別添資料 1

Directorate General of Health & Family Planning Services
Safe Motherhood Promotion Project

Report of Quality Improvement for EmOC/Safe Delivery Services

Supported by:
Japan International Cooperation Agency

Background

The Government of Bangladesh is committed to achieve the Millennium Development Goals (MDGs) and has re-affirmed its obligation in different strategic papers. Reproductive health has been identified as an area of high priority in the Health, Nutrition and Population Sector Programme (HNPSP) to meet the MDG goals 4 and 5.

According to the Bangladesh Maternal Mortality Survey (BMMS) reported in 2010, the MMR has been estimated as 194 per 100,000 live births. Global estimate indicates that 15% pregnancies develop life threatening complications leading to long term disability, such as chronic pain, fistula, impaired mobility, infertility and damage to reproductive system. Leading causes of maternal deaths are postpartum hemorrhage, eclampsia, unsafe abortion, sepsis and obstructed/ prolonged labour. The annual expected number of births in Bangladesh is about 3.6 million and 76.6% (BMMS, 2010) of them are occurring at home in unhygienic conditions. Only 18% deliveries are assisted by medically trained persons. About 29% pregnant women do not take any ANC and coverage for 4 or more ANC visits is only 23.4%. This means that many of the pregnant women are missing the opportunity of necessary health care services. Proportion of women seeking postnatal care is also very low (national 22.5%).

On the other hand, neonatal mortality rate is 37 per 1000 live births, which is 71% of the infant deaths (IMR: 52 per 1000 live births). Studies show that three fourths of all the neonatal deaths are occurring during first seven days of life. This indicates inadequate neonatal care services by the persons providing delivery assistance. Globally, the main direct causes of early neonatal deaths include prematurely and LBW (28%), severe infection (26%) and birth asphyxia (23%). Most of the maternal and neonatal deaths could probably be averted if skilled attendance at birth could be ensured and quality emergency obstetric and neonatal care (EmNOC) services were available and accessible to the women and newborns during needs.

Safe Motherhood Promotion Project

Bangladesh government had implemented the Health, Nutrition and Population Sector Program (HNPSP) and JICA supported its implementation by the MoHFW in collaboration with other development partners (DPs). With the view to reducing maternal and neonatal mortality, JICA had particularly assisted the government to implement the Safe Motherhood Promotion Project (SMPP) at Narsingdi district since 2006 up to June 2011. The project was aimed at establishing an effective safe motherhood service delivery system to improve the availability and utilization of quality services for women during pregnancy and child birth. Being implemented by both the wings of the Ministry of Health and Family Welfare, the main components (outputs) of the project were:

1. Necessary decisions are made at central level through sharing good practices and lessons learned of the Project
2. Safe delivery service system is strengthened
3. Women and neonates are supported to utilize obstetric and neonatal care

To achieve the outputs, the project had activities both at the community and service facility levels, such as District Hospital, Sadar Hospital, MCWC, UHCs and H&FWCs. The community level activities included social and community mobilization, such as development of community support system in collaboration with CARE-Bangladesh, training/orientation for the local government bodies (chairman and members), religious leaders, field staff and pregnant women to promote healthy practices related to safe motherhood. On the other hand, the facility level activities included

assessment of the facility set-up and needs, facility level planning for improvement of quality and utilization of services and strengthening monitoring through organization of regular Upazila Project Implementation Committee (UPIC) and District Project Implementation Committee (DPIC) meetings. Joint Coordination Committee (JCC), chaired by the Joint Chief, at national level was organized to provide policy guideline and monitor the overall achievements of the project.

Current EmOC/safe delivery service situation

The service facilities available at Narsingdi included one District Hospital (100 bedded), one Sadar Hospital (100 bedded), one MCWC (20 bedded), 5 UHCs (31 bedded UHCs are under up-grading to be 50 bedded; Belabo UHC has become 50 bedded hospital already) and 76 union level facilities (58 Health and Family Welfare Centres and 18 Union Sub-centres/Rural Dispensaries). SMPP activities focused at all the district and Upazila level facilities. All the facilities at district level and three of five UHCs (Monohordi, Polash and Raipura) are currently providing comprehensive EmOC services.

Table 1: SMPP targeted facilities and service provisions

Targeted Facility	Service provided	Number
District Hospital	Comprehensive EmOC	1
Sadar Hospital	Comprehensive EmOC	1
MCWC	Comprehensive EmOC	1
UHC	Comprehensive EmOC	3
	Basic EmOC	2

All the targeted facilities were assessed and action plans were developed (with formation of EOC team) for 8 public facilities.

Quality of care in safe delivery/EmOC services

SMPP was very much concerned about quality of services at all the targeted facilities. Quality of care may be expressed as "doing the right thing, in the right way". Quality of care means providing services as per agreed upon standards, which is consistent with the human rights and current knowledge on evidence-based practices. In other wards, it means providing services in a way which is safe, effective, acceptable and easily available within limited resources. Quality EmOC services involve a state of **readiness** that will enable the service providers to **respond** appropriately to obstetric emergencies in a way that fulfils the **needs and rights** of the clients. Instituting effective quality assurance and quality improvement system assists in achieving desired program results that are efficient and cost-effective. Providing quality of services satisfies the service providers and fulfils the clients' rights and needs.

Clients' rights:

- Access to EmOC/safe delivery services and continuity of care
- Competent EmOC/safe delivery services
- Information and informed choice
- Privacy and confidentiality, dignity, comfort and expression of opinion

Providers' rights:

- Respect, dignity and expression of opinion
- Facilitative supervision and management
- Information, training and development
- Supplies, equipment and infrastructure

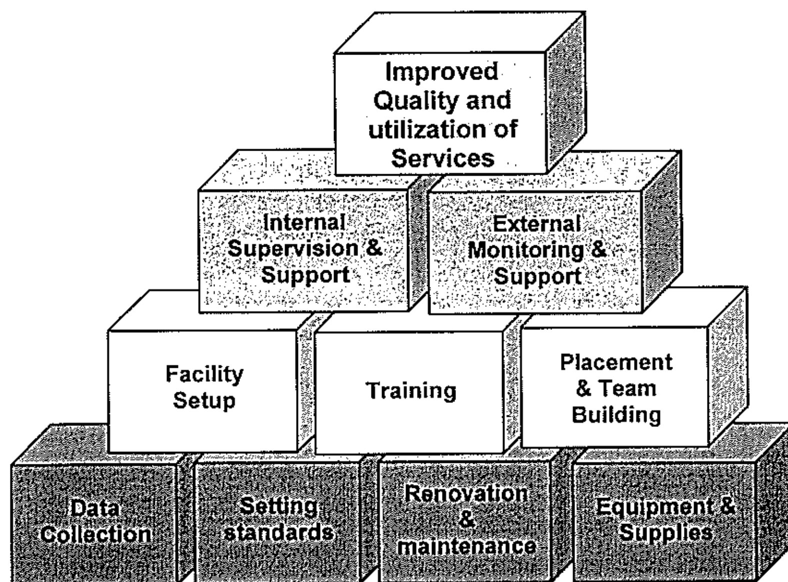


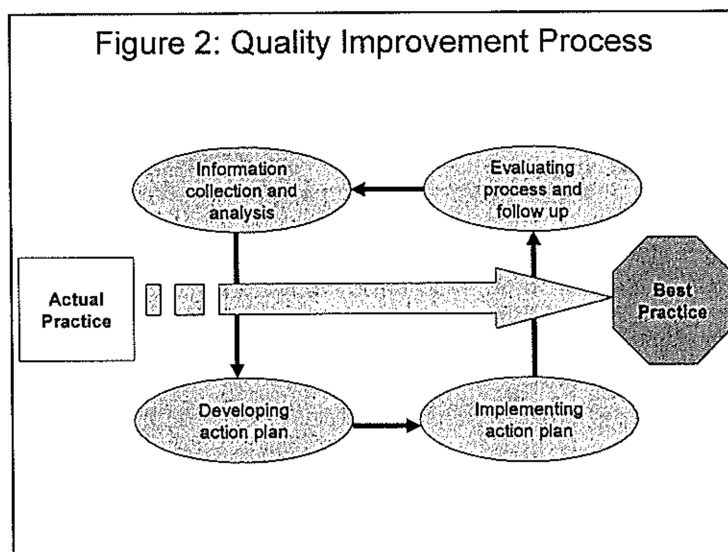
Figure 1: Framework for quality improvement (adopted from AMDD Program)

The factors involved in quality improvement include (fig 1): a) data collection to understand the current situation and practices for development of action plan; b) setting standards for EmOC/safe delivery services consistent with the national guidelines, and should be realistic and achievable; c) necessary renovation of facilities including maintenance; d) supply and maintenance of necessary equipment, logistic, supplies and drugs including setting up of the facility as per standards; e) quality training to the service providers for knowledge and skills update; f) team building exercise to specify the individual roles and responsibility of the team players; and g) establish mechanisms for internal (on-site) and external monitoring and support. Quality improvement is a continuous process that includes information collection and analysis, development of action plan based on existing information, implementation of the plan of action and follow-up and evaluation of the plan for re-planning (fig 2). Development of a quality improvement system to continuously improve and maintain quality of safe delivery/EmOC services is thus a challenge.

Objective

The ultimate goal of the project was to reduce maternal and neonatal morbidity and mortality. The overall objective of the approach was to improve quality and utilization of safe delivery/EmOC services at all the targeted facilities at Narsingdi based on clients' rights and providers' needs. The specific objectives were to:

- Conduct facility assessment to assess the room by room readiness for emergency response
- Adopt standards for safe delivery/EmOC services



- Supply of necessary equipment, supplies and logistics including minor renovation of facilities
- Address the training needs of different categories of service providers
- Establish a supportive supervision and monitoring system

Strategies

1. Facility assessment:

All the targeted facilities (n=8) were assessed under the project using a checklist (annex 1). The assessment provided basic information about the needs of equipments, staff training, infrastructure, including current status of facility readiness and quality of services. These information were being used to develop the facility-based action plan to improve quality and utilization of services.

2. Adaptation of national standards:

Before planning for quality improvement activities, it was imperative to set standards against which quality of services would be measured and monitored. The project set the standards adopting the available national documents, such as standard operating procedures for service providers of district hospitals and UHCs (DGHS 2004), standard management protocol for Emergency Obstetric Care and EmOC/midwifery training modules for nurses and doctors. The SMPP standards focus on the following issues:

2.1 Standards for facility set-up: This would address the room by room (emergency, delivery, OT and female ward etc.) set up of the facilities with essential equipment, logistics, supplies and drugs including the duty roster. This is primarily to minimize the third delay in getting obstetric care services at the facilities. Room by room set up would facilitate immediate management of obstetric emergencies before they receive specific treatment or referred to other EmOC centre. The government, under the reproductive health program (Women's Right to Life and Health project) supported by UNICEF, developed a standard checklist for room by room set up for facility readiness. The project adopted this checklist and training modules for nurses/FWVs and doctors to set the standards for the project and got approved by the government (through workshop).

2.2 Clinical standards: Clinical standards for obstetric case management cover the following areas:

- Management of obstetric complications including normal delivery and immediate newborn care
- Privacy, confidentiality, infection prevention practives (IPP) and cleanliness of the facility
- Clinical record keeping, and
- Record keeping and reporting

The Government in collaboration with OGSB developed basic standards for EmOC services, such as standard protocol for management of emergency obstetric cases. This project adopted this manual and EmOC/midwifery training materials to set the SMPP standards involving the service providers and stakeholders (through organizing a workshop) to develop ownership and make them realistic and achievable.

3. Facility set-up:

Once the standards were developed, all the targeted facilities should be equipped with necessary equipment, logistics and supplies as per requirement of standards. The project completed the facility assessment (adopting the tool for room by room set up) and identified the gaps. Based on assessment findings most of the facilities developed their own plan of actions addressing the gaps identified. JICA provided necessary equipment to most of the facilities in consultation with local and central concerned authorities. JICA's position was filling up the gap of government, if the MoHFW could

provide the equipment or any necessary items, then, the MoHFW should take care of them. Besides, it required discussion with the local management (district and Upazila level) on how to maintain supply of consumable items at the facilities including emergency drugs, since JICA did not support consumable items.

4. Minor renovation of facilities:

The assessment survey indicated that most of the facilities required minor renovation of the operation theatre (OT) and delivery room, such as renovation/establishment of hand washing facility, repair of roof, toilets, doors and windows etc. Initiative was taken to renovate the facilities especially the delivery room and OT. In the meantime, the OT of Polash and Raipura was renovated and the facilities were providing comprehensive EmOC services.

5. Capacity building of service providers and managers:

No matter what resources were available, responding effectively to the needs of an emergency obstetric case required staff, who were competent in appropriate procedures and had necessary skills. Therefore, to address the agreed upon standards, the service providers needed to be trained on specific issues as shown in table 2.

Table 2: Training needs of managers and different cadres of service providers (as of 2008)

Service provider/ manager	Type of training					
	Midwifery	AMTSL	IPP	Newborn care	Standard protocol	Facilitative supervision
UHFPO						Yes
RMO			Yes			Yes
MO-OG		Yes	Yes	Yes	Yes	Yes
MO-AN			Yes	Yes		Yes
MO-MCH		Yes	Yes	Yes		Yes
MO-Clinic		Yes	Yes	Yes	Yes	Yes
UFPO						Yes
Nurse/FWV	Yes	Yes	Yes	Yes		

5.1 Training for the nurses/FWVs: It was primarily the nurses and FWVs who conducted normal deliveries at the facilities. Table 3 shows the number of SSN/FWVs presented at the targeted facilities, their training status and needs at the time of assessment. The table shows that all the facilities had the sanctioned number of SSNs except for Sadar Hospital (9 vacant posts), Raipura UHC (3 posts were vacant) and Shibpur UHC (1 is vacant). To realistically cover 24-hour delivery services, the UHCs needed at least 4 and the district level hospitals needed 6 trained nurses in each of the facilities.

Some of the nurses (n=17) working at the facilities received training on midwifery. However, the number of trained nurses at the targeted facilities was found to be inadequate during the assessment survey.

Table 3: Status and requirements of EmOC training for the SSNs by facility (as of 2008)

Facility	No. of SSN/ FWV present	No. trained in EmOC/ midwifery	Target for the training*	No. required to train
District Hospital	27	1	6	5
Sadar Hospital	34	5	6	1

MCWC (FWV)	6	4	4	0
Shibpur UHC	8	1	4	3
Monohordi UHC	9	6	4	0
Raipura UHC	6	1	4	3
Palash UHC	9	1	4	3
Belabo UHC	9	2	4	2
Total	**108**	**21**	**36**	**17**

*Target: 6 per district level facility, 4 per UHC and 1 per FWC

Survey conducted by EngenderHealth revealed that although the service providers theoretically knew about the Active Management of 3rd Stage of Labour (AMTSL), but only a few of them could actually perform this as per standards. AMTSL is an evidence-based practice for prevention of PPH. All the nurses and FWVs (already trained or untrained) involved in assisting normal delivery need training on AMTSL.

Although the curriculum of nurses/FWVs training (midwifery) includes infection prevention practices (IPP) and immediate newborn care, but their actual practice in the facility setting needs to be evaluated. It was observed during assessment survey that IPP was not being practiced at some of the facilities due to lack of logistics and supplies (e.g., bleaching powder, buckets etc.). In summary, the training needs of nurses/FWVs for improvement of quality of services were as follows:

- Training on midwifery
- Training on active management of 3rd stage of labour (AMTSL)
- Training on infection prevention practices (including other staff handling the hospital waste products)
- Training on immediate newborn care and resuscitation (this training may be integrated with the training on AMTSL)

5.1.1 Training on midwifery [20 nurse/FWVs]: Several types of training were available for the nurses/FWVs under the MOH&FW. They included:

- **Six months regular training:** This training is conducted at the medical college hospitals for the nurses and at MCHTI for the FWVs.
- **Competency-based training:** The duration of this training is 4 months. This training is organized at the medical college hospitals and MCHTI for the doctors and nurses together. It is a very structured and effective training to improve the knowledge and skills.
- **Training on safe delivery:** This training is organized at the OGSB hospital and is competency-based. The duration of the training is **one month** and is found to be very effective.

Reviewing all the options, the project selected the training on safe delivery (midwifery) organized by the OGSB considering the short duration of the project (we had less than two years in hand to complete the project at that time) and quality of the training (annex 2).

5.1.2 Training on active management of third stage of labour [n=27]: This training (2-day course) was provided to the nurses and FWVs who had already been trained earlier (on midwifery or EmOC) and were involved in assisting normal delivery. The number of nurses and FWVs needed this training was 27. The project collaborated with OGSB for this training.

5.1.3 Training on infection prevention practices [8 batches]: This training (2-day course) was organized at all the district and upazila level facilities. The participants included all service providers

involved in clinical practice and handling of equipment, biological products etc. The project collaborated with EngenderHealth for this training (annex 3).

5.1.4 Training on immediate newborn care and resuscitation [8 batches]: The target group for this training (1-day long) were the service providers conducting delivery, such as doctors, nurses and FWVs. This was a hands-on skill-based training using anatomic model and conducted at the service facilities (district and Upazila) jointly by the project and paediatric consultant working at Sadar Hospital (annex 4).

5.2 Training for the MOs trained in OG and anaesthesia: There were only seven MOs trained in OG (n=4; Raipura, Monohordi, District Hospital and Sadar Hospital) and anaesthesia (n=3; Monohordi, Polash and Raipura), who needed refresher training on the following issues:

- Standard protocol for management of obstetric cases (this would cover Active management of 3rd stage of labour) [4 persons; only the MO OG]
- Infection prevention practices
- Immediate newborn care and resuscitation
- Training on facilitative supervision

6. Promoting clients' information rights:

The project adopted the rights-based approach, such as community participation (formation of UPIC, DPIC, involvement of local government and CmSS) in the process of planning, implementation and monitoring of the project. Having correct and accurate information about services is also the clients' rights. It was revealed during facility assessment survey that information about availability of services and drugs, information on clients' and providers' rights, and labelling of various rooms etc. were not uniformly available at the facilities. The facilities, however, could play an important role in promoting such information to the clients and their family members while they were visiting the facilities. In order to promote such information, following information boards/wall paintings were suggested to hang at the visible places at all the facilities (DH, SH, MCWC, UHCs and model union H&FWCs).

- Availability of services including opening and closing time (at the main gate)
- Labelling (wall painting) of various procedure rooms, such as emergency, labour room, OT, female ward, post-operative room, nurses' station, pharmacy, blood bank/laboratory etc.
- Clients' charter of rights
- Providers' charter of rights
- List of drugs available
- Client flow chart (may be wall painting)
- Information on maternal danger signs and birth planning
- Information on neonatal danger signs and good practices
- EOC information board

7. Strengthening of monitoring and supportive supervision:

Monitoring and supportive supervision is the continuous process and mainstay for improvement and sustainability of quality of services. Supportive supervision to the service providers should be provided in a non-threatening manner and from different levels of service delivery system. The district and national level managers (Program Managers, CS and DDFP) remained responsible for overall management and supervision of the facilities.

7.1 Monitoring of facilities

7.1.1 Local level supportive supervision: It was suggested that the MO/consultant trained in OG and anaesthesia provided supportive supervision to nurses at the facilities (DH, SH and UHC) on technical clinical issues, while the facility managers (UHFPO and RMO) provided supportive supervision on facility set up and IPP using checklist. Local level supervision at the MCWC was provided by the MO-Clinic and MO-MCH. Checklist was developed for this purpose (annex 5).

The local monitors will provide verbal feedback to the facility managers (UHFPO for the UHC and MOMCH & UFPO for H&FWC) about their observations to fill up the gaps (if there is any) and submit written report with recommendations. They will also discuss the issues at the EmOC/safe delivery team meetings (or monthly staff meetings) to solve the problems.

7.1.2 Supportive supervision:
The Project proposed to provide periodical but regular technical supportive supervision from the district as follows; however, it could not be realized due to no allocation of fund.

A quality assurance team would be formed, which includes the consultant OG, anaesthesia and paediatrics. They would provide technical supportive supervision to the MO OG and anaesthesia and nurses working at the comprehensive and basic EmOC facilities using checklist. Such monitoring would be done **initially once in every two months and subsequently once in every four months** as the situation improves. During the visit the team will check the room by room set up and will directly observe the management of obstetric cases (if available during the time of visit). The team would discuss with the service providers about one or two case studies (obstetric complications) commonly encountered in practice and would check the skills on anatomic models, as much as possible. The team would discuss with the service providers (especially the nurses) about the management of normal labour including AMTSL and would provide on-site mentoring/coaching. They would also identify further training needs of the staff to be addressed to fill up the gaps. The facilities having consultant OG and Anaesthesia may not need any supportive supervision from the district, because they already have post-graduation degree on the subject.

It was possible for the SMPP to fund for monitoring & supervision activities, however, the Project thought that we could not have a sustainable system in that way. Later, we found that monthly District Coordination meeting of both Health and FP sides are useful for monitoring purpose in some extents, reviewing the performance of all the public facilities and discussing the problems they faced.

7.1.3 Monitoring of MCWC: The DGFP got their own system of monitoring the quality of services through regional Quality Assurance Teams (QAT) at the MCWCs. This team monitored the activities of MCWC both for clinical and facility set-up parts.

7.1.3 Monitoring from national level
The Program Managers (and other relevant officials) from both the wings of MOH&FW monitored the performance of the facilities and provide necessary feedback and support to improve the quality of services. This type of monitoring was ad-hoc basis.

7.2 Monitoring by local government and people

Hospital Management Committee (HMC) was developed with the aim to involve the local government and representatives for monitoring and problem solving of public hospitals. It was a good initiative, however, it is rarely functioning. One reason of it is because the chairperson is local MP, he or she can hardly give a time for meeting. In Narsingdi, a local MP of Raipura Upazila was a Tele-communication Minister which made impossible to expect his presence in the HMC meeting. However, he delegated his authority to Upazila chairman and Upazila Chairman called meeting several times and contributed to improvement of Raipura UHC. Monohordi UHC also benefited by organizing HMC meeting: their local MP declared to provide a fund for repairing water line, toilets, and generator.

8. Maternal and neonatal death review:

Facility based data (2007) indicate that the case fatality rate (CFR) for maternal deaths for the whole district is 1.05 (overall) with wide variation of this rate from facility to facility (0 to 4.14%). CFR is an overall indicator for quality of EmOC services, and according to the UN indicators CFR should be less than 1%. It is therefore proposed to have maternal and neonatal death audits to review the situation and take necessary actions at the basic and comprehensive EmOC facilities. However, for maternal deaths, the number of such incidence at public hospitals is so low that the Project could not follow it up effectively. For neonatal deaths, the practice of death review was hardly realized.

The EOC teams monitored the maternal and neonatal deaths occurring at the facilities. They investigated maternal and neonatal deaths and discuss amongst themselves (in the EOC team meeting or monthly meeting) to develop action plan to avert such events in the future. District Coordination meeting also served to discuss the maternal death cases with all the public hospital managers.

9. Client exit interview:

The following client exit interview activity was proposed but not agreed by the local authorities.

To understand the quality of services from clients' perspective, exit interview of some (10-12) of the clients or their family members will be conducted and analyzed. The interview would be conducted periodically (quarterly) throughout the year. Clients selected would be of different types (different socio-economic group, primiparous or multiparous women and different medical conditions). The interview may be conducted by a staff (or a member of the UPIC who is not a staff member of the facility) competent in interviewing the clients. Exit interview questionnaire would be developed by the project.

10. Review and Evaluation:

The HI activities and hospital performance were evaluated at the District Workshop held in 9th June, 2009 and 21st January 2010. Overall, it was recognized that utilization of MNH services of public hospital had been constantly increasing. The action plans developed by hospitals were implemented mostly as they planned. The difficulties faced were primarily: equipment maintenance, regular monitoring, organization of regular EmOC team meeting, and human resource allocation. Some UHCs established fund for poor patients within the hospital. Another obstacle of this activity was a frequent change in managers, namely UHFPOs. This change hampered the implementation and continuity of activities seriously.

11. Conclusion:

The Hospital Improvement activity was a real challenge for SMPP. The shortcomings of public hospitals are overwhelming that one small project cannot make a meaningful difference. The experiences of SMPP in this activity have a lot of lessons learnt, that need to be utilized for the second phase. The following lesson learnt is particularly of importance:

- Capacity Development of Managers: knowledge and application of public health and hospital management is necessary for managers, however, it is weak and most mangers were not properly trained in this area. They are not delegated the authority to manage their hospitals properly either. The SMPP did not address this issue effectively. We examined the differences of reputed hospitals from ordinary hospitals. The biggest difference is the commitment of managers. The project itself encouraged the managers to be proactive and it was effective. However, there should be a systematic way of motivating managers continuously. The SMPP-2 will introduce the capacity development of managers through Chowgacha Model training program. It is planned to incorporate the experiences of implementing HL activities in Narsingdi to the new training program.
- Maintenance of equipment: this has been a problem of public hospitals for many years, and the MoHFW seems incapable of finding a feasible solution. The NEMEW/DEMEWs are not functioning to respond to the needs. There is not enough budget allocation to District/Upazila to deal with the problems locally. If local level planning is strengthened with adequate budget allocation, this problem may be minimized. SMPP organized Medical equipment maintenance training in Narsingdi in collaboration with NEMEW. This training was for junior mechanics and hospital staff who use basic equipment regularly to learn daily operation and maintenance of the equipment. This training may be expanded to other districts.
- EmOC team: this group was a core of hospital improvement activity and it should be functioning as pre the government order. However, most hospitals do not have it or do not know about it. Even they agree to establish EmOC team, it was difficult for them to organize regular meetings and activities. First of all, the hospital staff are not habituated to have a regular meeting. The managers also feel if they call for a meeting, they need to entertain the participants from their pocket money. It was obvious that the hospital did not regard team work as important so that they also disregard the staff meeting. It was simply difficult to overcome all those issues. From observation, once the meeting was held, the hospital staff had meaningful discussions and did solve some of their problems. It may be a matter of get used to it as a regular practice and for this purpose, a strong government order from central level can be helpful.
- Human resource: It was a common incidence of public hospitals in Bangladesh that services are interrupted due to staff transfer or absence and the patients are victims of it. There is no sound policy to control staff posting and transfer at the national level. This is a critical problem and one small project cannot do much to change it. However, even within the limitations, SMPP tried to address some of the problems at District level. For example, the CS can shift doctors from one hospital to another responding the needs of hospitals. Local government can help to fill up the posts of casual staff like aya and guards. In SMPP-2, public private partnership on HR management can be piloted where it is feasible.

Guideline for using Quality Assurance Checklist

The quality assurance (QA) checklist is the checklist to assess the quality of EmOC services of public hospitals in Narsingdi district on pilot basis. Following is the guideline for using the checklist. However, the facility manager may adopt the guideline according to the local situation and needs.

- The health facilities should be assessed quarterly using the QA checklist.
- The facility should be assessed by a small group of service providers, who are the members of the EOC team. The team may include RMO, consultant/MO trained in OG, Consultant/MO trained in anesthesia, and a senior staff nurse. However, the EOC team members can decide about the QA team composition for doing the job.
- In order to fill up the checklist, the team will visit all the rooms one by one as mentioned on the checklist and collect relevant information from the person in-charge (mentioned on the checklist) and through observation.
- The team will then sit together to sum up the total score (count 1 for "Yes" and 0 for "No") for each of the rooms and calculate the percentage. They will also calculate the total score and percentage for the whole facility adding up the scores obtained by each of the rooms. At the end of the assessment and based on assessment findings, the team will provide feedback and recommendations for improvement of quality of services.
- The findings will then be shared with the facility manager and present in the subsequent EOC team meeting for discussion and making an action plan for implementation. To visualize the current situation and changes, the team may consider making bar graphs with the scores (percentage) obtained over time. This would help the service providers understand the trend over time.
- A copy of the findings should be send to the Civil Surgeon/DDFP for information. A copy should also be forwarded to the Program Manager, RHP (DGHS/DGFP) for information and necessary action.

Quality Assurance Checklist for EmOC Services

1. General Information

Date of visit: ______________________

Name of facility visited: ______________________

Name of QAT members with designation:
1. ______________________
2. ______________________
3. ______________________
4. ______________________
5. ______________________

2. Human resources for EOC services

Human Resources	No.	Comments
1. Medical Officer (MO) trained in Obs & Gyne		
2. Consultant Obs & Gynae		
3. MO trained in anesthesia		
4. Consultant anesthesia		
5. MO trained in safe blood transfusion		
6. Nurses trained in EOC/Midwifery		
7. Lab technologist trained in safe blood transfusion		
8. Cleaner/sweeper		
9. Aya		

3. Availability of EmOC services (services provided during last 3 months)

Services	Yes	No	Comments
1. Use injectable antibiotics			
2. Use injectable anticonvulsants (e.g., diazepam, magnesium sulphate)			
3. Use injectable oxytocics (e.g., Oxytocin)			
4. Conduct manual removal of placenta			
5. Perform manual vacuum aspiration and/or DE&C			
6. Conduct assisted vaginal delivery (ventose or forceps)			
7. Perform caesarian section			
8. Provide safe blood transfusion			
9. Normal delivery			
10. ANC			
11. PNC			

4. EmOC status of the facility

1. Comprehensive EmOC (1-8 functions done)	2. Basic EmOC (1-6 functions done)	3. No EmOC (Otherwise)
Reasons for not providing comprehensive or Basic EmOC services:		

5. EmOC service statistics (statistician/SSN)

Services	No. performed		Comments
	Last month	Last 3 months	
1. ANC			
2. PNC			
3. Obstetric admissions			
4. Normal delivery			
5. Manual removal of placenta			
6. Manual vacuum aspiration and/or DE&C			
7. Assisted vaginal delivery (ventose or forceps)			
8. Caesarian section			
9. Safe blood transfusion			
10. Obstetric complications treated			
11. Obstructed labour			
12. Pre-eclampsia and eclampsia			
13. APH/PPH			
14. Complications of abortions			
15. Puerperal sepsis			
16. Maternal deaths			
17. Still births			
18. Neonatal deaths			
19. Referred in			
20. Referred out			

6. General management (RMO)

	Yes	No	Comments
1. EOC team formed			
2. Facility action plan developed			
3. Conduct EOC team meeting regularly (monthly or bimonthly) [check the minutes]			
4. Conducts maternal death review			
5. Conducts neonatal death review			
6. EOC information board present with updated data			
7. Monthly EOC report sent regularly			
Total score:			**% achieved:**

7. Out-patient department (RMO)

	Present	Absent	Comments
1. Service information board			
2. Clients' charter of rights			
3. Providers' charter of rights			
4. Drug list			
5. Seating arrangements for OPD patients			
6. Provide regular health education at OPD (check the register)			
Total score:			**% achieved:**

8. ANC/PNC room/corner (ANC/PNC in-charge)

	Present	Absent	Comments
1. BP machine			
2. Stethoscope			
3. Foetoscope			
4. Weighing scale (adult)			
5. Measuring tape			
6. Examination bed			
7. Does the provider check BP, weight, anemia, edema etc. (cross check with one or two clients)			
8. Does the provider check the abdomen (position, fetal heart sound etc.) [cross check with one or two clients]			
9. Maintains privacy			
10. Counsel mother on birth planning, nutrition and exclusive breast feeding			
11. Maintains register			
Total score:			**% achieved:**

9. Emergency room (emergency room in-charge: EMO/SSN)

	Present	Absent	Comments
1. Running ambulance			
2. Hand washing facility with running water			
3. Trolley/wheel chair/stretcher			
4. Person to transfer patient			
5. Examination table			
6. IV stand			
7. IV fluid (normal saline, DNS etc.)			
8. BP machine			
9. Stethoscope			
10. Thermometer			
11. Filled Oxygen cylinder			
12. Decontaminates equipment with 0.5% chlorine solution			
13. Maintains privacy			
14. Duty roaster			
Total score:			**% achieved:**

10. Operation theatre (OT in-charge/MO AN) [Omit this section if it is basic EmOC centre]

Equipments in functioning state	Present/ Yes	Absent/ No	Comments
1. Anesthesia machine			
2. Laryngoscope			
3. Endotracheal tube			
4. OT light			
5. OT table			
6. Three C-section sets			
7. At least one C-section set ready for use (sterile)			
8. One DE&C set or manual vacuum aspirator ready for use (sterile)			
9. Filled Oxygen cylinder			
10. Filled Nitrous oxide cylinder			
11. Spinal needle			
12. Sucker machine			
13. Diathermy machine			
14. Autoclave			
15. Sterilizer (electrical or burner type)			
16. BP machine			
17. Stethoscope			
18. Ambu bag (adult and baby)			
19. Baby weighing scale			
20. Sterile gloves			
21. Sterile gown			
22. Air conditioner			
23. Emergency light (generator or charger)			
24. Spinal anesthetic			
25. General anesthetic			
26. Emergency drug list			
27. Decontamination done with 0.5% chlorine solution			
28. Hand washing facility with running water and elbow tap			
29. Maintains privacy			
30. OT cleaned (mopped) daily			
31. OT table and instrument trolleys decontaminated (with 0.5% chlorine solution)			
32. OT register maintained properly (check)			
Total score:			**% achieved:**

11. Delivery room (labour room in-charge):

Functioning equipment and logistics	Present/ Yes	Absent/ No	Comments
1. Delivery table			
2. Spot light			
3. Sucker machine			
4. Sterilizer (electrical)			
5. Baby weighing scale			

Functioning equipment and logistics	Present/ Yes	Absent/ No	Comments
6. Filled oxygen cylinder			
7. Ambu bag (adult)			
8. Ambu bag (child)			
9. Three normal delivery sets			
10. Three episiotomy sets			
11. At least one delivery set ready for use (sterile)			
12. At least one episiotomy set ready for use (sterile)			
13. Vacuum extractor (ventose)			
14. Sterile obstetric forceps			
15. Instrument trolley			
16. Baby tray			
17. Mucous sucker for neonates			
18. BP machine			
19. Stethoscope			
20. Measuring tape			
21. IV stand			
22. Sharp disposal container			
23. Emergency light			
24. Sterile gloves			
25. Catheter			
26. Gown, musk and cap			
27. Emergency drug list available			
28. Allows choice of position for delivery			
29. Restricts use of episiotomy			
30. Uses partograph (check)			
31. Decontaminates equipment with 0.5% chlorine solution			
32. Cleans (mopped) delivery room daily			
33. Decontaminates delivery table and instrument trolley with 0.5% chlorine solution			
34. Practices active management of 3rd stage of labour (check with the SSN)			
35. Practices delayed cord cutting			
36. Baby dried and wrapped immediately after birth			
37. Baby put onto the breast within 30 minutes			
38. Neonatal resuscitation done (if necessary)			
39. Maintains privacy			
40. Hand washing facility with running water			
41. Takes birth weight			
42. Provides post-partum vitamin A supplementation to mother			
43. Closely observe mother for at least 2 hours			
44. Maintains delivery register (check if all the columns are filled up)			
45. Duty roster			
Total score:			**% achieved:**

12. Female/obstetric ward (ward in-charge)

Functioning equipment and logistics	Present/ Yes	Absent/ No	Comments
1. Beds ready for receiving patients			
2. Bed side locker			
3. BP machine			
4. Stethoscope			
5. Thermometer			
6. IV stand			
7. Filled oxygen cylinder			
8. Ambu bag (adult)			
9. Ambu bag (baby)			
10. Sharp disposal container (at nurse's station)			
11. Indoor register maintained properly (Check if all columns are filled up)			
12. EOC reporting forms			
13. Cleanliness			
14. Patients' clinical history writing satisfactory (presenting complaint, history in brief, physical examination, diagnosis)			
15. PTR (pulse, temperature and respiration) chart hanged from the bed			
16. Uses magnesium sulphate for treatment of eclampsia			
17. Health education material			
18. Provides health education at IPD			
Total score:			**% achieved:**

13. Laboratory/blood supply room (medical technologist) [Omit this section if it is basic EmOC centre]

	Present	Absent	Comments
1. Blood grouping reagents (ABO and RH)			
2. All five screening kits/reagents (hepatitis B&C, syphilis, HIV and malaria)			
3. Blood collection bag with set			
4. Disposable syringe			
5. BP machine			
6. Stethoscope			
7. Refrigerator (functioning)			
8. Medical technologist is on call			
9. Maintains register (check)			
Total score:			**% achieved:**

14. Overall achievements

Overall total score: 142 for comprehensive and 101 for basic EmOC facility	**Score obtained:**
Overall achievement: [(score obtained ÷ overall total score) × 100]	= %

15. Prepare case study (2 to 3) to assess the knowledge and skills of MO trained in OG and anesthesia and nurses based on standard protocol. Comments on case study:

16. Actions taken by the QAT:

17. Recommendations:

Note: Please provide a copy of this report to concerned UHFPO, Civil Surgeon (Norsingdi) and Program Manager, Reproductive Health Program, DGHS

Assessment Tool for DH/Sadar Hospital/ MCWC/UHC for Emergency Obstetric Care Services

1. Basic Information

- Date of data collection:
- Name of the data collector:
- Name of the facility visited:
- Population of the District/Upazila:
- Persons met/interviewed:
  1.
  2.
  3.
  4.
  5.
  6.
  7.
  8.
  9.
  10.

2. Infrastructure and utilities

		Comment on whether the rooms are in using condition or require renovation etc.
• Emergency room	1. Present 2. Absent	
• Labour room	1. Present 2. Absent	
• Operation theatre	1. Present 2. Absent	
• Change room	1. Present 2. Absent	
• Scrub room	1. Present 2. Absent	
• Autoclave room	1. Present 2. Absent	
• Female ward	1. Present 2. Absent	
• Post operative ward/room	1. Present 2. Absent	
• No. of beds in the post operative ward/room (if present):		

		Comment on whether the rooms are in using condition or require renovation etc.
• Running water supply	1. Present 2. Absent	
• 24-hour electricity	1. Present 2. Absent	
• Staff quarter		

3. Services available, especially related to EmOC

3.1. EmOC Status of the facility

[1] No EmOC
[2] Basic EmOC
[3] Comprehensive EmOC

Is the centre currently providing (or capable of providing) following services?

Services	Yes	No	Comments (Please comment if the facility has provided such services during last 3 months)
• Use injectable antibiotics			
• Use injectable anticonvulsants (e.g., diazepam, magnesium sulphate)			
• Use injectable oxytocics (e.g., methergin, oxytocin)			
• Conduct manual removal of placenta			
• Perform manual vacuum aspiration and/or DE&C			
• Conduct assisted vaginal delivery (forceps or ventose)			
• Perform caesarian section			
• Provide blood transfusion			

3.2. Does the centre provide the following services regularly?

Services	Yes	No	Comments
• Normal delivery			
• Newborn care (birth asphyxia, newborn infection, diarrhea, ARI etc.)			

Services	Yes	No	Comments
• Health education at OPD and IPD			
• ANC			
• PNC			
• FP services			
♦ Oral contraceptives			
♦ Condoms			
♦ Emergency pills (ECP)			
♦ Injectable contraceptives			
♦ IUD insertion & removal			
♦ Norplant			
♦ Ligation			
♦ Vasectomy			

4. Human Resources:

Human resources	No. of posts	No. present	Comments (e.g., residential or non-residential, duration of training, interested for training etc.)
• Hospital Superintendent			
• UHFPO			Please mention if s/he has received any management training?
• RMO			Please mention if s/he has received any management training?
• Consultant OG			
• Consultant AN			
• Consultant surgery			
• Consultant medicine			
• Medical Officer (UHC)			
• Medical officer (MO Clinic and MO MCH-FP)			
• Medical officer, trained in OG			
• Medical Officer, trained in Anaesthesia			
• UFPO			
• Nurses			

Human resources	No. of posts	No. present	Comments (e.g., residential or non-residential, duration of training, interested for training etc.)
• Nurses, trained in EOC			
• Asstt. Family Welfare Officer (MCH)			
• FWV			
• FWVs trained in midwifery/EOC			
• Medical technologists (lab)			Please mention if s/he is trained on blood grouping and cross matching.
• Pharmacist			
• Health inspector			
• Statistician			
• Store keeper			
• Driver			
• Guard			
• Aya			
• Sweeper/cleaner			

5. Equipment, logistics and supplies:

Equipment/logistics	Status	Comments
• Ambulance	[1] Present (running condition/not in running condition) [2] Absent	
• Seats (bench/tool/ chair) in the OPD for waiting patients	[1] Yes, adequate [2] Yes inadequate [3] No	
Emergency room:		
• Trolley	[1] Present [2] Absent	
• Wheel chair	[1] Present [2] Absent	
• Stretcher	[1] Present [2] Absent	
• IV stand	[1] Present	

Equipment/logistics	Status	Comments
	[2] Absent	
• Examination table	[1] Present [2] Absent	
• Electric sterilizer	[1] Present [2] Absent	
• Sucker machine	[1] Present [2] Absent	
• Oxygen	[1] Present [2] Absent	
• BP machine	[1] Present [2] Absent	
• Stethoscope	[1] Present [2] Absent	
• Thermometer	[1] Present [2] Absent	
Operation theatre:		
• Anaesthesia machine	[1] Present (functioning / non-functioning) [2] Absent	
• Laryngoscope (adult)	[1] Present (functioning / non-functioning) [2] Absent	
• Baby laryngoscope	[1] Present [2] Absent	
• Endotracheal tube (adult)	[1] Present [2] Absent	
• Pediatric endotracheal tube	[1] Present [2] Absent	
• Airway tube (adult)	[1] Present [2] Absent	
• Baby airway tube	[1] Present [2] Absent	
• Filled Oxygen cylinder	[1] Present (#: [2] Absent	
• Filled Nitrous oxide cylinder	[1] Present (#: [2] Absent	No.
• Spinal needle	[1] Present (no.: [2] Absent	
• Functioning OT table	[1] Present [2] Absent	
• Functioning OT light	[1] Present [2] Absent	
• Functioning spot light	[1] Present [2] Absent	
• Instrument trolley	[1] Present [2] Absent	
• Sucker machine	[1] Present [2] Absent	

Equipment/logistics	Status	Comments
• Diathermy machine	[1] Present (functioning / non-functioning) [2] Absent	
• Working caesarian section set	[1] Present (#: [2] Absent	
• Working DE&C Set or manual vacuum aspirator	[1] Present [2] Absent	
• BP machine	[1] Present (functioning / non-functioning) [2] Absent	
• Stethoscope	[1] Present [2] Absent	
• IV fluid stand	[1] Present [2] Absent	
• Ambu bag (adult)	[1] Present (functioning / non-functioning) [2] Absent	
• Ambu bag (child)	[1] Present (functioning / non-functioning) [2] Absent	
• Air conditioner	[1] Present (functioning / non-functioning) [2] Absent	
• Doctor's gown, musk and cap	[1] Present [2] Absent	
• Patient's gowns	[1] Present [2] Absent	
• Sterile gloves	[1] Present [2] Absent	
• Autoclave	[1] Present (functioning / non-functioning) [2] Absent	Comment if register is maintaoned.
• Autoclave indicator paper	[1] Present [2] Absent	
• Sterilizer (electrical)	[1] Present (functioning / non-functioning) [2] Absent	
• Baby weighing scale	[1] Present [2] Absent	
• Generator	[1] Present, functioning/ not functioning [2] Absent	
• Pulse oxymeter	[1] Present, functioning/ not functioning [2] Absent	
• Buckets for decontamination	Present Absent	

Equipment/logistics	Status	Comments
Labour room:		
• Labour table	[1] Present (functioning / non-functioning) [2] Absent	
• Functioning spot light	[1] Present [2] Absent	
• Working normal delivery set	[1] Present [#: [2] Absent	
• Episiotomy set	[1] Present [#: [2] Absent	
• Instrument trolley	[1] Present [2] Absent	
• Vacuum extractor (ventose)	[1] Present (functioning / non-functioning) [2] Absent	
• Obstetric forceps	[1] Present [2] Absent	
• Mucous sucker for neonates	[1] Present [2] Absent	
• Sucker machine with tube	[1] Present [2] Absent	
• IV stand	[1] Present [2] Absent	
• Sterilizer (electrical)	[1] Present (functioning / non-functioning) [2] Absent	
• Ambu bag (adult)	[1] Present (functioning / non-functioning) [2] Absent	
• Ambu bag (child)	[1] Present (functioning / non-functioning) [2] Absent	
• Foetal monitor	[1] Present (functioning / non-functioning) [2] Absent	
• BP machine	[1] Present (functioning / non-functioning) [2] Absent	
• Stethoscope	[1] Present [2] Absent	
• Thermometer	[1] Present [2] Absent	
• Baby weighing scale	[1] Present [2] Absent	
• Sterile gloves	[1] Present [2] Absent	
• Gown, musk and cap	[1] Present [2] Absent	

Equipment/logistics	Status	Comments
• Filled Oxygen cylinder	[1] Present (#: [2] Absent	
• Catheter	[1] Present [2] Absent	
• Cat gut (2.0)	[1] Present [2] Absent	
• Cotton ball container	[1] Present [2] Absent	
• Lifter	[1] Present [2] Absent	
• Baby tray	[1] Present [2] Absent	
• Steel tray with cover (Instrument tray)	[1] Present [2] Absent	
• Kidney tray	[1] Present [2] Absent	
• Plastic sheet	[1] Present [2] Absent	
• Mackintosh	[1] Present [2] Absent	
• Emergency light (torch or charger light)	[1] Present [2] Absent	
• Buckets for decontamination	[1] Present [2] Absent	
• Plastic bowl	[1] Present [2] Absent	
Obstetric/female ward:		
• Bench/chair for attendant	[1] Present, adequate [2] Present, inadequate [3] Absent	
• BP machine	[1] Present (functioning / non-functioning) [2] Absent	
• Stethoscope	[1] Present [2] Absent	
• Thermometer	[1] Present [2] Absent	
• Filled Oxygen cylinder	[1] Present [2] Absent	
• Sucker machine	[1] Present [2] Absent	
• Phototherapy machine	[1] Present (functioning / non-functioning) [2] Absent	
• Incubator	[1] Present (functioning / non-functioning) [2] Absent	

Equipment/logistics	Status	Comments
• Weighing scale (adult)	[1] Present (functioning / non-functioning) [2] Absent	
• Measuring tape	[1] Present [2] Absent	
• Health education materials	[1] Present (adequate / inadequate) [2] Absent	
Blood bank/Lab:		
• Blood grouping and cross matching reagents	[1] Present [2] Absent	
• Blood bag	[1] Present [2] Absent	
• Functioning refrigerator	[1] Present [2] Absent	
• BP machine	[1] Present [2] Absent	
• Stethoscope	[1] Present [2] Absent	

6. Emergency drugs:

Drugs	Status	Comment
Inj. Diazepam	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Magnesium Sulphate	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Methergine	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Oxytocin	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Adrenaline	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Ephidrine	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Aminophylline	[1] Present, adequate [2] Present, inadequatc [3] Absent	
Inj. Hydrocortisone	[1] Present, adequate [2] Present, inadequate	

Drugs	Status	Comment
	[3] Absent	
General anaesthetics (nitrous oxide, halothane, and others) and resuscitation drugs	[1] Present, adequate [2] Present, inadequate [3] Absent	
Spinal anaesthetics	[1] Present, adequate [2] Present, inadequate [3] Absent	
Normal saline	[1] Present, adequate [2] Present, inadequate [3] Absent	
Dextrose saline	[1] Present, adequate [2] Present, inadequate [3] Absent	
Hartman's Solution	[1] Present, adequate [2] Present, inadequate [3] Absent	
Plasma expanders (Hemoccle)	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Ampicilin	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Gentamycin	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Ceftriaxon	[1] Present, adequate [2] Present, inadequate [3] Absent	
Inj. Metronidazole	[1] Present, adequate [2] Present, inadequate [3] Absent	

7. EOC performance of last year (January to December 2007)

Services	No.	Comments
No. of obstetric admissions		
No. of normal deliveries conducted		
No. of pregnancy complications admitted and treated		Note: pregnancy complications are APH and PPH Prolonged/obstructed labour Post-partum sepsis Complications of abortion Pre-eclampsia/Eclampsia Ectopic pregnancy Ruptured uterus

Services	No.	Comments
No. of caesarean sections done		
No. of uterine evacuation (DE&C) done		
No. of assisted vaginal deliveries done (forceps/vacuum extractions)		
No. of destructive operations done		
No. of blood transfusions given		
No. of maternal deaths		
No. of neonatal deaths		
No. of still births		
No. of obstetric cases referred and place of referral		

7.1. Common obstetric complications treated at the facility (please rank them, e.g., use the scale 1-5, where 1 is for the most frequent complications encountered):

- Hemorrhage (APH and PPH) (rank:)
- Prolonged/obstructed labour (rank:)
- Post-partum sepsis (rank:)
- Complications of abortion (e.g., incomplete and septic abortions) (rank:)
- Pre-eclampsia/Eclampsia (rank:)
- Ectopic pregnancy (rank:)
- Ruptured uterus (rank:)
- Retained placenta (rank:)
- Others (specify): ______________________________

7.2. Causes of maternal deaths (if there is any) (please rank them, e.g., use the scale 1-5, where 1 is for the most frequent cause):

- Pre-eclampsia/eclampsia (rank:)
- APH/PPH (rank:)
- Septic abortion (rank:)
- Obstructed labour (rank:)
- Ruptured uterus (rank:)
- Incomplete abortion (rank:)
- Ectopic pregnancy (rank:)
- Others (specify): ____________

7.3. Commonly referred obstetric cases are:

- Hemorrhage (APH and PPH)

- Prolonged/obstructed labour
- Post-partum sepsis
- Complications of abortion (e.g., incomplete and septic abortions)
- Pre-eclampsia/Eclampsia
- Ectopic pregnancy
- Ruptured uterus
- Retained placenta
- Others (specify): ____________________

7.4. Reasons for referral:

7.5. Referred to:

7.6. **If the center is not currently providing basic or comprehensive EOC services, then**

7.6.a. What are the minimum requirements to start basic EOC services:

7.6.b. What are the minimum requirements to start comprehensive EOC services:

8. MIS, monitoring and reporting:

	Status	Comments
OT register	[1] available and maintained [2] available but not properly maintained [3] not available	
Indoor (ward) register	[1] available and maintained [2] available but not properly maintained [3] not available	

	Status	Comments
Delivery register	[1] available and maintained [2] available but not properly maintained [3] not available	
EOC Emergency stock register	[1] available and maintained [2] available but not properly maintained [3] not available	
MIS reporting forms	[1] available and use [2] available but don't use [3] not available	
EOC team (or other committee to monitor the EOC activities)	[1] Developed [2] Not developed	
Monthly EOC team review meetings (check the minutes)	[1] Held regularly (check minutes) [2] Held but irregularly [3] Not at all	
Other committees (Upazila/district health committee) meetings	[1] Held regularly (check minutes) [2] Held but irregularly [3] Not at all	

9. Technical supervision/post training supportive supervision

	Status	Comments
Does the EOC trained staff (MO, Nurse, Lab Tech) receive supportive supervision at the facility	[1] Yes [2] No [3] Not at all	
If so, how frequently		
Who provides technical /supportive supervision		

10. Quality of services:

	Yes / No	Comments
Proper history writing of admitted patients		
Emergency drug list available at OT		

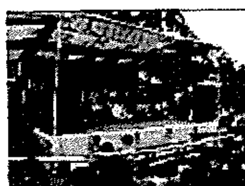
	Yes / No	Comments
Emergency drug list available at laborer room		
Sterile delivery set ready for use at labour room (and #)		
Sterile CS set ready for use at OT (and #)		
Practice hand washing before procedure		
Decontamination done with chlorine solution (dress, gloves, instruments, placenta etc.) at labour room and OT		
Sterilization/Autoclaving done to sterilize the equipment		
Use standard protocol for obstetric case management		
Use Partograph		
Use Magnesium Sulphate in Eclampsia		
Practice active management of third stage of labour		
Keep the baby warm after delivery (no bath, drying and wrapping)		
Provide postnatal Vit A supplementation		
Initiate breast feeding within half an hour of delivery		
Counsel mothers on exclusive breast feeding		
Counsel mothers on nutrition, breast feeding, family planning, newborn care, postnatal visit during discharge		
Maternal death review done		
Maintain privacy of the patients (at delivery room, OT and ward)		
Cleanliness of the facility (also check the toilets)		
Sharps are disposed properly		
Waste are disposed properly (dumping and/or incineration)		

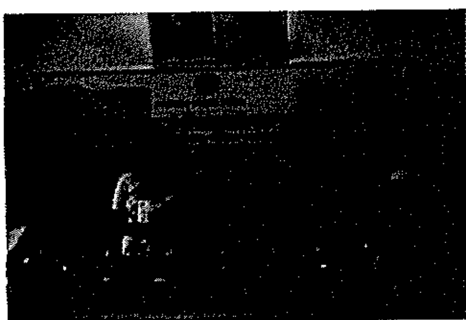
What are your recommendations to further improve the EOC/safe delivery services at your facility?

Thank you for your participation.

別添資料 2

Model Union Approach Report





Safe Motherhood Promotion Project (SMPP)
Ministry of Health and Family Welfare, supported by JICA
June, 2011

1. Background

Safe Motherhood Promotion Project (SMPP) was a project of Ministry of Health and Family Welfare (MoHFW) initiated in July 2006 and ended in June 2011. Japan International Cooperation Agency (JICA) was requested to be a technical partner of the project and jointly selected Narsingdi district as a pilot site. The project aimed at improving health status of pregnant and postpartum women and neonates in the targeted area during five years of the implementation. The project was expected to produce three outputs:

1. Necessary decisions are made at central level through sharing good practices and lessons learned of the project
2. Safe delivery service system is strengthened
3. Women and neonates are supported to utilize obstetric and neonatal care

Narsingdi district is located two hours distance from Dhaka and populated over 2,300,000 people within six Upazilas. Narsingdi belongs to the industrial belt creating a good number of job opportunities to the local residents. When the SMPP was started in 2006, although Narsingdi had geographical and economical advantages compared to other areas, the health indicators did not reflect those advantages, e.g. the child mortality rate is higher than national figure and low utilization of ANC and PNC services was reported. This was one of reasons the SMPP selected Narsingdi as a pilot area, and its proximity from Dhaka which significantly reduce the burden for project management was also considered.

The SMPP intended to demonstrate effective and feasible practices for reduction of maternal and neonatal death. Considering the complexity of MNH issue created by the health system itself and cultural and socio-economical factors, SMPP strategically decided to take comprehensive interventions in the focused areas to validate the effectiveness of the approach within the limited timeframe. **"Model Union Approach"** was designed as a possible intervention to contribute to this end. This document is an overview of the Model Union approach, explaining the concept of model union, its interventions, achievements, and lessons learned based on our experiences in Narsingdi district.

2. Goal of "Model Union Approach" and its advantage

The goal of Model Union is to contribute to ***the reduction of maternal and neonatal mortality and morbidity in the selected unions.***

The Model Union is a holistic approach to address the maternal and neonatal health issues in the union. There are many factors affected in the conditions of mothers and neonates such as socio-economic, cultural, gender, availability and accessibility of health services and its quality. The Model Union approach captures all the critical factors as much as possible to improve the maternal and neonatal health status. Another strength of the Model Union approach is that it is inclusive: most important stakeholders are involved in the Model Union with a clear role to play. Monitoring is carried out by using quantitative indicators which helps the people involved to understand any progress or changes made as a result of their activities.

3. Selection of Model Union

Nine Model Unions were selected in the early 2008 as a first trial based on the selection criteria as follows:

- Relatively better communication
- Active (e.g., residential) FWV posted at union level facility (H&FWC or Sub center)
- Proactive UP chairman

In order to promote delivery assisted by FWV at FWC, it is important condition that a FWV resides the staff quarter attached with FWC or live close to FWC. However, the project experienced a difficulty finding FWVs who reside at FWC. Most FWVs commuted to her working areas from nearby town or Narsingdi. Besides, some Model Union FWVs were suddenly transferred to other unions, which interrupted Model Union activity and affected performance severely. As a consequence, for the selection of new model unions in the late 2009 the selection focus was shifted more to the willingness of Union Parishard chairman who possibly saw more benefits of becoming a Model Union. For expansion of Model Union, the project only checked the commitment of FWV and her performance, not her residential status.

By the end of the Project, the total number of Model Unions in Narsingdi reached to 29 unions.

4. Packaged interventions under Model Union

The following core package of interventions was introduced in the Model Unions:

- Regular meeting and performance review by **Safe Delivery Team**
- Development of **Model Union Action Plan** and its implementation
- Union Health Facility improvement based on the assessment
- ANC/PNC & Midwifery Training for FWV and CSBA
- **Community Mobilization** activity (ANC/PNC campaign, promotion of BP and matir bank distribution to pregnant mother, best performance award, Blood grouping, etc)
- TBA/Village Doctor orientation (prevention of harmful practices)
- Promotion of Citizen Charter
- Regularization of **Union Coordination Committee Meeting (UCCM)**
- Open budget session and allocation of UP budget to MNCH activities

The generalized explanation of the packaged interventions of model union under SMPP is as follows:

1) Regular meeting and performance review by Safe Delivery Team

During the Action Planning meeting, the Model Union formed Safe Delivery Team (SDT) with agreed membership and ToR. The SDT decided the frequency (usually monthly or bi-monthly) and the date of the SDT meeting (usually around 15th of the month, the date that the field staffs come to the FWC to submit their monthly report).

The objectives of SDT were:

- To share MNH information between formal (GoB staff) and informal (TBAs, VDs) care providers
- To improve availability and quality of MNH services at Union level
- To promote community mobilisation for understanding of safe motherhood issues
- To strengthen linkage between community (local government) and Union level health facility

The members of SDT found FWV (leader), SACMO, FPI, FWAs, CSBAs, TBAs, Village Doctors, UP members, and CmSS members. The activities of SDT were: organizing regular meeting; reporting the activity to Union Parishard (usually in the UCCM); monitoring the Model Union action plan implementation; organizing technical session; death case review; and problem discussion and solving.

Along with regular performance review by SDT, service delivery performance of the catchment area was posted in the service centers and updated monthly.

2) Development of Model Union Action Plan and its implementation

The Model Union Action Plan was developed in the participatory Planning meeting. There were two types of actions (facility and community) combined in the Model Union Action Plan (annex 1: a sample Model Union Action Plan).

The facility-based action plan includes the activities that would be implemented by the union level facility (H&FWC or Sub Centre) and at Satellite Clinics and EPI outreach centers.

The community-based action plan includes the activities implemented in the community, such as community awareness raising and educational activities, establishment of emergency transportation system, development of CmSS and strengthening of referral linkage, etc.

The planning meeting (half-day long) had specific objectives that were:

- To share the facility assessment findings and the performance of the facility including the baseline survey findings and achievements of existing model unions
- To develop a safe delivery team
- To identify areas to improve (objectives/outputs)
- To develop a realistic action plan to improve quality and utilization of MNH services
- To identify mechanism to monitor progress (how the implementation progress of action plan will be checked)

Since the question of whether normal delivery assistance at FWC is promoted or not could make a deference in the facility-based plan at the union, each union needed to decide on the availability of delivery assistance at FWC in the planning meeting. It should be kept in mind that the government policy encourages every governmental union level facility to provide delivery assistance services. However, it is not helpful if a FWV is forced to give a positive answer without any commitment.

Based on delivery assistance service provision, the facilities can be divided by 3 categories as follows.

Category 1: The facility which is currently providing delivery assistance service

This category union needs to discuss on "how to improve the number and the quality of current delivery assistance service", and include the necessary measures in the action plan.

Category 2: The facility which has intention of starting delivery assistance service

This category union needs to discuss on the necessary steps to be taken for starting delivery assistance service at the facility

Category 3: The facility which does not have a plan to initiate delivery assistance service

This category union needs to discuss on "in which way the facility can contribute to improving safe delivery service without providing delivery assistance", and would include the possible measures in the action plan.

The action plan was implemented by the all related personnel in the Union as proposed. The UHFPO/UFPO/MO-MCH as well as the Union chairman provided necessary support to facilitate implementation. The action plan implementation status was reviewed in the Safe Delivery Team meeting. All the meeting minutes were recorded for the purpose of documentation and record keeping.

Half-yearly review and follow-up meetings were organized. The objectives of the half-yearly review meeting were to identify the achievements (what has been done), review and revise the outputs/objectives, and development of revised action plan.

3) Union Health Facility improvement based on the assessment

Before going for the union level planning, health facilities in the union (H&FWC or Sub center) should be assessed to understand the current situation and needs (from providers' perspective) including opinion of the facility managers to improve safe delivery services. SMPP developed an assessment checklist and used it for assessment of union level facilities (annex 2). Some FGDs (key informant interviews) could be done to understand the community perception towards health facility and services, especially the factors affecting utilization and their expectations, especially about the obstetric care services.

During planning meeting, the participants discussed the problems of health facility. This discussion was reflected in the Model Union Action Plan with clear responsibility and timeframe. Based on the proposed actions, responsible stakeholders (H/FP managers, UP and JICA) provided supports for improvement of health facility.

4) ANC/PNC training and Midwifery Training for FWV and CSBA & TBA/Village Doctor orientation

The Model Union Action Plan usually contained the activities related to skill development of service providers namely FWV, FWA, HA, CSBA, TBA and Village Doctors. In response to the requests, JICA supported to organize ANC/PNC, midwifery and essential newborn care training for FWV and CSBA and orientation on harmful practices for TBA and village doctors in all the Model Unions. Those trainings were facilitated and followed up by SMPP staff (annex 3).

5) Community Mobilization

The community based activities proposed in the Action Plan could be summarized as community awareness raising on safe delivery and community mobilization activities. Those activities include: ANC/PNC campaign, promotion of BP and matir bank distribution to pregnant mother, best performance award, blood grouping, etc. The Union Parishad and community groups often took a leading role to organize those events. In Narsingdi, the financial supports for organizing the activities came from the UP, JICA or CmSS own funds.

6) Promotion of Citizen Charter

The Citizen Charter is an important tool to ensure accountability and responsiveness of service providers. At the same time, the citizen will know their entitled services and a right to obtain those services. After becoming a Model Union, the board of Citizen Charter was placed in front of health facility of the union to promote Citizen Charter. The available service list (including drugs) and open hours of the service center was also posted in the center. This helped make clients feel encouraged to seek services from this center.

7) Regularization of Union Coordination Committee Meeting (UCCM)

The UCCM was first introduced by the Participatory Rural Development Project 2 (PRDP-2) implemented by JICA and BRDB during 2005-10. The PRDP-2 sought to improve public service delivery through improved coordination among the UP, Nation Building Department (NBD) extension workers and citizens. One of activities to achieve its objective was the UCCM which enables UPs to bring together demand and supply side perspectives to improve service delivery.

The UCCM in Narsingdi was consisted of UP functionaries (UP Chairman, Council Members and Secretary), responsible NBD extension workers in the area, and NGOs and Village / Gram Committee representatives. The UCCM was chaired by the UP Chairman with the UP secretary as the member secretary. During this 2-3 hour "mini-parliament", the government field workers reported on the progress of their programs and formulated their work schedules for the next month.

SMPP facilitated to introduce the UCCM in Model Unions and tried to make MNH issue as regular agenda to report and discuss in the UCCM. The specialty of the UCCM in Narsingdi was that Union Community Support System (CmSS) Federation representatives attend the meeting regularly and report their activities. The UCCM was also utilized as a monitoring forum for UP budget execution and any problem solving.

8) Allocation of UP budget to MNCH activities

Along with introduction of the UCCM, SMPP encouraged UP to allocate the budget for MNH related activities. The total budget allocated for MNH related activities amounted Tk 879,000 in Narsingdi in the fiscal year 2010-11. This budget was mainly utilized for the activities such as improving infrastructure of FWC/CC, emergency referral support (Rickshaw van and mobile phone), hygienic

Chotigar (delivery hat for hindu community), and matir (mad) bank distribution for pregnant women to promote saving. Some activities of Model Union Action Plan were supported by UP budget as well.

9) Other initiatives taken by Model Unions

- **Community Support System (CmSS)** was developed in two Upazilas (Monohordi and Raipura) of Narsingdi from February 2007 with facilitation of CARE Bangladesh. By the end of 2010, there were 151 CmSS groups functioning in 4 Upazilas of Narsingdi. CmSS was a part of Model Union Action Plan in Monohordi, Polash and Raipura Upazilas. SMPP learned that one CmSS group, from its inception, took 1.5 years in average to normalize their regular activities. In fact, CmSS groups were proactively involved in the planning and implementation of Model Union Action Plan.

- It should be noted that the idea of **Private CSBA** came first from one of Model Unions, Bashgari union of Raipura Char. This idea was incorporated in the Model Union Action Plan and P-CSBA training was started from December 2008 by the financial support of JICA. After the training P-CSBAs maintained good relationships with UP and CmSS for providing MNH services. At present there are 19 P-CSBA working in Raipura Char, Narsingdi.

- Union chairmen recognized the importance of CmSS and provided the rice and wheat to the CmSS for fund raising purpose. In addition, Union chairmen recruited a local poor woman as a cleaner for FWC and the cleaner got the VGD card as remuneration for labor.

5. Implementation of Model Union

The following 6 steps were taken by the SMPP as Model Union approach implementation processes:

Step 1: Consensus building on the 'Model Union Approach' among stakeholders and the selection of Model Union by UPIC
Step 2: Baseline data collection (situation analysis) on MNH in the Model Union including Union level Health Facility Assessment
Step 3: Development of 'Model Union' action plan
Step 4: Implementation of Action Plan
Step 5: Review of Action Plan implementation and its outcomes
Step 6: Promote further expansion of Model Union Approach in Narsingdi with less external support

The detail of the implementation steps are described below:

Step1: Consensus building on the 'Model Union Approach' among stakeholders and the selection of Model Union by UPIC

The concept of Model Union was shared and discussed in the DPIC and UPIC meetings for approval and potential Model Unions were selected by the UPIC members.

Step 2: Situation analysis on MNH in the Model Union including Union level Health Facility Assessment

Union level Facility Assessment was conducted jointly by Health/FP staff and JICA. The Facility Assessment Checklist developed by the SMPP was used to maintain standardized evaluation covering the information on the needs of equipment, HR, staff training, infrastructure, and current status of facility readiness and quality of services. Key stakeholders in the community such as TBA, Village Doctors, School teachers and local activists and elites, who should be involved in planning, were identified in the situation analysis process.

Step 3: Development of 'Model Union' action plan

Model Union Planning Workshop/meeting was called by Union Chairman in the respective model unions with the participation of Upazila Health and FP managers, UNO, Union Parishard members and community representatives. The findings of situation analysis and Facility Assessment were presented and followed by open discussion. Based on the current situation of the union, the participants of the Workshop identified problems and areas to improve. During group work those identified areas were divided into the activities at the facility and community levels and presented as an action plan in the forum. This action plan was later compiled and signed by Union Chairman and approved by UPIC.

Model Union Planning Workshop was also a forum for clarifying the roles and responsibilities of key stakeholders: Health and FP departments, the community including Local Government and JICA. Model Unions were encouraged to generate locally available resources to implement their own action plan.

Apart from Action Plan, SMPP proposed to form Safe Delivery Team in the model union. The members of Safe Delivery Team included FWV, CSBA, TBA and Village Doctor, who commonly took an important part in delivery assistance in the community. The primary activity of the team was holding a regular meeting at FWC, in which information on pregnancy and delivery outcomes was shared and maternal and neonatal death cases were reviewed. FWV was a leader of the team and expected to facilitate the activities of the team and provide necessary technical assistance to other service providers.

Step 4: Implementation of Action Plan

After the endorsement of Action Plan, implementation started accordingly. The Action Plans mostly contained the core package of the Model Union interventions with some additional activities reflecting the local needs. The responsible persons tried to implement each activity within the agreed timeframe and the progress of the implementation was discussed in the SDT meeting and UCCM. SMPP Upazila Coordinators assisted the implementation process.

Step 5: Review of Action Plan implementation and its outcomes

The Model Union review meeting was organized after the completion of 6 month implementation. The review meeting was attended by regular members of SDT, UP members and Upazila Health/FP

managers. The achievement of Action Plan and improvement of service delivery was checked and discussed. There was the revision of Action Plan as per needs of that time.

Step 6: Promote further expansion of Model Union Approach in Narsingdi with less external support

The achievements and good practices of Model Unions were shared in the different forums in Upazila and District to sensitize other Union Chairmen. The exchange visits to Model Unions were encouraged to learn about their activities by non- Model Union people. SMPP also provided more learning opportunities to the UP members of Model Unions through Horizontal Learning Program (HLP) coordinated by WB. Those activities were found effective in expansion of Model Unions in Narsingdi.

5. Effectiveness of Model Union Approach

Effectiveness of the SMPP including Model Union Approach was evaluated by the comparison of baseline and end-line situation using the set indicators listed below. The baseline data was collected in February 2008 through the cluster survey in 9 Model Unions and the targets were set after analyzing the baseline information. The End-line survey was conducted in November 2009 to capture the changes occurred after the project intervention. As shown in the table below, Model Union has achieved the set targets of met needs of EmOC, ANC, SBA, knowledge on pregnancy danger sign, and community support for poor pregnant women. The targets of PNC and ENC were not achieved, which remain as a challenge for future intervention.

Indicators	Baseline	End-line
1. Proportion of complicated cases utilized EmOC services at the facility	17.8 % (Public and private facilities in Narsingdi)	55%
2. Proportion of pregnant women received at least three ANC	20%	**34.7%**
3. Proportion of delivery assisted by Skilled Birth Attendant (CSBA, FWV, Nurse, Doctors)	14%	**25.4%**
4. Proportion of pregnant women know at least three danger signs of pregnancy	3.3%	**38%**
5. Proportion of pregnant women received at least one PNC within 42 days of delivery	14%	12.2%
6. Proportion of poor pregnant women received community support	3%	**31%**

Qualitative data and regular project monitoring indicated that, besides achieving the set targets, Model Union Approach resulted in the positive changes in the following aspects:

- The utilization of MNH services increased
- The quality of service provided by health facility improved
- Active involvement of local government and community in MNH activities
- Collaborative relationships among Health/FP workers, NGO workers, and informal service providers were established

- Regular monitoring of service delivery performance ensured
- A sense of accountability of service providers towards their served community was created

6. Feedback from FWVs --- the results of the FWV interviews

The SMPP conducted the interview with 25 FWVs under model unions in June 2011. The following are the summary findings of the interviews:

The good activities of Model Union were:

- ANC/PNC Campaign (96%)
- Safe Delivery team meeting (96%)
- Integrated services given to the mother by merging of SC with EPI session (92%)
- Increase the number of normal delivery in the H&FWC (84%)
- Increased/Build up relationship with Local Government (80%)
- Observance of Safe Motherhood Day at union and field level, as a result, ANC & PNC performance increased in the model union than other unions (72%)
- Organize UDCCM meeting & sharing of MCH performance on that meeting (44%)
- UP contribution collection such as-electric fan, FWC repairs, water tank and water line repair, table, chair, steel almirah, etc. (40%)
- Placed citizen chartered board in the premises of H&FWC by JICA (36%)

The negative factors affected model union approach were:

- Staff transfer (16%)
- Shortage of staff such as Aya (8%)
- Infrastructure problems (lack of water, electricity, bathroom, furniture, boundary wall,...) (8%)
- More visitors visit FWC (Mirzanagar)

Good aspects of Safe Delivery Team: beneficial? Can be continued?

- Discussion on maternal and neonatal death in the SDT meeting (60%)
- Update pregnant women registration (56%)
- MCH performance discussion in the SDT meeting and take corrective measures for solved the problems (44%)
- Coordination & communication increased among the GO & NGO and between H&FP departments (16%)
- Due to analysis of MCH performance increased the performance ANC & PNC (6%)
- Communication increased with TBA (8%)
- Increased accountability of work (8%)

Any changes observed after becoming Model Union:

- Increased the number of referral of high risks pregnant women from field level to facility (68%)
- Pregnant women aware on ANC/PNC (68%)
- Upazila managers given special priority to the model union (68%)
- Increased the number of delivery at FWC and home day to day (64%)
- Due to UP/JICA contributions most of the problem of H&FWC was solved (60%)

We can understand from the interview findings that FWVs appreciate the activities of Model Union and recognize the benefits of the activities. Most of them also said that they can continue the activities even the project ended.

7. Lessons learned of Model Unions

- Model Union approach increased the motivation of field workers including FWVs, FWAs and CSBAs. Safe Delivery team contributed to strengthen communication and coordination among formal and informal service providers in the union. Infrastructure support from the LG and the Project was always appreciated and visible and directly improve the quality of services provided at FWCs through setting up better working environment for FWVs.
- Model Union approach found helpful to stimulate the interest of local government bodies, especially Union Chairmen. They were politically motivated and there were competitions among unions to be better than others. The fact of "selected as a model union" made them feel "better than others." After the Project started promoting "Union Coordination Committee Meeting (UCCM)" and sent some UP members to related training and Workshops, the Union Chairmen became more proactive and committed to support the activities of the Project. Some unions allocated the annual budget to MNCH related activities and declared in the Open Budget session. The sum of such budgets of UPs has reached to Tk 879,000 in fiscal year 2010-2011. Starting from Danga union, Matir Bank distribution to the pregnant mothers became popular in Narsingdi.
- Participatory planning of Model Union was effective to identify existing problems and find out the action oriented solutions. During planning the commitment of three parties (service providers including managers, Union Parishard, and JICA) were ensured in front of all the participants. It also worked to bridge among different stakeholders. The monitoring of the action plan was done by Safe Delivery team together with performance review and later on linked with UCCM.
- Informal service providers, TBAs and Village Doctors were benefited from the model union approach. They were trained on prevention of harmful practices during delivery and referral. The Project regarded their roles in MNH are important in the community and tried to involve them in different occasions instead of ignoring them. Since their training opportunities were limited, they turned out active participants of the trainings and other community activities organized by the Project.
- Community Support System (CmSS) activities became a part of Model Union action plan. This approach contributed for CmSSs to have recognition by the local authorities, thus, obtaining more support from UPs.
- SMPP JICA team was requested several times by the GoB counterparts to cover the whole District with Model Union approach. However, the Project felt it cannot be successful due to the absence of motivated FWVs. First of all, finding FWVs who reside at FWC was difficult in Narsingdi. We learned more than half of FWVs were residing in the Upazila town or Narsingdi. At first the Project intended to promote delivery assistance at FWC in the Model Unions and was struggled a lot due to the same reason. It also contradicted the interests of FWVs who were actively assist home delivery in the locality and earned some incomes from it. Since those FWVs had been practicing as such for many years, we felt it is difficult to make them change their behavior.

7. Recommendations

SMPP introduced Model Union approach with the aim of reducing maternal and neonatal deaths in the unions. The Model Union intervention package was developed to demonstrate its effectiveness and later it was simplified to ease the expansion of the activities. In the course of implementation, this approach faced difficulties due to negative attitude of FWV, a key service provider of the Model unions, and unavailability of FWVs in the area. The transfer of FWVs also affected the performance of Model Unions significantly. Those issues were out of control of the Project. Since many FWVs not assisting deliveries at FWCs, it is suggested that the DGFP looks at this reality and determine the responsibility of FWVs for delivery assistance. Providing the 6 month midwifery training cannot be a solution if the FWVs are not motivated to assist delivery at FWC.

After the new government took place in 2009, the revitalization of Community Clinic (CC) became a political priority, and it would continue up to the year 2014. Under this circumstance, it is likely that Union people pay more attentions to the function of CCs. There is no doubt that the CCs will be a big agenda for any union level interventions from now on.

For SMPP-2, it should be carefully decided what the Project will do below union level. As SMPP-2 will intend to develop a feasible and replicable model in Satkhira District, the Narsingdi experiences of Model Union need to be adjusted to be more replicable. The suggestion will be to use Union participatory planning as a core of union level activities and be introduced in all unions by phase wise. It is expected that union action plan will include activities related to CCs and FWC, skill development of field service providers, and community mobilization which is quite similar with the simplified intervention package of Model Union approach. In this approach, the SMPP needs to be more flexible, refrain from the project direct inputs, instead, encourage local initiatives and ownership. Our aim is to roll out the activities based on the action plans in all 78 unions of Satkhira district within first two years.

8. Conclusion

As mentioned earlier, the SMPP learned significantly from the Model Union approach. This idea was developed from realistic consideration of health service delivery and utilization situation in the union level and SMPP capacity. Intervening all 71 unions of Narsingdi equally was impossible for the SMPP with limited manpower and financial resources. Besides, there was another community mobilization activity facilitated by CARE Bangladesh. In this circumstance, at the same time, to contribute to the goal of maternal and neonatal mortality reduction, the SMPP intended to come up with the way to utilize existing resources optimally through involving all the stakeholders and ensure mutual effects among on-going community mobilization activity. Our answer was the Model Union approach and it was a good decision that we started this pilot activity.

However, 5 years are quite enough time to see the changes in a developing country. Bangladesh has achieved remarkable improvements in maternal and child health. New recruitment of different categories of staff including doctors, nurses, FWAs, and HAs has alleviated a burden for service delivery in the field. The "Digital Bangladesh" initiative has brought computer technologies up to Upazila level. Those technologies certainly reduce the workload of the staffs. Community Clinics again gained attentions to be revitalized, as a result, an increasing number of CCs now open the door regularly. All are contributors of improvement of MNH in Bangladesh. We recognize that any interventions, if to

be successful, are required to adjust this rapidly changing environment. Likewise, Model Union approach needs its modification. For example, how can the SMPP make this approach more replicable by the local stakeholders? What should we do about community clinics? In there more effective way to develop relationship among health service providers/facilities, community and local government? Even though the Model Union approach is considered as a success, we cannot stop exploring the best approach for present and future Bangladesh. This quest seems never ending, however, we understand this is the mandate of the SMPP.