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A model for providing 24-hour normal delivery services at Union Health and Family Welfare Centers in Bangladesh

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brief

A MODEL FOR PROVIDING 24-HOUR NORMAL DELIVERY SERVICES AT UNION HEALTH AND FAMILY WELFARE CENTERS IN BANGLADESH

In rural areas of Bangladesh, emergency obstetric care services are available at the upazila level and above. At lower levels, Union Health and Family Welfare Centers (UHFWCs) located in the proximity of women's homes provide normal delivery services. Approximately 1,500 UHFWCs have been upgraded to provide normal delivery services, but only one-fifth of them are providing such services, occasionally. UHFWCs as an outdoor service facility remain a chief barrier for rural women's access to 24-hour normal delivery services. Recently, the Directorate General of Family Planning (DGFP) undertook an initiative to provide 24-hour normal delivery services in all upgraded UHFWCs, but improvement is required to transform UHFWCs from outdoor centers into primary maternity clinics with round-the-clock service availability. The Population Council, with financial support from UKaid through Crown Agents, is providing technical assistance to the DGFP to implement an Operations Research (OR) study in 24 UHFWCs in 2 districts of Bangladesh (Chittagong and Munshiganj) that tests the effectiveness of a model to strengthen UHFWCs so that they can provide 24-hour normal delivery services.

To generate evidence for scaling up a model to provide 24-hour normal delivery services at UHFWCs, the OR study is designed to utilize both baseline (pre-intervention) and endline (post-intervention) surveys. The baseline survey collected data using a combination of qualitative and quantitative methods to assess various aspects of maternal health care, including readiness of facilities, competence of service providers, awareness of clients, and utilization of maternal health services. This brief presents an overview of the project, describes the implementation of project activities as of December 2015, and summarizes the key findings from the baseline survey.

PROJECT DESCRIPTION

This UHFWC OR study uses a separate sample pre-test and post-test control design of five groups, including four intervention groups and a control group. Broadly, interventions include: human resource strengthening, community participation, and referral linkage strengthening. Four combinations of three different interventions are tested in the four intervention groups.

KEY LESSONS

Instituting a **two-way communication mechanism between providers and pregnant women** can play an important role in ensuring that a Family Welfare Visitor (FWV) is available for 24-hour normal delivery services at the UHFWC.

The concept of **working in a team is critical in motivating fieldworkers** (CSBAs, FWAs) to encourage/refer pregnant women to seek delivery service from an FWV at a UHFWC.

Along with **strengthening connections** between UHFWCs and higher-level government facilities, the **introduction of a referral slip** makes it easier for clients to receive appropriate attention and services at higher-level facilities when needed.

Technical **supervision from the upazila level** (UFPO or MO-MCHFP) is essential for enhancing FWV's skills so they can manage pregnancy complications.

Reactivation of UHFWC Management Committees is crucial for identifying the problems involved, and possible solutions to strengthen UHFWC's 24-hour normal delivery services. If sensitized and financially empowered, the Committee can improve physical conditions of the UHFWC and carry out emergency maintenance.

The Management Committee members can be motivated to participate in **mass publicity regarding UHFWC's 24-hour normal delivery services.**

The introduction of the **Community Fund** for repair and emergency maintenance of UHFWCs is an important first step toward joint management through the DGFP and UHFWC Management Committee.

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- **Strategy I:** Full Intervention (Human Resource Strengthening, Community Participation, and Referral Linkage Strengthening)
- **Strategy II:** Human Resource Strengthening with Community Participation
- **Strategy III:** Human Resource Strengthening with Referral Linkage Strengthening
- **Strategy IV:** Non-HR Interventions (Community Participation with Referral Linkage Strengthening)

Three of the four intervention strategies experiment with human resource (HR) strengthening in combination with other interventions. In intervention Strategy IV, a combination of community participation and referral linkage strengthening is tested. In the control arm, none of these interventions is implemented (Table 1).

TABLE 1: STUDY DESIGN

Types of interventions	Intervention Arms				Control
	I	II	III	IV	
Strengthening human resource capacity					
i) Ensure availability of FWV at UHFWC					
ii) Promoting teamwork by linking CSBAs with FWV	Y	Y	Y	N	N
iii) QA visit from upazila level					
Community participation					
i) Reactivating UHFWCMC	Y	Y	N	Y	N
ii) Strengthening BCC activities					
Strengthening referral linkages along with transportation networking and mobile connectivity	Y	N	Y	Y	N

Y = Yes. N = No. BCC = Behavior Change Communication. CSBA = Community Skilled Birth Attendant. FWV = Family Welfare Visitor. QA = Quality Assurance. UHFWC = Union Health and Family Welfare Center. UHFWCMC = UHFWC Management Committee.

A total of 24 UHFWCs with labor and recovery rooms and family welfare visitors (FWVs) in place from eight upazilas in Chittagong and Munshiganj districts are exposed to the interventions. Six UHFWCs from 2 upazilas of Comilla district comparable to the intervention facilities serve as control sites.

IMPLEMENTATION OF THE PROJECT

The UHFWC OR study is of 21 months' duration with three distinct phases: pre-intervention, intervention implementation, and evaluation. Preparatory activities were completed in June 2015, and intervention activities started in July 2015.

Pre-Intervention Activities

PRE-INTERVENTION ASSESSMENT

Quantitative

The pre-intervention quantitative assessment primarily took place at two different levels, with specific objectives at each: the community and the health facility.

The community-level assessment was comprised of a population-based survey among eligible women. Participants were randomly selected from a list of women who delivered in the past 12 months prepared by government field-level functionaries. A total of 1,950 women from 30 study unions (intervention: 24, control: 6) were interviewed in the pre-intervention household survey where information on health-seeking practices during the last pregnancy, particularly the experiences with institutional delivery, was collected.

The health-facility-level assessment included two types of data collection—provider interviews and facility assessments. From 24 intervention unions, 27 FWVs working at UHFWCs were interviewed to assess their knowledge and skills related to normal delivery and their perceptions of needs at the facility. A survey of 26 managers at district and upazila levels explored the opportunities and challenges of instituting 24-hour normal delivery services at union-level facilities.

At all UHFWCs operated by the DGFP in two intervention districts, facility assessments were conducted to gather information on the characteristics of UHFWCs—human resources, physical facilities, service provision, equipment, drugs and supplies, and facility management.

TABLE 2: SUMMARY OF PRE-INTERVENTION DATA COLLECTION*

Data collection methods	Respondents	Target numbers
Household survey	Women who delivered within last one year	1,950 interviews
Facility survey		
Facility assessment	UHFWCs	174 UHFWCs
Provider survey	Providers at UHFWCs	27 interviews
Program manager survey	Program managers at upazila and district levels	26 interviews

* Data was collected from December 2014 through March 2015.
UHFWC = Union Health and Family Welfare Center.

Qualitative

A total of 24 participatory rural appraisal (PRA) sessions with married men in 24 intervention unions identified issues related to access and availability of normal delivery services at the union level and below, and captured the men's expectations of UHFWCs for delivery services.

In addition, 24 focus group discussions (FGDs) with local government representatives in all intervention unions assessed their perspectives on UHFWC performance, expectations of UHFWCs, and willingness to contribute to infrastructural improvements and facility maintenance. Findings from the PRAs and FGDs helped develop the guidelines for the functioning of UHFWC Management Committees, and utilization of locally generated funds.

STAKEHOLDER ORIENTATION AND SENSITIZATION

A total of 41 meetings/workshops were conducted at the upazila and union levels to orient and sensitize a wide range of stakeholders.

Orientation meetings with district-, upazila-, and union-level staff. With the aim of building ownership and management support for the project, eight orientation meetings were held (one in each intervention upazila). Meetings were attended by government program managers from both health and family planning directorates working at the district and upazila levels, and service providers from the Upazila Health Complex (UHC), UHFWCs, and Community Clinics. In the orientation meetings, project activities were explained and "health" and "family planning" service providers and management staff were sensitized on improving the capacity of UHFWCs in providing 24-hour normal delivery services, monitoring and supervision of UHFWCs, and the importance of a coordinated referral mechanism (from community to upazila/district level).

Orientation meetings with fieldworkers and supervisors. Eight meetings oriented family planning fieldworkers (family welfare assistants, or FWAs) and their supervisors (family planning inspectors, or FPIs) and community health care providers (CHCPs) on the project activities, use and distribution of behavior change communication (BCC) materials, referral of pregnant women, and follow-up of postnatal cases. The coordinated efforts of health and family planning workers in the successful implementation of activities was emphasized in these meetings.

Orientation meetings with the UHFWC Management Committee. UHFWC Management Committees (UHFWCMCs) were reactivated in accordance with the government notice. In seven upazilas that were exposed to the community mobilization intervention, workshops were organized with members of reactivated committees to orient them on project activities, particularly the improved capacity of UHFWCs in providing 24-hour normal delivery services, facility maintenance, community participation, and resource mobilization.

Action plan workshops. In 18 unions that were exposed to the community mobilization intervention, workshops were held with UHFWCMC members, service providers from UHFWCs, and upazila-level program managers to develop an "action plan" for managing the facility engaging relevant stakeholders. These workshops resulted in the outlining of a specific plan to improve, manage, and monitor UHFWCs towards ensuring round-the-clock normal delivery services. In addition, action plan workshops embarked on the process of mobilizing resources by establishing a **Community Fund for UHFWC**, with the contribution of Union Parishad, bazaar committees, and community members, for facility maintenance and transportation of referral cases.

DEVELOPMENT OF A PROJECT OPERATIONS GUIDELINE AND COMMUNICATION TOOLS

For better implementation and management of project activities, a guideline was developed for the UHFWCMCs and the use of funds raised through community participation. Six workshops were held at the upazila level to develop this guideline. Additionally, a brochure was developed for distribution among poor pregnant women, community members, and bazaar committees on UHFWC management, community monitoring of UHFWC performance, and utilization of locally generated funds.

To publicize the new status of the UHFWC, a flyer depicting the expected benefits of the project along with a mobile phone number for emergency contact and a sticker containing information on the availability of round-the-clock normal delivery services at the UHFWC were developed and printed for distribution.

Implementation of Interventions

This project has been in the intervention phase since July 2015. The Population Council has provided technical assistance to the DGFP to implement intervention activities and has documented the evidence-gathering processes.

STRENGTHENING HUMAN RESOURCES CAPACITY

- In 19 out of 24 UHFWCs, Family Welfare Visitors are residential, thus the availability of an FWV for 24-hour normal delivery services is ensured. Phone numbers of UHFWC service providers have been publicized across the union through different BCC instruments so that pregnant women can communicate with providers when any need arises.
- Medical Officers of Maternal Child Health and Family Planning (MO-MCHFP) were sensitized during orientation and action plan workshops on

how to execute quarterly visits to supervise and mentor UHFWC staff to ensure the quality of normal delivery services. A checklist was developed for MO-MCHFP's on-site monitoring and supervision of UHFWC staff.

- The concept of working in a team at the union level has been introduced to promote that delivery at a facility is safer than delivery at home. CSBAs are available in one-third of intervention unions and have been linked with the providers at the UHFWC so that they can refer pregnant women to the UHFWC for normal delivery services.

INCREASING COMMUNITY PARTICIPATION

- UHFWCMCs have been reactivated to manage facilities and mobilize resources through active community participation. Monthly meetings have been introduced to review implementation of interventions and to ensure contributions from the Management Committee.
- A **Community Fund for UHFWC** has been established to mobilize resources from members of UHFWC Management Committee and the community. UHFWCs have opened bank accounts for the Community Fund, which are operated by two signatories chosen from the Committee. The Committee uses this fund to improve the physical conditions of the UHFWC, conduct emergency maintenance, and subsidize the transportation costs of referral cases. To ensure transparency, fund accumulations, expenditures, and current balances are presented at monthly meetings.
- Activities on promoting awareness and creating demand for facility-based normal delivery services are in place: interpersonal communication through regular monthly household visits by FWAs, distribution of flyers and brochures, and the placement of signboards and posters in front of the intervention facilities for mass viewing. Along with these, stickers are used to publicize 24-hour normal delivery service as well as associated services.
- UHFWC Management Committees take part in awareness building through courtyard meetings with pregnant mothers, public announcements in the community, and printing and distributing locally-developed leaflets.

STRENGTHENING REFERRAL LINKS

- A referral mechanism between UHFWCs and higher-level facilities, such as the Upazila Health Complex, Mother and Child Welfare Center, and District Hospital, has been strengthened. At the same time, a "referral slip" has been introduced for referrals in case of a complicated delivery or one requiring cesarean delivery. At the community level, to follow up on referral cases, FWAs are advised to visit new mothers at their home.
- The project has established a transportation networking for referral clients and connectivity between service providers and pregnant women through cell phones. Routinely, FWVs call pregnant women to remind them of recommended care or scheduled visits, and contact higher-level facilities for referrals when needed.

Monitoring and Evaluation of Interventions

MONITORING

Three checklists have been developed to monitor intervention activities:

- A checklist for observing the activities of the UHFWC Management Committee.
- A quality assurance checklist for assessing the technical quality of normal delivery services provided at the UHFWC.
- A project MIS form for monitoring utilization of maternal health and family planning services provided and referrals made at the facility.

In addition, the project routinely collects lists of pregnant women and their expected delivery dates and contact numbers. These lists plays an important role in communication between service providers and pregnant women via cell phone towards increasing facility-based deliveries.

The project holds three types of meetings at specific intervals to review the progress of planned activities, both at project management and field levels:

- Project staff attend monthly UHFWC Management Committee meetings where they review progress, identify gaps in implementing interventions, and suggest measures, if appropriate. A copy of the meeting resolution is sent to the Upazila Family Planning Officer (UFPO) and MO-MCHFP for their information and action, and for monitoring.
- On a quarterly basis, meetings to review the progress of intervention implementation are held in two districts attended by national-, district- and upazila-level program managers, and UHFWC providers.
- At monthly internal meetings with DGFP representatives at the Population Council's Dhaka office, progress in implementing activities is reviewed and monitored.

EVALUATION

Interventions will be followed by an evaluation phase in which the outcome of the interventions will be assessed. Comparisons between the control and intervention sites will be made to measure the relative effectiveness of the four service-delivery models and changes attributable to each of the project interventions. Instruments that were used in the pre-intervention assessment will be used in the post-intervention survey. In addition, service statistics will be used to supplement the findings from the household survey.

FINDINGS FROM THE PRE-INTERVENTION ASSESSMENT

Supply-Side Perspectives

FACILITY READINESS

A facility assessment was conducted focusing on physical structure, human resources, service delivery, logistics, and management. Findings were used to develop an "action plan" for implementing interventions, which was later shared at workshops with UHFWC Management Committee members, UHFWCs providers, and upazila managers.

Assessment of the physical condition of UHFWCs reveals that light, air ventilation, and cleanliness are satisfactory. Of 24 UHFWCs, 21 have electricity. Twenty-three facilities have a water supply, while one facility brings water away from the facility. Overall, sanitation facilities are satisfactory. Only one facility did not have any usable toilets. (Not shown.)

Facilities had separate rooms for service providers along with labor and recovery rooms. However, in 6 out of 24 facilities, recovery rooms were not functional. In 17 out of 24 facilities, recovery rooms had a bed. Three out of 24 residential quarters lacked essential utilities, such as a supply of water and electricity, and doors and windows were broken in two quarters. (Not shown.)

A well-equipped labor room is critical for delivery-service provision. Equipment and logistics in the labor room at UHFWCs were not fully available. Findings reveal that one-fifth of the facilities had a fixed or portable operating light for delivery services. Most facilities did not have an alternate power supply in the labor room. A functioning generator was found in 7 out of 12 UHFWCs in Chittagong district, while none of the facilities in Munshiganj had a generator. Delivery/operating tables were in working condition in most facilities. The cleanliness of the labor room was found to be somewhat satisfactory (Table 3).

TABLE 3: CONDITIONS OF THE LABOR ROOM IN 24 UHFWCS (PERCENT)

Item	Chittagong	Munshiganj	Total
Physical			
Water supply	91.7 (11)	100.0 (12)	95.8 (23)
Working generator	58.3 (7)	0.0 (0)	29.2 (7)
Toilet	100.0 (12)	91.7(11)	95.8 (23)
Fan	66.7 (8)	75.0 (9)	70.8 (17)
Door with lock	33.3 (4)	33.3 (4)	33.3 (8)
Cleanliness	66.7 (8)	66.7 (8)	66.7(16)
Clinical			
Delivery/ operating table	91.7 (11)	75.0 (9)	83.3 (20)
Operating light	33.3 (4)	8.3 (1)	20.8 (5)
N	12	12	24

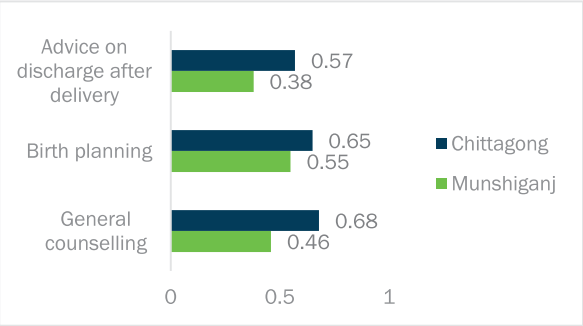
PROVIDER COMPETENCE

A survey conducted among 27 FWVs in 24 intervention UHFWCs attempted to assess knowledge and skills related to normal delivery. Provider competence is defined as possessing sufficient knowledge and skills to comply with maternal health care standard practices. In assessing provider skills, an arbitrary composite competency score was used.

Provider profile. The average age of the FWVs is 44, with no remarkable differences between the two intervention districts. Not all FWVs received training on maternal health services along with the other training necessary to provide delivery services. Almost all service providers (96%) in Chittagong felt that they needed further training, while a slightly lower proportion expressed such a need in Munshiganj (87%). The types of training emphasized were: active management of the third stage of labor, use of partograph, acute respiratory infection, integrated management of childhood illness, and neonatal care. (Not shown.)

Counseling skills. FWVs' maternal health care counseling skills were assessed on three broad aspects: general counseling (6 indicators), birth planning counseling (8 indicators), and advice on discharge after delivery (6 indicators). To obtain a summary performance of FWVs, an arithmetic method is used to estimate the competency score from selected indicators for each aspect of counseling. Overall, the counseling skills of FWVs was discouraging, not exceeding a score of 0.68 out of 1.00. The level of counseling competency is higher in Chittagong than Munshiganj. Of the three aspects of counseling, "birth planning" earned the highest score (Chittagong: 0.65, Munshiganj: 0.55), while the lowest score is on counseling at "discharge after delivery" (Chittagong: 0.57, Munshiganj: 0.38) (Figure 1). Low scores on maternal health counseling can be accounted for by lack of opportunities for in-service training or absence of regular supportive supervision.

FIGURE 1: COUNSELING SKILLS OF FWVS ON MATERNAL HEALTH SERVICES (SCORE 0–1)



Obstetric skills. Overall, competency of maternal healthcare clinical skills was high among FWVs. Exclusion of partograph from the composite index raises the score to 0.89 out of 1.00. Most FWVs reported possessing the skills to practice bimanual examination, inject intravenous infusions, perform speculum examination, suture episiotomy, and repair vaginal laceration.

TABLE 4: CLINICAL SKILLS OF FWVS ON MATERNAL HEALTH CARE (NUMBER)

Indicators	Chittagong	Munshiganj	Total
Use partograph to manage labor	1	4	5
Provide intravenous infusions	15	12	27
Suture episiotomy	13	10	23
Suture (repair) vaginal laceration	12	10	22
Perform speculum examination	13	12	25
Perform bimanual examination	15	12	27
Perform menstrual regulation	12	8	20
N	**15**	**12**	**27**
Composite score	**0.77**	**0.81**	**0.79**
Composite score without partograph	**0.89**	**0.89**	**0.89**

In contrast, only 5 out of 27 FWVs reported using a partograph to manage labor (Table 4). It is critical that all the FWVs are skilled in using a partograph to manage labor; otherwise, there will be risk in recognizing obstetric complications.

Demand-Side Perspectives

Prior to introducing the interventions, a household survey among married women of reproductive age living in 24 intervention unions in Chittagong and Munshiganj districts and 6 control unions in Comilla district was conducted to assess their awareness and utilization of maternal health services.

WOMEN'S AWARENESS

Not all women were aware of the availability of health facilities for maternity care in their locality. For pregnancy care, the most frequently reported source of service in intervention and control areas was private hospital/clinic (73–79% vs. 69%) followed by UHFWC (62–67% vs. 62%), and Upazila Health Complex (47–51% vs. 45%). In addition, 31–45 percent of women in intervention areas also mentioned tertiary hospitals as a source of pregnancy care. In Munshiganj, NGO facilities as a source of pregnancy care was mentioned by a negligible proportion of women (4%), while such awareness of NGO facilities is higher at 26 percent in Chittagong (Table 5).

TABLE 5: WOMEN'S AWARENESS OF SOURCES OF PREGNANCY CARE (PERCENT)

Sources of care*	Intervention		Control
	Chittagong	Munshiganj	Comilla
Public			
Tertiary hospital	31.4	45.1	13.9
District hospital	4.2	10.8	4.5
MCWC	12.4	2.7	2.9
UHC	47.1	51.3	44.7
UHFWC	67.1	62.1	62.1
Community clinic	20.4	12.8	25.8
NGO			
NGO static clinic	25.8	3.7	2.1
Private			
Private facility	73.1	78.8	68.9
Qualified doctor's chamber	62.1	17.1	28.4
N	**783**	**787**	**380**

*Multiple responses. MCWC = Mother and Child Welfare Center. UHC = Upazila Health Complex. UHFWC = Union Health and Family Welfare Center.

Findings presented in Table 6 suggest inadequate awareness among women on available services at the UHFWC. The availability of normal delivery services at the UHFWC was known to less than 20 percent of women in the intervention sites. Even worse, UHFWC's 24-hour normal delivery service was known to a maximum of six percent of women. The UHFWC is commonly known as a facility that provides family planning (intervention: 53–56%, control: 64%) and general illness services (intervention: 44–57%, control: 58%). These findings strongly advocate for comprehensive publicity about the UHFWC's 24-hour normal delivery services.

TABLE 6: WOMEN'S KNOWLEDGE REGARDING AVAILABLE SERVICES AT UHFWC (PERCENT)

Awareness of services*	Intervention		Control
	Chittagong	Munshiganj	Comilla
Family planning	56.3	52.6	63.9
Normal delivery	18.9	15.7	9.7
24-hour normal delivery	5.9	0.4	0.3
Mother and child care	57.5	16.1	54.5
Menstrual regulation	2.7	0.9	3.9
General illness	43.9	57.3	58.2
N	783	787	380

*Multiple responses.

Overall, findings indicate a discouraging scenario regarding awareness among women on life-threatening complications during delivery. In intervention sites, 6–36 percent of women could cite any danger signs of pregnancy, while 6–24 percent could site them in the control site (Table 7).

TABLE 7: WOMEN'S KNOWLEDGE OF LIFE-THREATENING COMPLICATIONS DURING DELIVERY (PERCENT)

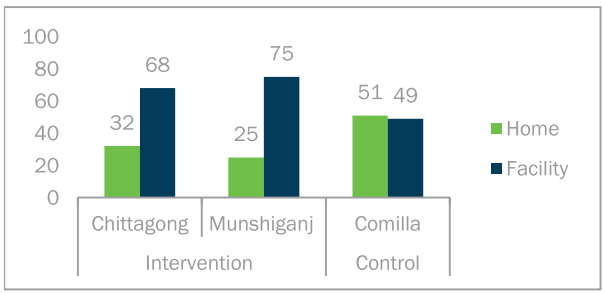
Life-threatening complications during delivery *	Intervention		Control
	Chittagong	Munshiganj	Comilla
Severe headache	7.0	8.1	9.5
Blurry vision	7.3	6.2	6.3
Convulsion/ Eclampsia	14.3	36.1	17.1
Excessive vaginal bleeding	34.5	31.8	24.0
Baby's hands/feet coming out first	13.9	19.3	18.2
Prolonged labor	26.2	18.3	19.8
N	783	787	380

*Multiple responses.

UTILIZATION OF INSTITUTIONAL DELIVERIES

A higher rate of institutional delivery was reported in the intervention areas than the control area. In the intervention areas, 68–75 percent of deliveries were conducted at a facility, compared with 49 percent in the control area.

FIGURE 2: PLACE OF LAST DELIVERY (PERCENT)



Of all institutional deliveries, 44–68 percent were conducted at private facilities in intervention areas, which is much lower than in the control area (81%). Of the deliveries conducted at public facilities in the intervention districts, 10–24 percent were performed at the UHFWC, compared with 14 percent in the control district (Table 8), suggestive of a substantial underutilization of union-level facilities. It has been estimated that approximately 400 births take place in a union per year of which 15 percent require cesarean sections from higher-level facilities at the upazila and above. As per global standard protocol, a trained mid-level provider (e.g., FWV at the UHFWC) can perform 175 deliveries annually, which comprises half of the normal deliveries of a union.

TABLE 8: TYPES OF FACILITIES WHERE WOMEN HAD THEIR LAST DELIVERY (PERCENT)

Type of facility	Intervention		Control
	Chittagong	Munshiganj	Comilla
Public	43.9	30.2	18.9
Private	43.9	68.1	81.1
NGO	12.2	1.7	0.0
Total	100.0	100.0	100.0
N	533	593	185
Public-sector facility			
Tertiary hospital	40.2	70.4	48.6
District hospital	3.4	2.2	11.4
MCWC	18.8	7.8	5.7
UHC	12.8	9.5	20.0
UHFWC	24.4	10.1	14.3
Community clinic	0.4	0.0	0.0
Total	100.0	100.0	100.0
N	234	179	35

MCWC = Mother and Child Welfare Center. UHC = Upazila Health Complex. UHFWC = Union Health and Family Welfare Center.

Among nonseekers of institutional delivery, it is the absence of need that discourages delivery at the facility in both intervention and control sites (68% vs. 86%) as reported by the women who had home delivery. Financial constraint is another reason for nonuse of institutions for childbirth (intervention: 18%, control: 13%). Absence of the need to use facilities for delivery care indicates strengthening awareness activities at the community level. (Not shown.)

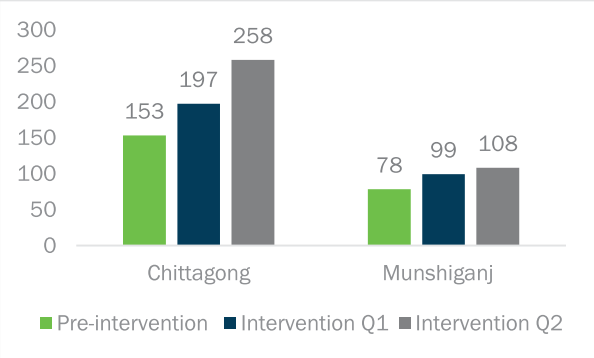
FINDINGS FROM SERVICE STATISTICS

Since the start of the intervention phase in July 2015, utilization of services and number of deliveries at 24 intervention UHFWCs increased steadily. In the six months preceding the interventions, the total number of deliveries at 24 UHFWCs was 461. On the other hand, in the first six months of the interventions (July to December 2015), the total number of normal deliveries was 662. This increase in delivery performance can be attributed to the 24-

hour service delivery, improved condition of the facilities, promoting awareness that delivery at a facility is safer than delivery at home, creating demand in the community, and regular monitoring.

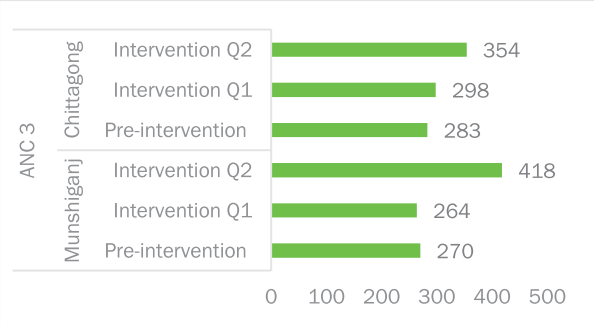
Figure 3 reveals improvements in the quarterly performance on normal delivery services of 24 UHFWCs in two intervention districts. Chittagong experienced much greater increase in the performance on normal deliveries than Munshiganj.

FIGURE 3: QUARTERLY PERFORMANCE ON NORMAL DELIVERY OF 24 UHFWCS (NUMBER)



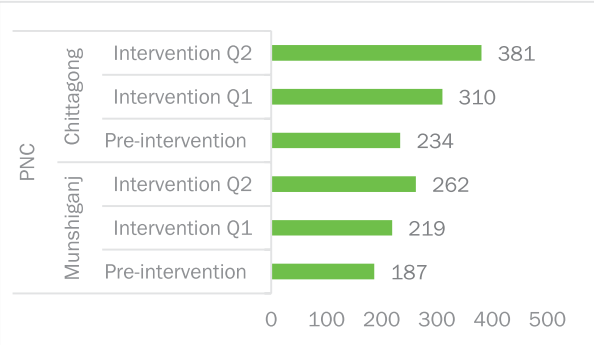
As with delivery performance, the number of women who received three antenatal checkups and postnatal care also increased (Figure 4A, 4B).

FIGURE 4A: QUARTERLY PERFORMANCE ON ANC 3 OF 24 UHFWCS (NUMBER)



ANC = Antenatal care.

FIGURE 4B: QUARTERLY PERFORMANCE ON PNC OF 24 UHFWCS (NUMBER)



PNC = Postnatal care.

CONCLUSIONS

Currently, the project is implementing the interventions. After the intervention phase, a rigorous evaluation using a pre-post control group design will be undertaken to assess the effectiveness of interventions. Meanwhile, data from process monitoring in intervention districts reveals some important observations for future lessons.

- Instituting a two-way communication mechanism plays an important role in ensuring that an FWV is available for 24-hour normal delivery services. FWVs' phone numbers have been publicized across the union through different BCC instruments so that pregnant women can communicate when the need arises. FWVs follow pregnant women's expected date of delivery, and call to remind them about recommended care.
- The concept of working in a team is critical in motivating fieldworkers (CSBAs, FWAs) to encourage/refer pregnant women to seek delivery service from an FWV at a UHFWC.
- A referral slip has been introduced for cases involving a complicated or cesarean delivery. Under the strengthened referral mechanism, the referral slip makes it easier for clients to receive appropriate attention and services at higher-level facilities.
- Technical supervision from the upazila level (UFPO or MO-MCHFP) is essential to enhance FWVs' skills so that they can manage pregnancy complications. Accordingly, pregnancy complications will be effectively identified at the UHFWC and referred to higher-level facilities for appropriate care.
- Reactivation of UHFWC Management Committees is crucial for identifying the problems involved, and possible solutions to strengthen UHFWC's 24-hour normal delivery services. If sensitized and financially empowered, the Committee can improve physical conditions of the UHFWC and carry out emergency maintenance.
- The Management Committee members can be motivated to participate in mass publicity regarding the availability of 24-hour normal delivery services at the UHFWC.
- The introduction of the "Community Fund" for repair and emergency maintenance of UHFWCs can be an important first step toward the joint management of the UHFWC through the DGFP and the Management Committee.

Suggested citation: Talukder, M.N., U. Rob, A.K.M.Z.U. Khan, F.R. Noor, and A.F. Noor 2016. "A Model for Providing 24-Hour Normal Delivery Services at Union Health and Family Welfare Centers in Bangladesh." *UHFWC Project Brief.* Dhaka: Population Council.