position

Regarding stock of IFA supplement with each health worker, fourth-fifth (81.7%) of them has reported to maintain an adequate[4] stock of IFA for the next month. Overall, 97.2 percent of the health workers have collected more than 1000 IFA tablet for distribution. On average that counts to 2945 tablets. On the other hand, average number of IFA tablet that have been distributed to the pregnant mothers in last month was 11645. Nevertheless, according to 86.3 percent of the health workers, there was a stock-out IFA supplement in their health facility during the previous month.

[4] Adequate means at least 600 IFA tablet for distribution to 20 pregnant women at the rate of 30 tablets each.

Table 5.8: Percentage distribution of the health workers who have reported about supply and stock position of IFA supplementation

Supply and stock position of IFA tablets	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
HW having adequate stock of IFA (at least 600 tabs each for 20 PW/month)		86.9		76.3		81.7		
IFA supplements received at the health facility in the previous month								
1000+		93.8		100.0		97.2		
800-999		6.2				2.8		
600-799								
Less than 600								
Average		3137.50		2787.44		2945.21		
IFA supplements distributed in the previous month								
1000+		45.9		60.8		52.7		
800-999		26.2				14.3		
600-799		6.6		15.7		10.7		
Less than 600		21.3		23.5		22.3		
Average		1141.75		1191.18		1164.26		
Health facility where IFA stocked out previous month		90.2		83.1		86.3		
How many days HW attended at CC last week		3.6		3.7		3.6		
N								

5.9 Recording and Reporting

According to 94.2 percent of the health workers, reporting form and register are always available in the health facility. Average number of pregnant women enrolled for registration for the first time in last month was 5. On the other hand, average number of pregnant women provided with IFA supplement during the last month from Community Clinic (CC) was 15. At the time of interviews with the health workers an attempt has been done to verify their recorded information with actual performance. To do so at least five entries on three important issues haves been checked in their registers for completeness, consistency of information. It has been observed that information on pregnant mothers, who enrolled for ANC for the first time was correct in 94.2 percent cases, information on women seeking ANC counseling was correct in 90.8 percent cases, however, entries regarding delivery were not complete and consistent with actual performance. Monthly report is submitted by 90.3 percent health worker in time or within first 7 days of the next month.

Table 5.9: Percentage distribution of the health workers by recording and reporting

	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Availability of reporting forms and registers at the health facility always		96.7		91.5		94.2		
Average number of PW enrolled for the for the first time for ANC at HF/CC		5.5		4.8		5.2		
Average number of pregnant women provided with IFA supplements who visited the CC in the last month		15.8		14.4		15.2		
Complete and correct recoding in the register (% of positive response)								
Pregnant women enrolled for first time for ANC		90.2		94.9		92.5		
Women seeking ANC counseling		90.2		91.5		90.8		
Delivery		1.7		1.7		1.7		
Whether monthly report is submitted timely		98.4		98.3		98.3		
N								

CHAPTER-6
Knowledge, Perception and Activities of Supervisors

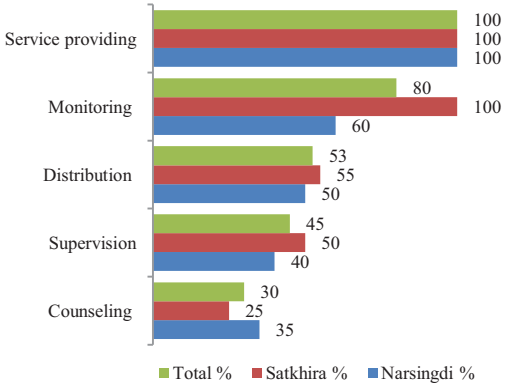
In the midline survey different types of supervisors, from the both health and family planning wings, are also interviewed. In order to assessing their knowledge, perception and activity related to IFA supplementation program, a total of 40 supervisors interviewed. This chapter presented the information on supervisor's knowledge, perception, supervision, program monitoring and job responsibilities regarding IFA supplementations program and other services what they are provided during their day-to-day work —particularly at the time of supervision and monitoring their staff and program.

The survey interviewed 40 supervisors from Satkhira and Narsingdi district—each district consist of 20 supervisors—on the basis of random sampling from a list provided by MI. Some 67 percent of them are Family Welfare Visitor (FWV) —directly providing services to pregnant women and their prime duties are ANC, PNC and attending delivery. Others are SACMO (6.67%), FPI (10%), HI (6.67%) and AHI (10%). SACMO and FWV are currently posted in Union Health and Family Welfare Centre (UH&FWC), HIs are posted in Upazila Health Complex (UHC) and others are in the field level staff and directly supervise c health workers—namely FWAs and HAs. The findings are presented below based on the supervisors interviewed (in the baseline survey no supervisor interview was administrated separately so in the midline survey we are not able to compare the midline findings with baseline).

6.1 Duties and Responsibilities of the Supervisors

Supervisors were asked about their job responsibilities. In response they mentioned activities what they are usually perform. Visit field to monitoring and supervision health workers activities, visit community clinic (CC), visit EPI and satellite clinic to assist and supervise, identify diabetics and TB patients, motivate the community people to practice family planning, provide health education, provide family planning services, monitoring IFA tablet consumption and others medicine distribution, monitor TT program for children and pregnant women, coordinate field work of health workers, collect weekly and monthly progress reports of health workers, compile report to present and submit to their higher authorities, and attend at weekly and monthly coordination meeting to coordinate and review their plan and achievement. In broad sense we classify their jobs in four categories—service providing, monitoring, distribution, supervision, and counselling. Figure 6.1 shows their answer in broad sense. According to the supervisors, service providing (100%) is the prime job, followed by monitoring, distribution, supervision, and counselling of the pregnant women for consumption of IFA supplementation. In an average a number of 10 health workers are reportable to each supervisor—in Satkhira 8 and Narsingdi the number is 11(Table: 6.1)

Figure 6.1: Job Responsibilities of Supervisor



6.2 Knowledge of Supervisor about Anaemia

The study finds that all the supervisors are aware of anaemia and also know the symptom of anaemia. In response to the question about symptom of anaemia most of the supervisors mentioned general weakness (90%). Other symptoms are as follows: dizziness (40.0%), fatigue (42.5%), vomiting tendency (7.5%), poor physical work capacity (27.5%), pallor of conjunctive face and palm (40.0%), vertigo (2.5%), and blurred eye (2.5%). It has been found that supervisors are well aware about the consequences of anaemia. Reported consequences of anaemia are: increases maternal iron deficiency (42.5%), increased risk of low birth weight baby (72.5%), increased risk of maternal death in case of severe anaemia (77.5%), convulsion (5.0%), eclampsia (2.5%), postpartum hemorrhage (2.5%), and decrease ability to do work (2.5%). There is no segregated data on the supervisors' knowledge and perception about anaemia for baseline survey and could not be compared with midline findings (Table: 6.1).

Table 6.1 Knowledge and Skills of the supervisors about anaemia

Knowledge, symptom and consequences	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Avg. Number of HWs reportable to each Supervisor		7.89		11.00		9.53
N		**10**		**10**		**20**
% of supervisor with knowledge about anaemia		100.0		100.0		100.0
N		**20**		**20**		**40**
Symptoms of anaemia*(multiple response)*						
Weakness		80.0		100.0		90.0
Dizziness		30.0		50.0		40.0
Fatigue		40.0		45.0		42.5
Vomiting tendency		10.0		5.0		7.5
Poor physical work capacity		35.0		20.0		27.5
Pallor of conjunctive, face and palm		40.0		40.0		40.0
Vertigo		5.0		00.0		2.5
Blurred eye		5.0		00.0		2.5
N		**20**		**20**		**40**
Understanding on consequences of anemia*(multiple response)*						
Increases maternal iron deficiency		40.0		45.0		42.5
Increased risk of low birth weight baby		80.0		65.0		72.5
Increased risk of maternal death in case of severe anaemia		85.0		70.0		77.5
Convulsion		10.0		00.0		5.0
Eclampsia		5.0		00.0		2.5
Postpartum hemorrhage		5.0		00.0		2.5
Decrease ability to do work		00.0		5.0		2.5
N		**20**		**20**		**40**

6.3 Monitoring and Supervision of Supervisors

Monitoring help to find out the real problems in practice and improve the performance of the program. In order to know the status of the performance, effectiveness, and practices of the supervisors—to whom health worker, particularly HA, FWA and CHCPs are reportable. The Table 6.2 presents the frequency of the supervision and monitoring, way of monitoring, using checklist for monitoring, type of service they provide during the home visit, types of materials use for BCC/IEC and about Health Management Information System (HMIS) they used.

The Table 6.2 further presents the frequency of the supervision/monitoring of the supervisors. It reveals that 25.0 percent of the supervisors —both in Narsingdi and Satkhira undertake supervisory/monitoring visit to their staff at least 2 to 3 times in a week. A 12.5 percent (10.0

percent in Narsingdi and 15 percent in Satkhira) mentioned they visit their staff once a week and only 10.0 percent from Satkhira do it fortnightly. It is to be noted that no health worker are reportable to FVW—almost 50 percent of the respondent—so that in response to the question how frequently they visit to their staff: the reply was not applicable (57.5%). Supervisors usually compare the number of monthly home visits conducted with the number planed by the health workers (76.5%) and checking their register entries for the last month (23.5%). 82.4 percent supervisor (71.4 percent from Narsingdi and 90.0 percent from Satkhira) mentioned that they use checklist during their monitoring visit.

About home visits, the study shows that almost all supervisors conduct home visit (94.1%). All supervisor from Narsingdi and 90.0 percent from Satkhira did home visit for the purpose of monitoring and during the time of home visit they use to check EPI card to know whether 0 to 3-year old children are immunized, register of the pregnant women, the status of household visit done by the health workers, monitoring family planning activities, IFA tablet distribution and counselling. About 37.5 percent to 57.5 in Satkhira and 22.2 percent in Narsingdi—mentioned that they monitor the distribution status of IFA supplement when they make visit field for the supervision and monitoring the health workers and program. Almost all the supervisor (87.5%) mentioned that as they visit their filed, they also monitor whether the health workers are working properly as scheduled (Table 6.2).

All the supervisors use BCC/IEC materials during their home visit to supervise their staff (FWVs are excluded from the analysis because of they are not suppose to supervise HA, FWA and CHCP). Here in this study almost 50% respondent among the supervisor are FWV, and rest of respondent are SACMO, FPI, HI, and AHI. Half (50%) of the supervisors used BCC materials at the time of field visit. Of the IEC/BCC materials, leaflet is used by 50.0 percent of the supervisors and festoon by 37.5 percent. All supervisors in Satkhira and Narsingdi counsel pregnant women and recently delivered mothers to complete the full course of IFA tablets (Table 6.2).

To assess the performance of IFA supplementation program, regular supply of the program related information to the concerned management is an essential task of the supervisors. To measure the progress and success of the program, a regular and timely reporting system has been adopted in the IFA supplementation program. Like other Health Information Monitoring System (HIMS), health workers (HA, FWA and CHCP) are found to submit their monthly report regularly to their supervisors. In this purpose, they use 'Health Center Reporting Form-1' and Upazila and Zila's Reporting Form-2 supplied by MI.

In response to how they compile the monthly report, supervisors explained that health workers initially prepare the report from their registers—where they use to record day to day information about pregnant women, number of IFA tablet distributed and adequacy of current stock of IFA tablet and submit the report to their concerned supervisors. The reports of the health workers are compiled by the supervisors and submitted to respective higher authority. The study reveals that 40.0 percent and 50.0 percent of the supervisors from Narsingdi and Satkhira respectively receive HMIS/monitoring report in time and in complete form. Out of total 47.5 percent supervisor— 55.0 percent from Narsingdi and 40.0 percent from Satkhira were FWV and supervision is not applicable to them. Thus, we found that almost all supervisors (here it is 47.5 percent) received their monitoring report timely and complete. All supervisors likely to give feedback to their staff about monitoring results and discuss the key findings of the observations in the monthly coordination meeting at upazila level (see Table 6.2).

Table 6.2 Monitoring and supervision

Monitoring and Supervision	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Frequency of the supervision/monitoring						
2-3 times a week		25.0		25.0		25.0
Once a Week		10.0		15.0		12.5
Fortnightly		00.0		10.0		5.0
Monthly		00.0		00.0		00.0
Not Applicable		65.0		50.0		57.5
Never		00.0		00.0		00.0
N		**20**		**20**		**40**
Way of supervision/monitoring						
Comparing the number of monthly home visits conducted with the number expected		71.4		80.0		76.5
By checking their register entries for the last month		28.6		20.0		23.5
N		**7**		**10**		**17**
Using checklist for monitoring visit by Supervisors						
Yes		71.4		90.0		82.4
N		**7**		**10**		**17**
Domiciliary Service						
Conduct home visit		100.0		90.0		94.1
N		**7**		**10**		**17**
During home visit type of service provided						
Check EPI cards		14.3		11.1		12.5
Monitoring whether HW are working properly		85.7		88.9		87.5
Check EPI whether 0 to 3-year old children are immunized		85.7		66.7		75.0
Check pregnant registration list		14.3		11.1		12.5
Household visit monitoring		28.6		11.1		18.8
Monitoring BCC IEC work done by health workers		14.3		00.0		6.3
Service delivery monitoring		14.3		00.0		6.3
Monitoring IFA tablet distribution		57.1		22.2		37.5
Monitoring family planning activities		14.3		11.1		12.5
Find Arsenicosis		00.0		22.2		12.5
Counseling on child diarrhea and pnewnomia		00.0		11.1		6.3
N		**7**		**9**		**16**
% of supervisor use of BCC materials during home visit or supervision of staff		42.9		55.6		50.0
N		**7**		**9**		**16**
Types of materials for BCC/IEC use by supervisor (multiple response)						
Festoon (hanging on the wall)		33.3		40.0		37.5
Brochure		00.0		00.0		00.0
Leaflet		66.7		40.0		50.0
Flip chart		00.0		20.0		12.5
N		**3**		**5**		**8**
% of supervisor counsel PWs / post partum women to take the full course of IFA tablets		100.0		100.0		100.0
N		**20**		**20**		**40**
Receiving HMIS/monitoring reports						
Timely but not complete		00.0		00.0		00.0
Complete but not timely		00.0		00.0		00.0
Timely and complete		40.0		50.0		45.0
Don't get reports		5.0		10.0		7.5
Not Applicable		55.0		40.0		47.5
N		**20**		**20**		**40**
% of supervisor give feedback of monitoring visits to your staff		35.0		65.0		50.0
N		**20**		**20**		**40**
% of Supervisor discuss the key observations from of monitoring visits in the monthly meetings at upazilla level		45.0		55.0		50.0
N		**20**		**20**		**40**

6.4 Monitoring and Supervision of Supervisors

Most of the supervisors received training on IFA supplementation program. In this study we found that overall 87.5 percent (80.0% in Narsingdi and 95.0% in Satkhira respectively) of supervisors have received training on IFA supplementation. Study found that 85.7 percent supervisors (75.0 from Narsingdi and 94.7 percent of supervisor feel that they need refresher training (Table 6.3).

Table 6.3 Percentage distribution of supervisor by training on Anaemia and IFA supplementation

Training on IFA supplementation	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
% of Supervisor received any training on IFA		80.0		95.0		87.5
N		**20**		**20**		**40**
% of supervisor feel further training on IFA is necessary		75.0		94.7		85.7
N		**16**		**19**		**35**

CHAPTER-7
Conclusion

The study for assessing the knowledge, attitudes and practices of the pregnant women and health workers on the use of IFA supplementation was conducted in Satkhira and Narsingdi districts. *The Micronutrient Initiative Bangladesh* is supporting the Government of Bangladesh by piloting the program in Satkhira and Narsingdi to demonstrate an effective program model in order to increasing the coverage and utilization of IFA supplements among pregnant women. In the midline survey sample of recently delivered women, community level health workers, and their supervisors were interviewed from the project areas. The findings of midline survey are the following:

1. Compare to 80.2 percent at baseline, percentage of recently delivered mothers received ANC from any providers at midline is 92.8 percent.
2. Overall percentage of four ANC from any providers raised to 39.5 percent at midline as compared to 29.8 percent at baseline.
3. Compared to 14.8 percent at baseline, percentage of recently delivered mothers received at least one home based ante-natal care from the health worker is 50.3 percent at midline.
4. Currently 78.0 percent of the recently delivered mothers at midline have heard about anaemia as compared to 73.2 percent at baseline.
5. The most pronounced manifestation of anaemia was/is general weakness—79.9 percent at baseline and 88.5 percent at midline—other notable manifestations were/are vertigo (52.2% at baseline and 44.2% at midline) and fatigue (22.2 at baseline and 23.1 at midline).
6. The most commonly known measure for prevention of anaemia was/is consumption of iron rich food at baseline (89.4%) and midline (73.1%), followed by intake of IFA supplement as stated by 32.4% percent of mothers at baseline and 67.3% at midline.
7. 48.8 percent of the recently delivered mothers at baseline and 56.5 percent at midline reported that IFA supplement can prevent the onset of anaemia. Additionally, 52.5 percent of the mothers at midline have reported that IFA supplement is likely to prevent the deficiency of iron during faetal growth.
8. Overall 54.8 percent of the recently delivered mothers at baseline and 64.0 percent at midline knows the recommended dose of IFA of taking one tablet per day. However, recommended days of IFA tablet to be continued 270 days is known to 9.0 percent at midline as compared to 1.3 percent was at baseline.
9. Reportedly, 68.2 percent of the recently delivered mothers received IFA tablet during last pregnancy at baseline, which is raised to 83.0 percent at midline.
10. The major source of IFA supplement at midline is community clinic (97.0%), followed by pharmacy (61.4%).
11. Compared to 3.3 percent at baseline, more than two-fifth (44.0%) recently delivered mothers at midline received counseling on IFA supplement with the help of IEC/BCC materials during ANC.
12. It is evident that 32.5 percent recently delivered mothers received home based ANC at midline. At midline, home-based ANC is primarily provided by FWA (40.0%) as well as NGO worker (44.6) and to some extent by the HA (20.0%).

13. More than half of the service providers (53.8%) advise the mothers to take IFA supplementation during postnatal period.
14. Overall, 18.0 percent of the recently delivered mothers have reported that they are using IFA supplement at present.
15. The reason for consumption of IFA supplement after birth of baby is essentially due to advice given by the service providers (77.8%) during ANC and PNC.
16. 86.0 percent of the recently delivered mothers at midline likely to consume IFA supplement during their next pregnancy and 85.0 percent after delivery if conceive again.
17. Compared to 73.3 percent at baseline, all the surveyed health workers (100.0%) at midline are aware about the term anaemia.
18. The most common manifestation known to the health workers both at baseline and midline was/is general weakness—baseline (97.6%) and midline (87.5%)—other major manifestations at midline are pallor of the body (65.8%), dizziness (40.0%), easy fatigue (36.7%), poor physical work capacity (12.5%), and vomiting tendency (10.0%).
19. The most frequently reported consequence of anaemia at midline are increased risk of maternal death (75.8%)—followed by increase risk of low birth weight baby (68.3%) and increased severity of iron deficiency of mother (36.7%).
20. Consumption of IFA supplement (95.2% at baseline and 100% at midline) as well as iron containing foods (95.2% at baseline and 88.5% at midline) are the two most common preventive measures known to them.
21. A total 270 IFA tablets are to be consumed during pregnancy and 90 tablets after delivery is known to 81.7 percent and 89.2 percent mothers respectively.
22. Major benefits of IFA supplementation known to the health workers at midline are – prevention of risk of low birth weight baby (75.0%), maternal anaemia (72.5%) and deficiency of iron at full term of pregnancy (39.2%). On the other hand, supply of energy (90.8%) and cognitivity development (36.8%) were the major benefits reported by the health workers at baseline.
23. The most widely reported side effects of IFA supplementation both at baseline and midline were/are constipation (77.4% and 60.8%) and black coloured stool (79.8% and 87.5%). Additionally, gastric upset has been considered as another common side effect by 61.7 percent of the health workers at midline.
24. All the health workers (FWA, HA and CHCP) are involved in distributing IFA tablet to the pregnant women during pregnancy and after delivery.
25. Reportedly, almost all (99.2%) health workers at midline counsel the pregnant women about anaemia as well as its consequences. The common places of counseling are health facility during ANC (66.9%) followed by residence of the pregnant women during home visits (60.2%), EPI camps (40.7%) and to some extent at the meeting place of the mothers (22.0%).
26. Regarding stock of IFA supplement with each of the health worker, fourth-fifth (81.7%) of them has reported to maintain an adequate stock of IFA for the next month.
27. Reporting form and register are always available in the health facility (94.2 percent). Average number of pregnant women enrolled for registration for the first time in last month was 5.

28. Average number of pregnant women provided with IFA supplement during the last month from Community Clinic (CC) was 15.
29. Monthly report is submitted by 90.3 percent health worker in time or within first 7 days of the next month.
30. 88.0 percent supervisor visits their field 2-3 times in every week.
31. 76.5 percent supervisors usually compare the number of monthly home visits conducted with the number planed by the health workers and 82.4 percent mentioned that they use checklist during their monitoring visit and 94.1 percent do home visit in purpose of monitoring.
32. Almost all the supervisor mentioned that they received report from health workers—timely and in completely, and give feedback of monitoring visit to their staff and discuss the key observations in the monthly coordination meeting in the Upazila level.

Concluding remarks

The findings of midline assessment suggest that the project is performing well. For further improvement followings challenges need to be address.

- The awareness of pregnant mothers on anaemia including its prevention is an area which needs to be improved more.
- Coverage of IFA supplementation is to be enhanced through adequate (at least four) utilization of antenatal services which is often late in pregnancy and infrequent.
- Compliance to IFA supplementation is to be strengthened and should be closely monitored at field level as majority of pregnant women do not continue the IFA supplementation for recommended 270 days during pregnancy and 90 days after delivery.
- Counselling regarding IFA supplementation is to be reinforced.
- Regular training/refreshment of the health workers on IFA supplementation should be arranged as per needs—particularly for the newly appointed health worker.

Annex 1:
Survey-based Data Tables

Table 1: Percentage distribution of women by age

Age in years	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
15-19	20.0	16.0	22.0	24.0	21.0	20.0
20-24	36.0	38.0	44.5	36.0	40.3	37.0
25-29	29.5	29.0	24.0	29.0	26.8	29.0
30-34	10.0	13.0	7.5	9.0	8.8	11.0
35-39	3.5	2.0	2.0	2.0	2.8	2.0
40-44	1.0	2.0	-	-	0.5	1.0
45-49	-	-	-	-	-	-
Total	100.0	100.0	100.0	100.0	100.0	100.0
Mean Age	**23.96**	**23.99**	**23.08**	**23.25**	23.51	**23.62**
Maximum	**41**	**40**	**39**	**38**	41	**40**
minimum	**15**	**15**	**16**	**15**	15	**15**
Number of women	**200**	**100**	**200**	**100**	**400**	**200**

Table 2: Percentage distribution of women by duration after last child birth

Duration after last child birth in months	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
0	14.5	28.0	11.5	17.0	13.0	22.5
1	16.5	14.0	14.5	22.0	15.5	18.0
2	14.5	11.0	19.5	12.0	17.0	11.5
3	23.0	10.0	15.5	12.0	19.3	11.0
4	12.0	6.0	20.5	12.0	16.3	9.0
5	17.5	29.0	17.0	23.0	17.3	26.0
6		2.0		2.0		2.0
7+	2.0		1.5		1.8	
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	**200**	**100**	**200**	**100**	**400**	**200**

Table 3: Percentage distribution of women with a child age 0-6 month by number of ANC visits during the last pregnancy and received IFA Tablet

	Districts				Total		Difference	P-value
	Narsingdi		Satkhira					
	Baseline	Midline	Baseline	Midline	Baseline	Midline		
Number of ANC visit								
None	28.5	11.0	11.1	4.0	19.8	7.5		
1	18.0	15.0	13.1	14.0	15.5	14.5		
2	15.5	23.0	19.6	18.0	17.5	20.5		
3	14.0	22.0	19.6	14.0	16.5	18.0		
4+	23.0	29.0	36.7	50.0	29.8	39.5		
Don't know	1.0		0.5		0.8			
Median	2	3	3	4	2	3		
Total	200	100	200	100	400	200		
Received IFA Tablet during ANC								
Yes	46.2	73.0	78.1	90.6	63.1	82.2		
No	53.8	27.0	22.9	9.4	36.9	17.8		
Total	100.0	100.0	100.0	100.0	100.0	100.0		
Number of women	**160**	100	178	100	338	200		

Table 4: Percentage distribution of women by duration of pregnancy during 1st ANC visit

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Age of baby						
0-2	45.5	53.0	45.5	51.0	45.5	52.0
3-4	35.0	16.0	36.0	24.0	35.5	20.0
5-6	17.5	31.0	17.0	25.0	17.3	28.0
7+	2.0		1.5		1.8	
Timing of 1st ANC (month)						
No ANC	28.5	11.0	11.0	4.0	19.8	7.5
<4 month	18.5	25.0	10.5	27.0	14.5	26.0
4-5 month	25.0	37.0	34.5	44.0	29.8	40.5
6-7 month	16.0	22.0	21.0	22.0	18.5	22.0
8 + month	11.0	5.0	22.0	3.0	16.5	4.0
Don't know	29.5	-	12.0	-	1.0	-
Total	200	100	200	100	400	200
Mean	3.55	4.70	5.13	4.52	4.34	4.61
Median	4	5.00	5	4.00	5	5.00
Maximum	9	9	9	8	9	9
Minimum	0	1	0	1	0	1
Number of women	**200**	**100**	**200**	**100**	**400**	**400**

Table 5: Percentage distribution of women by place of ANC visits

Place of ANC	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Home	28.0	34.8	7.3	31.3	16.6	33.0
Public	41.3	58.4	97.8	83.3	72.7	71.4
Private	43.4	47.2	28.7	17.7	35.1	31.9
NGO	14.0	10.1	4.5	11.5	8.8	10.8
Others	2.8		4.5	1.0	3.8	.5
Don't know/missing				1.0		.5
Number of women	143	89	178	96	321	185

Table 6: Percentage distribution of women visited by front line health service providers at home

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
No home visit	78.5	60.7	93.0	39.6	85.8	49.7
Duration of pregnancy at 1st home visit						
1st trimester		34.3		24.1		28.0
2nd trimester		71.4		74.1		73.1
3rd trimester		42.9		55.2		50.5
Don't know						
Missing						
Total						
Number of women	100	35	100	58	200	93

Knowledge about Anaemia and IFA tablet

Table 7: Percentage distribution of women by knowledge about anemia

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Knows about anaemia	65.0	78.0	81.5	78.0	73.2	78.0
Manifestation of Anaemia						
Weakness	71.5	89.7	86.5	87.2	79.9	88.5
Dizziness	33.1	41.0	67.5	47.4	52.2	44.2
Fatigue	14.6	20.5	28.2	25.6	22.2	23.1
Nausea/vomiting		16.7		17.9	13.3	17.3
Poor physical work capacity		7.7		20.5		14.1
Pallor of the body	6.9		18.4	2.6	13.3	1.3
Blurring of vission	9.2	1.3	5.5	1.3	6.8	1.3
Swelling of body	6.9		6.7	1.3	6.8	.6
Don't know	15.4	2.6	1.2	2.6	7.5	2.6
Prevention of anaemia						
Intake of Iron Tablet	40.8	62.8	25.8	71.8	32.4	67.3
Intake of Iron containing food	54.6	66.7	100.0	79.5	89.4	73.1
Others	3.1		11.6		7.9	
Don't know	30.0	6.4	3.1	3.8	15.0	5.1
N		**78**		**78**		**156**
Benefit of Iron intake						
Prevent the onset of anaemia	46.0	48.0	51.5	65.0	48.8	56.5
Prevent iron deficiency for growth of faetus	3.5	55.0	13.5	50.0	8.5	52.5
good health		1.0		1.0		1.0
feel strengths				2.0		1.0
Don't know		19.0		13.0		16.0
Doses of Iron tablet per day						
1	47.5	64.0	62.0	64.0	54.8	64.0
2	26.5	14.0	19.5	21.0	23.0	17.5
3	7.5	3.0	4.0	4.0	5.8	3.5
Others	0.5		-		0.3	
Don't know	18.0	19.0	14.5	11.0	16.3	15.0
Total duration of IFA tablet to be consumed during pregnancy in days						
Up to 30 days	4.3	1.0	3.1		3.7	0.5
Up to 60 days	2.7	3.0	4.1		3.4	1.5
Up to 90 days	16.0	7.0	7.8	7.0	11.8	7.0
Up to 120 days	9.0	5.0	7.8	12.0	8.4	8.5
Up to 150 days	6.9	4.0	11.4	9.0	9.2	6.5
Up to 180 days	9.0	9.0	14.5	7.0	11.8	8.0
Up to 210 days	8.0	6.0	4.7	3.0	6.3	4.5
Up to 240 days	1.1	3.0	3.1	2.0	2.1	2.5
Up to 270 days	2.1	7.0	.5	11.0	1.3	9.0
Up to 300 days	1.1		.5		.8	
Don't know	39.9	55.0	42.5	49.0	41.2	52.0
Number of women	188	100	193	100	381	200

Table 8: Percentage distribution of women by receipt and consumption IFA Tablet

Receipt and consumption of IFA Tablet	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Not received		24.0		10.0		17.0
Mode of distribution						
Blister pack/strip	87.9	88.2	97.5	66.7	93.4	76.5
Loose	6.9	10.5	.6	33.3	3.3	22.9
Others	5.2	1.3	1.9		3.3	.6
N	**116**	**76**	**157**	**90**	**273**	**166**
Women received 30 Tab. per trip		56.6		51.1		53.6
N		76		90		166
Source of IFA Table						
Own Home	13.9	44.7	12.7	33.3	13.2	38.6
Other's home		3.9		4.4		4.2
Medical College Hospital			3.2	5.6	1.8	3.0
FWC		26.3		41.1		34.3
UHC	10.4	17.1	11.5	22.2	11.0	19.9
Satellite clinic/EPI centre	2.6	1.3	0.6	27.8	1.5	15.7
MCWC	0.9		23.6		14.0	
Upazila Health and Family welfare Centre (UHFWC)	7.0		40.1		26.1	
Community Clinic (CC)	0.9	72.6	22.9	100.0	13.6	97.0
NGO Clinic	13.0	1.3	4.5	8.9	8.1	5.4
Private clinic/ Hospital	2.6	23.7		14.4	1.1	18.7
Other						
Sadar Hospital		3.9		6.7		5.4
Pharmacy	23.5	96.1	19.7	32.2	21.3	61.4
Unqualified Doctor			0.6		0.4	
FWA	1.7		1.9		1.8	
Nutrition Centre	29.6		0.6		12.9	
Duration of IFA Tablet intake						
More than 270 days	4.3		1.3	1.2	2.6	0.6
270 days	0.9				0.4	
Less than 270 days	94.8	100.0	98.7	98.8	97.1	99.4
Reasons for not taking all Tablet						
Side Effects		10.0		17.0		13.5
Forgot to take the tablets		28.0		18.0		23.0
Lost the packet		2.0				1.0
Did not like the taste		4.0		4.0		4.0
Family/husband opposed		1.0		1.0		1.0
Feared to take pill				1.0		.5
delivered baby		2.0		3.0		2.5
not taking on purpose				1.0		.5
I am fed up because I only delivered girl baby, so, I didn't take				1.0		.5
Others (specify)				1.0		.5
NA		53.0		53.0		53.0
Total		100.0		100.0		100.0
Number of women		100		100		200
Received of IFA tablet						
% women received any IFA tab	32.5	76.0	68.5	90.0	50.5	83.0
% women received at least 30 tab @ in the last visit	26.5	65.0	49.5	79.0	38.0	72.0
% women received at least 100 @ tab in the last visit	16.5	19.0	20.0	22.0	18.3	22.5
% women received at least 270 tab @ in the last visit	2.0		-	1.1	1.0	0.5
Number of women consumed IFA Tablet						
1-90 tablet	36.0	59.0	49.5	65.0	42.8	62.0
91-180 tablet	13.5	15.0	25.0	18.0	19.3	16.5
181-270 tablet	6.0	1.0	3.0	2.0	4.5	1.5
More 270 tablet	2.5		1.0	1.0	1.8	0.5
NR	42.0	25.0	21.5	14.0	31.8	19.5
Number of women	200	100	200	100	400	200

Table 9: IFA tablets received and consumed during pregnancy

Receipt and consumption of IFA Tablet	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Average number of IFA Tablet consumed per trip						
Average number of IFA Tablet not consumed per trip		11.5		15.8		13.7
Average Total number of IFA tablets consumed during pregnancy		20.7		23.8		22.3

Table 10: Percentage distribution of women by experience of side-effect and treatment seeking behavior

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
No side-effect	85.3	77.0	72.0	63.0	77.7	70.0
Type of side-effects of intake of IFA						
Constipation		21.7		8.1		13.3
Dizziness		21.7		10.8		15.0
Vomiting		17.4		29.7		25.0
Nausia/vomiting tendency		26.1		21.6		23.3
Black coloured stool		39.1		48.6		45.0
Gastric upset		26.1		37.8		33.3
Other						
Sought treatment from health provider		39.1		62.2		53.3
Type of type health provider						
Qualified Doctor		44.4		21.7		28.1
SACMO						
FWV		11.1		13.0		12.5
FPI						
FWA		22.2		34.8		31.3
MA				8.7		6.3
HI		11.1				3.1
AHI						
HA				21.7		15.6
CHCP		11.1		13.0		12.5
Nurse				4.3		3.1
private clinic		11.1		4.3		6.3
NGO worker				4.3		3.1
Other		11.1		4.3		6.3
Drink plenty of water		88.9		87.0		87.5
Consumption of leafy vegetable		88.9		65.2		71.9
Consumption of fruits		33.3		30.4		31.3
No advice		11.1				3.1
suggested to taking tablet for gastric				4.3		3.1
suggested to taking vitamin				4.3		3.1
Other				4.3		3.1
Can't remember						
Side-effect resolved by HA or FWA		11.1		39.1		31.3
Number of women		**9**		**23**		**32**
Received medicine other than IFA during last pregnancy		62.0		68.0		65.0
Type of medicine						
Can't remember/missing						
Total						
Number of women		100		100		200

Use of IEC and BCC materials during consultation or counseling

Table 11: Percentage distribution of women by experience of side-effect and treatment seeking behavior

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
IEC/BCC material shown during consultation/counseling	1.9	39.0	4.5	49.0	3.3	44.0
Type of IEC/BCC material used during consultation/counseling *(multiple response)*						
Festoon		89.7		77.6		83.0
Brushier		25.6		53.1		40.9
Other						
Banner	50.0		-		50.0	
Leaflet	50.0		-		50.0	
Number of women	2	39	-	49	2	88

Postnatal Care (PNC)

Table 12: Percentage distribution of women by number of PNC visits and reception of IFA tablet

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
PNC received from service provider	45.7	55.0	37.5	49.0	44.2	52.0
Service provider visited the house of women during post natal period	33.0	32.0	40.0	33.0	36.5	32.5
Number of women	**200**	**100**	**200**	**100**	**400**	**200**
Type of service provider visited *(multiple response)*						
Qualified Doctor (MBBS)	65.2		58.8		61.6	
Nurse/Midwife/Paramedic	36.4	3.1	81.3		61.0	1.5
FWV	1.5	3.1	7.5	3.0	4.8	3.1
SACMO		3.1				1.5
FWA	1.5	37.5		42.4	0.7	40.0
HA		28.1	2.5	12.1	1.4	20.0
TTBA			4.0		2.7	
TRA		6.3				3.1
Unqualified doctor	1.5	3.1		3.0	0.7	3.1
NGO worker		46.9	1.3	42.4	0.7	44.6
CSBA	6.1	3.1	2.5	6.1	4.1	4.6
Other						
Number of women	**66**	**32**	**80**	**33**	**146**	**65**

Postnatal counseling for ingestion of IFA Tablet

Table 13: Percentage of women received counseling/instruction from the service provider for ingestion of IFA Tablet

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Received instruction to take IFA during PNC by the service provider	48.5	56.3	25.0	51.5	35.6	53.8
Type of instruction received during counseling *(multiple response)*						
Benefit		94.4		94.1		94.3
Doses		33.3		47.1		40.0
Side-effect				11.8		5.7
Other						
Number of Women		**18**		**17**		**35**

Current use and future intension of IFA supplement

Table 14: Percentage distribution of women by current and future intention of using IFA supplement

Number of PNC visits	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Currently using IFA Tablet		18.0		18.0		18.0
Average number of IFA Tablet consumed after birth		35.4		36.0		35.7
Reasons for not taking IFA after birth						
Nobody told		64.6		54.9		59.8
Not required now		19.5		30.5		25.0
Suggested by service provider				2.4		1.2
I can't tolerate IFA tablet		14.6		7.3		11.0
Do not get help to bring medicine				2.4		1.2
bad test		1.2				.6
baby was born				2.4		1.2
Number of Women		**82**		**82**		**164**
Reasons for taking IFA after birth						
Nobody told				5.6		2.8
Not required now				5.6		2.8
Suggested by service provider		94.4		61.1		77.8
I can't tolerate IFA tablet				5.6		2.8
it is good to take				11.1		5.6
my relative are suggest me		5.6				2.8
baby will get breast milk				5.6		2.8
Others (Specify)				5.6		2.8
Number of Women		**18**		**18**		**36**
Intend to consume IFA Tablet during the pregnancy if conceive again						
Yes		85.0		87.0		86.0
No		13.0		6.0		9.5
On permanent PF method				5.0		2.5
Don't know		2.0		2.0		2.0
Missing						
Others						
Number of Women		100		100		200
Not necessary		30.8		33.3		31.6
Can't tolerate IFA Tab.		38.5		33.3		36.8
Do not want children		15.4		33.3		21.1
I will take homeopath		7.7				5.3
Other		7.7				5.3
Number of Women		13		6		16
Intend to consume IFA Tablet during post partum period if conceive again						
Yes		82.0		88.0		85.0
Reasons for not like to consume IFA Tablet if conceive again						
Not necessary		61.1		66.7		63.3
Can't tolerate IFA Tab.		27.8		25.0		26.7
3		5.6				3.3
4				8.3		3.3
Other		5.6				3.3
Total		100.0		100.0		100.0
Number of Women		18		12		30

Table 15: Percentage distribution of Health Worker Age, Designation, Education, Currently posted, Duration of Working in this Health Center

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Age (in year) (Q 102)						
21-30	20.9	47.5	14.6	50.8	17.9	49.2
31-40	16.3	19.7	22.0	11.9	19.0	15.8
41-50	39.5	18.0	43.9	18.6	41.7	18.3
51-60	23.3	14.8	19.5	18.6	21.4	16.7
Mean Age	41.6	35.4	41.8	36.1	41.7	35.8
N	**43**	**61**	**41**	**59**	**84**	**120**
Designation (Q103)						
SACMO	93		-		4.8	
FWV	9.3		12.2		10.7	
FPI	4.7		9.8		7.1	
FWA	3.6	32.8	39.0	33.9	35.7	33.3
MA	7.0		4.9		6.0	
HI	2.3		-		26.2	
AHI	2.3		4.9		3.6	
HA	27.9	32.8	24.4	32.2	1.2	33.3
Nurse	2.3		4.9		3.6	
M/O	2.3		-		1.2	
CHCP		34.4		32.2		33.3
N	**43**	**61**	**41**	**59**	**84**	**120**
Educational Qualification (Q104)						
SSC	34.9	23.0	22.0	25.4	28.6	24.2
HSC	32.6	49.2	29.3	33.9	31.0	41.7
Hons.	20.9	16.4	29.3	20.3	25.0	18.3
Masters	9.3	11.5	9.8	20.3	9.5	15.8
Others	2.3		9.8		6.0	
N	**43**	**61**	**41**	**59**	**84**	**120**
Currently Posted in (Q 105)						
UHC	39.5		9.8		25.0	
MCWC	-		7.3		3.6	
UH&FWC	60.5		9.8		35.7	
CC	-	34.4	-	32.8	-	33.3
Field Worker	-	65.6	73.2	67.2	35.7	66.7
Others	-		-			
Satellite clinic						
EPI Outreach Site						
N	**43**	**61**	**41**	**59**	**84**	**120**
Average duration of health workers working in this place (Q 106)						
Up to 5 years	32.6	86.9	43.9	81.4	38.1	84.2
5-10 years	16.3	11.5	9.8	10.2	13.1	10.8
10-15 years	4.7	1.6	2.4	6.8	3.6	4.2
15-20 years	11.6		17.1		14.3	
20-25 years	20.9		14.6	1.7	17.9	0.8
25-30 years	-		-		-	
More than 30 years	14.0		12.2		13.1	
Average	14.6	3.2	12.8	4.5	13.8	3.8
N	**43**	**61**	**41**	**59**	**84**	**120**

Table 16: average number of eligible married women, women of reproductive age, and pregnant women serving by the HWs

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Household						
Mean	4535.67	1643.85	2336.26	1478.77	3403.62	1558.25
Median	2230.00	1398.00	1429.00	1465.50	1796.50	1430.00
Number	33	52	35	56	68	108
Population						
Mean	22887.74	6990.14	11527.31	6719.81	17125.20	6856.13
Median	11223.50	6280.00	7290.00	6737.00	8554.00	6732.00
Number	34	59	35	58	69	117
Women at reproductive age						
Mean	5356.25	1743.55	2396.18	1697.89	3853.45	1720.04
Median	2018.00	1114.00	1527.00	1299.00	1527.00	1220.00
Number	32	33	33	35	65	68
Eligible married women						
Mean		1077.92		1244.93		1169.78
Median		772.00		1103.00		953.50
Number		36		44		80
Children less than 5 years						
Mean	1518.86	934.37	905.91	695.52	1221.14	808.08
Median	626.50	924.00	615.00	724.50	619.50	775.00
Number	36	41	34	46	70	87
Pregnant women						
Mean	517.28	42.89	80.59	45.60	1991.80	44.25
Median	96.50	41.00	36.00	37.00	872.50	39.00
Number	36	55	34	55	82	110

Table 17: Distribution of HWs IFA related training received

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Training Received						
SACMO						
FWV						
FPI						
HI						
AHI						
FWA	30.2	32.8	39.0	32.1	34.6	32.5
HA	25.6	34.5	24.4	35.7	25.0	35.1
CHCP	-	32.8	-	32.1	-	32.5
Total	**43**	**58**	**41**	**56**	**84**	**114**
Refreshers training received						
SACMO						
FWV						
FPI						
HI						
AHI						
FWA	14.0	40.0	31.7	32.1	22.6	36.8
HA	11.6	30.0	14.6	39.3	13.1	33.8
CHCP	-	30.0	-	28.6	-	29.4
Total	**43**	**40**	**41**	**28**	**84**	**68**

Table 18: Percentage distribution of HWs by knowledge about anemia (DCI-2, Q=401-410)

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Ever heard about anaemia	65.0	100.0	81.5	100.0	73.3	100.0
Manifestation of Anaemia*(multiple response)*						
Weakness	100.0	85.2	95.2	89.8	97.6	87.5
Dizziness	32.6	32.8	26.8	47.5	29.8	40.0
Fatigue	97.7	47.5	17.1	25.4	58.3	36.7
Vomiting tendency	2.3	8.2	41.5	11.9	21.4	10.0
Poor physical work capacity		11.5		13.6		12.5
Pallor of eye/hand/tongue/body/face		65.6		66.1		65.8
convulsion		1.6		3.4		2.5
Oedema(accumulation of fluid in body				3.4		1.7
Blurring of vision		1.6		3.4		2.5
Breathlessness		1.6				0.8
Others	58.0		100.0		82.0	
Consequence of Anaemia						
Increases maternal iron deficiency		32.8		40.7		36.7
Increased risk of low birth weight baby		70.5		66.1		68.3
Increased risk of maternal death in case of severe anaemia		75.4		76.3		75.8
Impaired intellectual development				10.2		5.0
convulsion		8.2				4.2
blood pressure		1.6				.8
deficiency of immunity		3.3				1.7
abortion/miscarriage		1.6				.8
Born of physically challenged baby		1.6		3.4		2.5
Tetanus				3.4		1.7
Prevention of anaemia*(multiple response)*						
Intake of Iron Tablet	95.3	100.0	95.1	100.0	95.2	100.0
Intake of Iron containing food	100.0	83.6	90.2	93.2	95.2	88.3
Others	20.9		43.9		32.1	
Don't know						
Doses of Iron tablet per day						
1	23.3	98.4	48.8	94.9	35.7	96.7
2	76.7	4.9	46.3	5.1	61.9	5.0
3			4.9	1.7	2.4	0.8
Others						
Don't know						
Total number of IFA tablet to be consumed during pregnancy						
270 tablets (recommended)	2.3	91.8	2.4	71.2	2.4	81.7
Don't know	16.3	8.2		27.1	8.3	17.5
Other	81.4		97.6	1.7	89.3	0.8
N	43	61	41	59	84	120
Total number of IFA tablet to be consumed after delivery						
90 tablets (recommended)		100.0		78.0		89.2
Don't know						
Other				22.0		10.8
N		61		59		120
From which month of pregnancy a mother should take IFA tablet						
1st month		95.1		76.3		85.8
2nd month	2.3			3.4	1.2	1.7
3rd month	18.6	3.3	24.4	11.9	21.4	7.5
4th month or later	74.4	1.6	75.6	8.5	75.0	5.0
Don't know	4.7				2.4	
N	43	61	41	59	84	120
Benefit of IFA *multiple response)*						
Prevents low birth weight baby		68.9		81.4		75.0
Prevents maternal anemia at term		75.4		69.5		72.5
Prevents maternal iron deficiency at term		42.6		35.6		39.2
development of intellectual		1.6		3.4		2.5

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
check abortion		1.6				.8
sufficient breast milk		1.6		5.1		3.3
Prevent anaemia	4.7				2.6	
Gives Energy	97.7		81.8		90.8	
Cognitivity development	60.5		6.1		36.8	
Others	25.6		39.4		31.6	
Side Effect of Iron tablet *(multiple response)*						
Constipation	88.4	73.8	65.9	47.5	77.4	60.8
Dizziness	32.6	13.1	29.3	15.3	31.0	14.2
Black Stool	93.0	82.0	65.9	93.2	79.8	87.5
Gastric problem		45.9		78.0		61.7
Nausea		4.9		10.2		7.5
Loss of appetite		1.6				.8
Others	37.2		61.0		48.8	
Don't know	2.3		2.4		2.4	
N	43	61	41	59	84	120
Awareness about methods to overcome the side effects *(multiple response)*						
Take the tablet after dinner before sleeping		19.7		23.7		21.7
Take the tablet after a meal		47.5		47.5		47.5
Drink lots of water through the day		82.0		76.3		79.2
take sufficient rest				1.7		.8
take one tablet in every alternative day		1.6		3.4		2.5
Suggest to take antacid tablet				1.7		.8
Suggest eating much vegetables		14.8		15.3		15.0
husk of esupgul		1.6				.8
take much vitamin		1.6				.8
take tablet at the mid of the meal				1.7		.8
Drinking more water	95.3		85.4		90.5	
Taking leafy vegetables	95.3		75.6		85.7	
Taking fruits	67.4		19.5		44.0	
Don't know value label	4.7		2.4		3.6	
Others			41.5		20.2	
Number of women	**43**	**61**	**41**	**59**	**84**	**120**

Table 19: Service delivery

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Provide Iron Tablet to pregnant women						
SACMO						
FWV						
FPI						
FWA		32.8		33.9		33.3
HI						
AHI						
HA		32.8		33.9		33.3
CHCP		34.4		32.2		33.3
Others						
Number of Tablet Provided each time in the ANC period						
30 tablets (recommended)		100.0		98.3		99.2
Don’t know						
Other				1.7		0.8
Average		30.0		29.6		29.8
N		61		59		120
Re-supply IFA tablet to the pregnant women						
Yes		98.4		98.3		98.3
Provide Iron Tablet to post partum women						
SACMO						
FWV						

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
FPI						
FWA		33.3		34.5		33.9
HI						
AHI						
HA		31.7		32.8		32.2
CHCP		35.0		32.8		33.9
Number of Tablet Provided each time to post partum women						
30 tablets (recommended)		100.0		93.2		96.7
Don't know						
Other				6.8		3.3
Average		30.0		30.3		30.1
Re-supply IFA tablet to the post partum women						
Yes		100.0		100.0		100.0

Table 20: Percentage distribution of health workers by types of service, monitoring and supervision

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Provide Domiciliary Service		67.2		69.5		68.3
Frequency of home visit						
2-3 times in a week		14.6		22.0		18.3
Once in a week		29.3		19.5		24.4
Once in a month		53.7		51.2		52.4
After two month		2.4		7.3		4.9
During home visit type of service provided *(multiple response)*						
Check utilization of IFA		80.5		68.3		74.4
Counseling on IFA		65.9		68.3		67.1
Resupply IFA tablets		31.7		4.9		18.3
ANC counseling		48.8		48.8		48.8
Do nothing						
Monitoring IFA utilization among pregnant women						
Yes		100.0		91.5		95.8
Contact point of monitoring the compliance/utilization of IFA tablets*(multiple response)*						
Home visit		57.4		59.3		58.3
Mothers meeting		16.4		14.8		15.7
At health Facility during ANC visit		68.9		53.7		61.7
EPI sessions		27.9		16.7		22.6
Mode of monitoring*(multiple response)*						
Ask pregnant women		96.7		98.1		97.4
Check empty blisters/sachets		42.6		24.1		33.9
Check with family members/caregivers		29.5		24.1		27.0
Problem solving/counseling to continue		23.0		16.7		20.0
Other						
HW developed plans to check utilization of IFA tablets by pregnant women						
Yes		62.3		55.9		59.2

Table 21: Percentage distribution of health workers by mode of counseling and use of IEC

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
% of HW who counsel PWs on anemia and its consequences		100.0		98.3		99.2
% of HW who counsel PWs on Dosage, side effects and benefits of IFA		95.1		87.9		91.6
% of HW who counsel PW on regular consumption of IFA		100.0		98.3		99.2
Place where HWs counsel PWs on IFA *(multiple response)*						
Home visits		59.0		61.4		60.2
Mothers meeting		23.0		21.1		22.0
At health facility during ANC visit		70.5		63.2		66.9
EPIs sessions		37.7		43.9		40.7
Others						
% of HW who have plan to counsel PWs on IFA		62.3		67.2		64.7
% of HW who conduct group counseling session in previous month on IFA		68.9		79.3		73.9
Place of counseling session in previous month						
EPI sessions		42.9		39.1		40.9
ANC sessions		40.5		28.3		34.1
Home visit		16.7		32.6		25.0
% of HW who use IEC/BCC material for counseling		75.4		84.5		79.8
Type of communication materials displayed *(multiple response)*						
Festoon hanging on wall		78.3		79.6		78.9
Brochure		43.5		49.0		46.3
Leaflet		10.9		16.3		13.7
Flipchart	50.0	13.0	100.0	18.4	66.7	15.8
Flashcard		2.2		4.1		3.2
Pictorial fan with message		4.3				2.1
Poster	50.0				33.3	
% of Health facility where IEC/BCC materials displayed		96.7		96.6		96.6
Type of communication materials displayed in health facility *(multiple response)*						
Festoon hanging on wall		94.9		92.9		93.9
Brochure		30.5		21.4		26.1
Flipchart		11.9		3.6		7.8
Leaflet		8.5		17.9		13.0
Leaflet with five danger singe				1.8		.9
According to HW effective IEC/BCC material *(multiple response)*						
Festoon hanging on wall		60.7		58.6		59.7
Brochure		9.8		8.6		9.2
Flipchart		11.5		19.0		15.1
flash card		9.8		6.9		8.4
leaflet		16.4		12.1		14.3
Leaflet with five danger singe				1.7		0.8
Pictorial fan with message				1.7		0.8
Place where IPC tools used						
Mothers meeting		27.9		20.7		24.4
Home visits		24.6		25.9		25.2
Follow up visit		6.6		5.2		5.9
Health Center		41.0		48.3		44.5

Table 22: Status of supply and stock situation

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
% of HW having adequate stock of IFA(at least 600 tabs each for 20 PW/month)		86.9		76.3		81.7
N		**61**		**59**		**120**
IFA supplements received at the health facility for distribution in the previous month						
1000+		93.8		100.0		97.2
800-999		6.2				2.8
600-799						
Less than 600						
Average		3137.50		2787.44		2945.21
N		**32**		**39**		**71**
IFA supplements distributed in the previous month						
1000+		45.9		60.8		52.7
800-999		26.2				14.3
600-799		6.6		15.7		10.7
Less than 600		21.3		23.5		22.3
Average		1141.75		1191.18		1164.26
N		61		31		112
% of health facility where IFA stocked out previous month		90.2		83.1		86.3
N		**61**		**59**		**120**
How many days HW attended at CC last week		3.6		3.7		3.6
N		**56**		**59**		**115**

Table 23: Recoding and reporting of IFA

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
% of HF/CC where reporting forms and registers are always available		96.7		91.5		94.2
Average number of PW enrolled for the for the first time for ANC at HF/CC		5.5		4.8		5.2
Average number of pregnant women provided with IFA supplements who visited the CC in the last month		15.8		14.4		15.2
Complete and correct recoding in the register (% of positive response)						
Pregnant women enrolled for first time for ANC		90.2		94.9		92.5
Women seeking ANC counseling		90.2		91.5		90.8
Delivery		1.7		1.7		1.7
Whether monthly report is submitted timely		98.4		98.3		98.3
N		61		59		120

Table 24: Job responsibilities of the supervisors

	Districts				Total	
	Narsingdi		Satkhira			
Job responsibilities *(multiple response) Q=1*	%	N	%	N	%	N
Supervision	40.0	20	50.0	20	45.0	40
Service providing	100.00		100.00		100.00	
Counseling	35.0		25.0		30.0	
Monitoring	60.0		100.0		80.0	
Distribution	50.0		55.0		52.5	
HWs report to supervisor	Average	N	Average	N	Average	N
Average number of HW report to supervisor	7.8	10	11.0	10	9.5	20

Table 25: Knowledge and Skills of the supervisors about anaemia

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Average Number of HWs reportable to each Supervisor		7.89		11.00		9.53
N		**10**		**10**		**20**
% of supervisor with knowledge about anaemia		100.0		100.0		100.0
N		**20**		**20**		**40**
Symptoms of anaemia*(multiple response)*						
Weakness		80.0		100.0		90.0
Dizziness		30.0		50.0		40.0
Fatigue		40.0		45.0		42.5
Vomiting tendency		10.0		5.0		7.5
Poor physical work capacity		35.0		20.0		27.5
Pallor of conjunctive, face and palm		40.0		40.0		40.0
Vertigo		5.0		00.0		2.5
Blurred eye		5.0		00.0		2.5
N		**20**		**20**		**40**
Understanding on consequences of anemia*(multiple response)*						
Increases maternal iron deficiency		40.0		45.0		42.5
Increased risk of low birth weight baby		80.0		65.0		72.5
Increased risk of maternal death in case of severe anaemia		85.0		70.0		77.5
convulsion		10.0		00.0		5.0
Eclampsia		5.0		00.0		2.5
postpartum hemorrhage		5.0		00.0		2.5
decrease ability to do work		00.0		5.0		2.5
N		**20**		**20**		**40**

Table 26: Monitoring and supervision of the supervisors

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
Frequency of the supervision/monitoring						
2-3 times a week		25.0		25.0		25.0
Once a Week		10.0		15.0		12.5
Fortnightly				10.0		5.0
Monthly						
Not Applicable		65.0		50.0		57.5
Never						
N		**20**		**20**		**40**
Way of supervision/monitoring						
Comparing the number of monthly home visits conducted with the number expected		71.4		80.0		76.5
By checking their register entries for the last month		28.6		20.0		23.5
N		7		10		17
Using checklist for monitoring visit by Supervisors						
Yes		71.4		90.0		82.4
N		**7**		**10**		**17**
Domiciliary Service						
Conduct home visit		100.0		90.0		94.1
N		**7**		**10**		**17**
During home visit type of service provided						
Check EPI cards		14.3		11.1		12.5
Monitoring whether HW are working properly		85.7		88.9		87.5
Check EPI whether 0 to 3-year old children are immunized		85.7		66.7		75.0
Check pregnant registration list		14.3		11.1		12.5
Household visit monitoring		28.6		11.1		18.8
Monitoring BCC IEC work done by health workers		14.3				6.3
Service delivery monitoring		14.3				6.3
Monitoring IFA tablet distribution		57.1		22.2		37.5
Monitoring family planning activities		14.3		11.1		12.5
Find Arsenicosis				22.2		12.5
Counseling on child diarrhea and pnewnomia				11.1		6.3
N		**7**		**9**		**16**
% of supervisor use of BCC materials during house visit or supervision of staff		42.9		55.6		50.0
N		**7**		**9**		**16**
Types of materials for BCC/IEC use by supervisor (multiple response)						
Festoon (hanging on the wall)		33.3		40.0		37.5
Brochure						
Leaflet		66.7		40.0		50.0
Flip chart				20.0		12.5
N		**3**		**5**		**8**
% of supervisor counsel PWs / post partum women to take the full course of IFA tablets		100.0		100.0		100.0
N		**20**		**20**		**40**
Receiving HMIS/monitoring reports						
Timely but not complete						
Complete but not timely						
Timely and complete		40.0		50.0		45.0
Don't get reports		5.0		10.0		7.5
Not Applicable		55.0		40.0		47.5
N		**20**		**20**		**40**
% of supervisor give feedback of monitoring visits to your staff		35.0		65.0		50.0
N		**20**		**20**		**40**
% of Supervisor discuss the key observations from of monitoring visits in the monthly meetings at upazilla level		45.0		55.0		50.0
N		**20**		**20**		**40**

Table 27: Training on Anaemia and IFA supplementation

	Districts				Total	
	Narsingdi		Satkhira			
	Baseline	Midline	Baseline	Midline	Baseline	Midline
% of Supervisor received any training on IFA		80.0		95.0		87.5
N		**20**		**20**		**40**
% of supervisor feel further training on IFA is necessary		75.0		94.7		85.7
N		**16**		**19**		**35**
% of supervisor desire further training		100.0		100.0		100.0
N		**12**		**18**		**30**
Training received						
2010						
2011		12.5				5.7
2012		25.0				11.4
2013		62.5		100.0		82.9
N		**16**		**19**		**35**

Annex 2:
Data Collection Instruments

Rapid Midline Assessment of the Project "Strengthening the Iron and Folic Acid Supplementation (IFA) Program to reduce Iron Deficiency Anaemia among Pregnant Women in Bangladesh"

SEMI-STRUCTURED QUESTIONNAIRE FOR RECENTLY DELIVERED MOTHER (Mothers with 6 months baby)

Identification No. of the Schedule ☐☐☐

General Information

Name of the Division: DHAKA 1, KHULNA 2 ☐ Name of District : NARSINGDI 1, SATKHIRA 2 ☐ Name of the Upazilla : _____ ☐		Name of the Union/ Ward ☐☐☐	
Name of the Cluster _____ ☐☐☐		Name of the Village/ Mohallah/ Block _____ ☐☐☐	
Name of head of the HH	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐		
Name of the Respondent	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐		
Name of Interviewer	_____ ☐☐	Sign of interviewer	_____
Name Of Supervisor	_____ ☐☐	Sign of supervisor	_____
Name of data Editor	_____ ☐☐	Sign of data editor	_____
Name of data entry operator	_____ ☐☐	Sign of data entry operator	_____
Date of interview	d d m m y y ☐☐☐☐☐☐	Start Time of interview	_____/_____ AM/ PM
Form completion status	Completed……..1 Incomplete……..2 Refused……3		

Introduction and Consent

As-salamualikum/ Adaab,

My name is _____. Currently I am involved in a survey named "Rapid Midline assessment for coverage of IFA Supplementation Program for Pregnant Women" which is implemented by _____with financial support from Micronutrient Initiative. In order to reduce anaemia among pregnant and lactating women we are going to evaluate knowledge, perception, practice, usefulness and compliance regarding Iron and Folic Acid tablet. I will ask you a few questions on maternal health and the services taken during pregnancy. This interview will take 15 to 20 minutes. Your questions and responses are confidential, and your name will never be used with the information you provide.

This study is completely voluntary. You may refuse to answer any question at any time during the discussion. You may end your participation at any time during the discussion. After this, I hope you will participate in this study as your opinion is very much important for this survey.

May I now proceed with this interview?

Interviewer's/ Facilitator's Signature _____

Date _____/_____/_____

The respondent agreed to proceed..... [1] ▼ The respondent refused to proceed..... END [2]

A. About Last pregnancy

No.	Questions & Filters	Coding Categories	Code	Skip
1	How old are you?	Age in completed years_____		
2	What was your date of last delivery?	Date of last delivery_____dd_____mm____yyyy No. of months post partum_____		
	Now I will ask about your last pregnancy details			
3	Did you receive any antenatal care during your last pregnancy ?	Yes No	1 2 →	**10**
4	Month of pregnancy when first checkup was done/ received / registered for ANC **INS: Code '00' if not done/received any checkup**	Month_____		
5	Where did you receive ANC for this pregnancy? (Multiple responses possible)	Own home Other home Medical college Family welfare centre (UH&FWC) Thana health complex Sat. clinic/ EPI outreach Maternal and child welfare centre Community clinic NGO clinic Private clinic/ hospital Others (Specify)_____	1 2 3 4 5 6 7 8 9 10 97	
6	How many times did you receive ANC?	No. of times_____		
7	As part of your antenatal care during this pregnancy, were you given any IFA tablets?	Yes No	1 2	
8	Did any health worker visit you during this pregnancy?	Yes No	1 2 →	**10**
9	If yes, in which trimester of pregnancy did the health worker visit? Multiple Responses Possible.	First (1-3 months) Second (4-6 months) Third (7-9 months)	1 2 3	

B. Knowledge about Anaemia and IFA tablets

10	Have you ever heard about anaemia?	Yes No	1 2	 →13
11	What are the symptoms of anaemia? (Multiple responses possible)	Weakness Dizziness Fatigue Vomiting tendency Poor physical work capacity Others (Specify)_____ Don't know	1 2 3 4 5 97 99	
12	How anemia can be prevented? (Multiple responses possible) (Multiple responses possible)	By taking iron tablet By taking food which contains iron Others (specify) _____ Don't know	1 2 97 99	
13	Are you aware of any benefits of IFA? Multiple Responses Possible (Multiple responses possible)	prevents anemia replenishes iron lost for the growing foetus Others, specify_____ Don't know	1 2 97 99	
14	Do you know how many tablets per day has to be taken? (1 tablet per day throughout pregnancy)	1 tablet daily 2 tablet daily 3 tablet daily Don't Know	1 2 3 97	
15	Do you know for how many days during pregnancy you should take IFA tablets?	_____days Don't Know	 99	

C. Receipt and consumption of IFA tablets

16 **Instructions**

1. Please show IFA tablets/strips to the respondent when asking the questions. Make sure that a woman understands and recalls whether she received these tablets.
2. Please start by asking in what form, did she get the tablets and how many tablets/strip of tablets she received the first time. If she indicates this in no. of strips note down this number, and then note the corresponding number of tablets. Confirm that the woman understands "one strip" as equivalent to a strip of 10 tablets each.
3. Then ask, from where she got these tablets
4. Then ask whether she consumed all the tablets she got, or if there were any left over. Try and estimate this for each batch of tablet received. If the answer is in terms of tablets not consumed, note the number, and subtract from received tablets to get the no. of tablets consumed.
5. Repeat steps 2-3-4 for the next time she received the tablets until the end of pregnancy.
6. If the woman finds it difficult to recall how many tablets she consumed or did not consume each time, ask her how many tablets/strips were not consumed until the end of pregnancy, and write this in 'Total' column.

Don't Know /Can't Say/ Don't Remember = 999

	Received	No. of Batches										
		Last	**2nd last**	**3rd last**	**4th last**	**5th last**	**6th last**	**7th last**	**8th last**	**9th last**	**10th last**	**Total**
16.1	In what form did you get the tablets? Blister pack/ strip…….1 Loose tablets wrapped in paper…….2 Others (Specify)_____3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
16.2	How many strips of IFA tablets did you get ? No. of tablets (10 in 1 strip)											
16.3	From whom or where did you receive it? wn home……1 Other home……2 Medical college……3 Family welfare centre……4 Thana health complex……5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5		1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

	Sat. clinic/ EPI outreach…….6 Maternal and child welfare centre…….7 Community clinic……8 NGO clinic……..9 Private clinic / hospital…..10 Others (Specify)_____11	6 7 8 9 10 11	6 7 8 9 10 11	6 7 8 9 10 11	6 7 8 9 10 11		6 7 8 9 10 11	6 7 8 9 10 11	6 7 8 9 10 11	6 7 8 9 10 11	6 7 8 9 10 11	
	Consumed each time											
16.4	How many tablets did you consume ?											
16.5	How many tablets you did not consume?											

16.6	Total received during the last pregnancy	No._____		
16.7	Total consumed during the last pregnancy	No._____		
17	(If not consumed all tablets, ask) Why did you not consume all the tablets?	Side Effects Forgot to take the tablets Did not know about need/ benefits Advised to discontinue Lost the packet Did not like the taste Family/husband opposed Gave tablets to someone else Others (specify)_____	1 2 3 4 5 6 7 8 97	
18	Did you have any side effects after consuming them?	Yes No	1 2	→ **24**
19	If yes, What kind of side effects did you have? (Multiple responses possible)	Constipation Dizziness Vomiting Nausea Black stools Gastric problem Others specify_____	1 2 3 4 5 6 97	
20	Did you consult any doctor or health worker regarding the side effects ?	Yes No	1 2	→ **24**
21	If yes, Whom did you consult? (Multiple responses possible)	Doctor SACMO FWV FPI FWA MA HI AHI HA CHCP Nurse Others (Specify)_____	1 2 3 4 5 6 7 8 10 11 12 97	
22	What was recommended by the doctor/ health worker? (Multiple responses possible)	Drinking more water Taking leafy vegetable Taking fruits Didn't tell anything Others (Specify)_____ Don't know	1 2 3 4 97 99	
23	Was the FWA/HA able to assist in solving the side effects? Yes/No	Yes No Not applicable	1 2 99	
24	Did you take any other drug other than IFA during your last pregnancy (name of the child)?	Yes No I Can not remember	1 2	→ **26**
25	What drug did you take?	_____ I Can not remember	98	

D. IEC/ BCC

26	During counseling did the service provider show any IEC/BCC material on IFA supplementation?	Yes No	1 2 →	 28
27	What type of IEC /BCC materials did the service provider show you? (Multiple responses possible)	Festoon wall hanging Brochure Other (Specify)_____	1 2 97	

E. PNC visit

28	Did the service provider tell you about Post Natal Care (PNC) visit?	Yes No	1 2	
29	Did anyone come to visit you post delivery ?	Yes No	1 2	 33
30	Who visited?	Nurse/Midwife/Paramedic Family Welfare Visitor (FWV) Medical Assistant/SACMO(MA/SACMO) Family Welfare Assistant (FWA) Health Assistant (HA) Trained Traditional Birth Attendant (TTBA) Untrained TBA (TBA) Unqualified Doctor NGO Worker CSBA Others (Specify) _____	1 → 2 3 4 5 6 7 8 9 10 97	
31	Did she counsel you on taking IFA supplements after delivery?	Yes No	1 2 →	 33
32	If yes did s/he counsel on…?	Benefits Dosage Side effects Others Specify_____	1 2 3 97	
33	Are you consuming any IFA tablets now ?	Yes No	1 2	
34	How many tablets did you consume?	No._____		
35	(If yes/ no, ask) why ?	Nobody told Not required now Suggested by service provider I can't tolerate IFA tablet Others (Specify)_____	1 2 3 4 97	
36	Do you intend to consume IFA tablets for the entire duration of your pregnancy in case, you are pregnant in future ?	Yes No	1 → 2	38
37	(If answer is no, ask) why ?	Not required I can't tolerate IFA tablet Others (Specify)_____	1 2 97	
38	Do you intend to consume IFA tablets following the delivery of the child, in case, you are pregnant in future?	Yes No	1 → 2	**End**
39	(If answer is no, ask) why?	Not required I can not tolerate IFA tablet Others (Specify)_____	1 2 3	

Thank the respondent and end the interview

Conducting a Rapid Midline Assessment of the Project "Strengthening the Iron and Folic Acid Supplementation (IFA) Program to reduce Iron Deficiency Anaemia among Pregnant Women"

SEMI-STRUCTURED QUESTIONNAIRE
FOR
Family Welfare Assistant (FWA)/Health Assistant (HA)/ Community Health Care Provider (CHCP)

Identification No. of the Schedule ☐☐☐

General Information

Name of the Division: DHAKA 1, KHULNA 2 ☐ Name of District : NARSINGDI 1, SATKHIRA 2 ☐ Name of the Upazilla : _____ ☐		Name of the Union/ Ward ☐☐☐ _____	
Name of the Cluster _____		Name of the Village/ Mohallah/ Block _____ ☐☐☐	
Name of the Respondent	☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐		
Name of Interviewer	_____ ☐☐	Sign of interviewer	_____
Name Of Supervisor	☐☐ _____	Sign of Supervisor	_____
Name of data Editor	☐☐ _____	Sign of data editor	_____
Name of data entry operator	☐☐ _____	Sign of data entry operator	_____
Date of interview	d d m m y y ☐☐☐☐☐☐	Start Time of interview	_____/_____ AM/ PM
Form completion status	Completed……..1 Incomplete……..2 Refused……3		

Introduction and Consent

As-salamualikum/ Adaab,

My name is _____. Currently I am involved in a survey named "A rapid midline assessment of IFA Supplementation Program for Pregnant Women" which is implemented by _____with financial support from Micronutrient Initiative. In order to reduce anaemia among pregnant and lactating women we are going to evaluate knowledge, perception, practice, usefulness and compliance regarding Iron and Folic Acid tablet. I will ask you a few questions on maternal health and the services taken during pregnancy. This interview will take 20 to 30 minutes. Your questions and responses are confidential, and your name will never be used with the information you provide.
This study is completely voluntary. You may refuse to answer any question at any time during the discussion. You may end your participation at any time during the discussion. After this, I hope you will participate in this study as your opinion is very much important for this survey.

May I now proceed with this interview?
Interviewer's/Facilitator's Signature _____
Date _____/_____/_____

The respondent agreed to proceed..... 1 → The respondent refused to proceed..... END 2 →

A. CHARACTERISTICS

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	
101	Please tell me your name?		
102	Age (in completed years)	☐☐ Year	
103	Designation	FWA HA CHCP	1 2 3
104	What is the highest level of education you have attained?	_____	
105	Where are you currently posted?	Upazila Health Complex (UHC) Maternal and Child welfare center(MCWC) UHFWC Satellite clinic EPI Outreach Site Community Clinic Others (Specify)_____	1 2 3 4 5 6 97
106	How long have you been working in this facility?	☐ Year ☐☐ Month	

B. CATCHMENT AREA

201	Please tell me the number of households in your catchment area	☐☐☐☐ Don't Know 99
202	What is the total population in your catchment area	☐☐☐☐☐ Don't Know 99
203	Please tell me the number of women of reproductive age in your catchment area (15-49 yrs)	☐☐☐☐ Don't Know 99
204	Please tell me the number of children under 5 years in your catchment area	☐☐☐☐ Don't Know 99
205	Please tell me the number of pregnant women in your catchment area	☐☐☐☐ Don't Know 99

C. TRAINING

301	Has the service provider received training on strengthening the IFA supplementation program by MI for pregnant women?	Yes.....1 No.....2	
302	Whether you have received any refresher training by MI?	Yes.....1 No.....2	

D. KNOWLEDGE AND AWARENESS REGARDING ANEMIA

401	Have you ever heard about anaemia?	Yes No	1 2 → **405**
402	What are the symptoms of anaemia? (Multiple responses possible)	Weakness Dizziness Fatigue Vomiting tendency Poor physical work capacity Others (Specify)_____ Don't know	1 2 3 4 97 99
403	What are the consequences of anaemia ?	Increases maternal iron deficiency Increased risk of low birth weight baby Increased risk of maternal death in case of severe anemia Any other, specify_____	1 2 3 4
404	How anaemia can be prevented? (Multiple responses possible)	Intake of iron tablet Intake of food which contain iron Others (Specify)_____ Don't know	1 2 97 99
405	Have you ever heard about iron and folic acid tablets ?	Yes No	1 2
406	Do you know how many tablets should a pregnant woman take per day? (Multiple responses possible)	1 tablet daily 2 tablets daily 3 tablets daily Others (Specify)_____ Don't know	1 2 3 97 99
407	Do you know, what is the total number of tablets a woman should take during pregnancy ?	No._____ Don't know	 99
407.1	Do you know, what is the total number of tablets a woman should take post delivery?	No._____ Don't know	 99
408	Do you know from which month of pregnancy a mother should take iron and folic acid tablet?	☐ Don't know	Month 99
409	Are you aware of benefits of consuming IFA supplements by pregnant women ? (Multiple responses possible)	Prevents low birth weight baby Prevents maternal anemia at term Prevents maternal iron deficiency at term Others (Specify)_____ Don't know	1 2 3 97 99
410	Do you know what are the side-effects of IFA supplementation? (Multiple responses possible)	Constipation Dizziness Black stool Gastric problems Others (Specify)_____ Don't know	1 2 3 4 97 99
411	What are the methods to overcome the side effects? (Multiple responses possible)	Take the tablet after dinner before sleeping Take the tablet after a meal Drink lots of water through the day Others (Specify)_____ Don't know	1 2 3 97 99

E. SERVICE DELIVERY

412	Do you provide Iron and folic acid tablets to pregnant women ?	Yes No	1 → **414** 2
413	(If no), Why?	_____	
414	How many IFA tablets do you provide?	☐☐	
415	Do you re-supply IFA tablet to the pregnant women?	Yes No	1 2
415.1	Do you provide Iron and folic acid tablets to post partum women ?	Yes No	1 → **415.3** 2
415.2	(If no), Why?	_____	
415.3	How many IFA tablets do you provide to post partum women?	☐☐ Not applicable	 97
415.4	Do you re-supply IFA tablet to the post partum women?	Yes No Not applicable	1 2 97

F. MONITORING AND SUPERVISION

501	Do you undertake home visits?	Yes No	1 2 → 504
502	If yes, how frequently do you undertake home visits to pregnant women?	2-3 times a week Weekly Monthly Others……	1 2 3 97 → 504
503	What do you do during home visits? (Multiple Responses possible)	Check utilization of IFA Counseling on IFA (benefits/side effects) Resupply IFA tablets Routine ANC None	1 2 3 4 9
504	Do you monitor the compliance/utilization of IFA tablets among pregnant women?	Yes No	1 2 → 507
505	If yes, at what contact points do you check compliance of pregnant women to IFA tablets? (Multiple Responses possible)	Home visits Mothers meeting At health facility/during ANC visits EPIs sessions Other (specify).....	1 2 3 4 5
506	How do you monitor utilization of IFA tablets by pregnant women? (Multiple Responses possible)	Ask the pregnant women Check empty blisters/sachets Check with family members/caregivers Problem solving/counseling to continue Other	1 2 3 4 97
507	Have you developed any formats/plans to check utilization of IFA tablets by pregnant women?	Yes No	1 2

G. COUNSELLING AND USE OF IEC

601	Do you counsel PW on anemia and its consequences?	Yes No	1 2 →**701**
602	Did you counsel the pregnant woman on 1. dosage, 2. side effects and 3. benefits of IFA supplementation? (Write Yes, if counseled on any 2)	Yes No	1 2
603	Do you counsel the pregnant women on regular consumption of IFA supplements?	Yes No	1 2
604	When/ where do you counsel the pregnant women on IFA supplementation?	Home visits Mothers meeting At health facility/during ANC visits EPIs sessions Other (specify)_____	1 2 3 4 97
605	Have you developed any plans to counsel pregnant women on IFA supplementation?	Yes No	1 2
606	Did you conduct group counseling session in the previous month?	Yes No	1 2 → **608**
607	If yes, when are the group counselling sessions conducted ?	EPI sessions ANC sessions Home visits	1 2 3
608	Do you use any IEC/BCC material for counseling on IFA supplementation?	Yes No	1 2 → 610
609	What communication materials do you use for IFA? (Multiple responses possible)	Festoon wall hanging Brochure Other (Specify)_____	1 2 97
610	Is there any IEC/BCC material displayed at the health centre?	Yes No	1 2 →**612**
611	(If yes), Which IEC/BCC materials are displayed at the centre? (Multiple responses possible)	Festoon wall hanging Brochure Other (Specify)_____	1 2 3
612	In your opinion, which one is the most effective IEC/BCC material? (Multiple responses possible)	Festoon wall hanging Brochure Other (Specify)_____	1 2 3
613	When do you use IPC tools?	Mothers meeting Home visits Follow up visits Health Center Others, specify_____	1 2 3 4 97

H. IFA SUPPLY AND STOCK SITUATION

701	Do you have adequate stock of IFA supplements ? (at least 600 tablets @ 30 tabs each for 20 pregnant women/ month)	Yes No	1 2
702	How many IFA supplements were received at the health facility for distribution in the previous month? (Check from stock registers and note the number)	No._____	
703	How many IFA supplements have been distributed in the previous month? (Check from stock registers and note the number)	No._____	
704	Were any stock outs for IFA supplements reported at the health facility in the previous month?	Yes No	1 2
708	How many days in the last week you have attended CC?	Days……	

I. RECORDING AND REPORTING

801	Whether reporting forms and registers are available at the HF / CC?	Yes No	1 2
802	Number of pregnant women enrolled for first time for ANC at CC (Verify from the register and note the number)	No._____	
803	Number of all pregnant women provided with IFA supplements who visited the CC in the last month (Verify from the register and note the number)	No._____	
804	Whether the recording of information is correct and complete in the register? (Assess from a sample of at least 5 entries in the register about the number of pregnant women registered, pregnant women who received ANC services, pregnant women who received ANC counseling and number of deliveries conducted)		
804.1	Number of pregnant women enrolled for first time for ANC	Yes No	1 2
804.2	Who came for ANC counseling	Yes No	1 2
804.3	No of delivery	Yes No	1 2
805	Whether monthly report is submitted timely (along with submission of HMIS Report)? (Verify from the last month/s report)	Yes No	1 2

Thanks the respondent and end the interview

Conducting a Rapid Midline Assessment of the Project "Strengthening the Iron and Folic Acid Supplementation (IFA) Program to reduce Iron Deficiency Anaemia among Pregnant Women"

Draft Questionnaire for Supervisors

Instruction: Responses codes to be encircled

Identification Particulars	
Name of the Supervisor :_____ Designation:_____	
Type of facility _____	
Catchment Area _____	
Name of the investigator: _____	
Introduction and Informed consent : Salam/Adab, My name is _____. I am from _____Bangladesh, a Research Firm. At present we are conducting a survey on health related issues in your community on behalf of micronutrient initiative (MI). The information you will provide will be fully confidential and will be used in research purpose only. Whether you will give this interview or not will totally depend on your personal will. If you are unwilling to answer any of the questions or feel embarrass to answer you may stop the interview any time you want or you can refrain from answering that specific question (s). Your answer will be totally voluntary. Your opinion and cooperation is very important for this study. It will be really helpful for us if you kindly spare some of your valuable time for this interview. Respondent agreed to participate in the interview…….1 Respondent did not agree to participate in the interview……2 Stop the interview…….12 **Interviewer's/ Facilitator's Signature** _____ **Date** _____/_____/_____ The respondent agreed to proceed..... 1 → The respondent refused to proceed..... END 2 →	

	Assessing knowledge and skills of the supervisor related to Anaemia and IFA supplementation	**Response Categories**	**Code**
1	What are your job responsibilities? Please enlist all that you can remember.	1. _____ 2. _____ 3. _____	
2	How many persons report to you?	No. _____ Not Applicable	 98
3	Have you ever heard about anaemia?	Yes No	1 2 → 6
4	What are the symptoms of anaemia? (Multiple responses possible)	Weakness Dizziness Fatigue Vomiting tendency Poor physical work capacity Others (Specify)_____ Don't know	1 2 3 4 5 98 → 13 99 → 9
5	Does the supervisor understand the consequences of anemia ?	increases maternal iron deficiency increased risk of low birth weight baby Increased risk of maternal death in case of severe anaemia Others (Specify)_____	1 2 3 97
	Monitoring and supervision		
6	How frequently do you undertake supervisory/monitoring visits to your staff?	2-3 times a week Once a Week Fortnightly	1 2 3

		Monthly Not Applicable Never	4 98→ 13 99→ 9
7	How do you supervise/monitor your supervisee? Please explain	Comparing the number of monthly home visits conducted with the number expected	1
		By checking their register entries for the last month	2
		Others Specify_____	97
8	Do you use any checklist/ monitoring tool during your monitoring visits?	Y N	1 2
9	Do you conduct home visits?	Y N	1 2→ 13
10	What do you monitor during the home visits?	_____	
11	Do you use any BCC materials during home visit or during the supervision of your staff?	Y N	1 2 → 13
12	If yes, what BCC/IEC materials do you use?	Festoon (hanging on the wall) Brochure Leaflet Flip chart Others ….	1 2 3 4 97
13	Do you counsel the pregnant / post partum women to take the full course of IFA tablets?	Y N	1 2
14	How do you compile the monthly report? Please explain the process.	_____	
15	Do you regularly receive HMIS/monitoring reports?	Timely but not complete Complete but not timely Timely and complete Don't get reports Not Applicable	1 2 3 4 98
16	Do you give feedback of your monitoring visits to your staff?	Y N Not Applicable	1 2 98
17	Do you discuss the key observations from your monitoring visits in the monthly meetings at upazilla level?	Y N Not applicable	1 2 98
Training on Anaemia and IFA supplementation			
18	Have you undergone any training on strengthening the IFA supplementation program for pregnant women? Yes/No	Y N	1 2 → 22
19	If yes above, ask when did you attend the training program? Please mention the month and year of the most recent training.	,,,,,,,,,,, Month to .....Year	
20	Do you feel the need for any further training? ~~Yes/No~~	Y N	1 2→ End
21	(If yes) Please elaborate, what kind of training do you need?	_____	
22	What training your want to receive?	Y N	1 2→ End

Thank the Supervisor and end the interview

Annex 3:
Members of the Study Team

Members of the Study Team

Principle Investigator & Team Leader
Golam Mahiyuddin, *MBBS, MPH*

Monitoring and Evaluation Expert
Sk. Ali Ahmed, *MSS MBA*

Data Analyst
Faisal Mohammad Ahamed, *MSS*

Systems Analyst
ASM Obaidur Rahman
Ajoy Kumar Saha

Finance Support
Abu Taleb
Md. Arif Miah

Administrative Support
Md. Sabed Ali
Md. Kabiruzzaman
Md. Mozammel Hoque

Field Supervisors

Md. Asraful Alam
Md. Arifuzzaman

Field Enumerators
Md. Abdul Wahed
Sailen Akter
Romena Afroz
Mili Khatun
Pousi Akter
Hosna Akter
Rabiul Islam
Rakibul Hasan
Rokshana Begum
Joytsna Akhter
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Alfatunnesa
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