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# **Referral and Linkage for Emergency Obstetric Care: A Manual for Programme Managers**

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# Introduction

## Purpose of the Manual

"Referral and Linkage for Emergency Obstetric Care: A Manual for Programme Managers", is intended to be used as a guidebook by programme managers involved in EOC activities to reduce maternal deaths and illnesses. The objective is to provide health managers with a step-by-step guide to understand and implement referral and linkage activities for EOC. It is designed to help service providers at all levels to coordinate referral and linkage activities through the introduction of a pictorial card, instructions and work sheets regarding maternal health for establishing effective referral and linkage for EOC. It also includes important monitoring tools, such as observation checklists, record keeping and reporting formats.

The manual describes:

- The strategies for establishing referral and linkage for EOC between different service delivery tiers from the grassroots to the higher levels.
- The implementation and monitoring process for referral and linkage.
- It also explains:
  - Awareness raising tools,
  - Observation checklists,
  - Record keeping formats, and
  - Reporting formats.

## Background of the Manual

Maternity services in Bangladesh are delivered from all of the various tiers of health service delivery by different cadres of service providers. Services utilisation, however, is poor. Nearly 71 percent of all pregnant women receive no antenatal care, 96 percent of all deliveries take place at home and only 16 percent of the total deliveries are attended by the trained personnel [1]. Utilisation of the institutional facilities, therefore, are minimum. This is because referral and linkage for Emergency Obstetric Care (EOC) services in the country are weak. To help make an effective use of the existing EOC services, timely referral of patients to the appropriate higher levels as well as maintaining linkages among the different tiers of service delivery are essential.

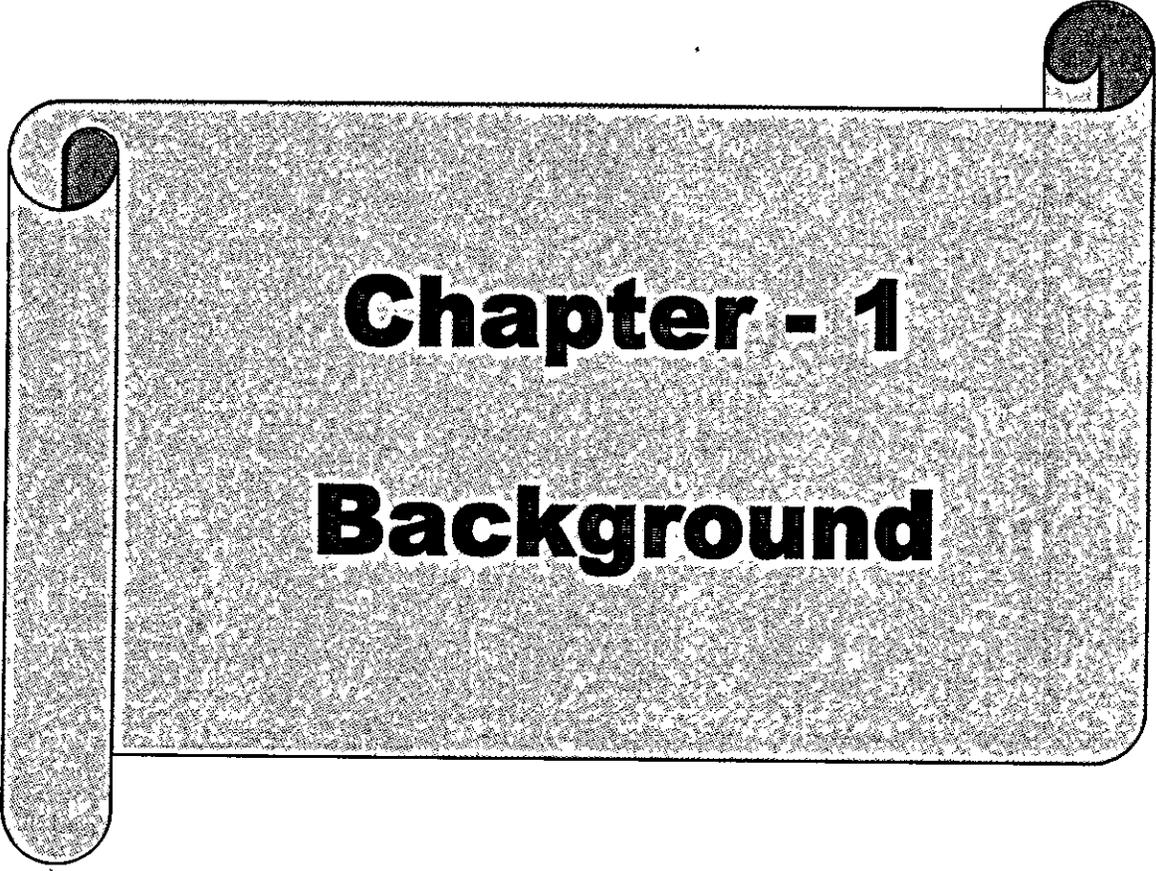
The former Rural MCH-FP Extension Project, presently the Operations Research Project of the ICDDR,B, undertook an intervention entitled 'Strengthening Maternal and Neonatal Health: Improving Linkages at all Levels'. Results of a mid-term evaluation conducted between August 1996 and February 1997 showed that more women received antenatal care (ANC) from medically trained personnel, such

as the Family Welfare Visitor (FWV), doctors and Trained Traditional Birth Attendants (TTBAs). The percentage of women receiving postnatal care (PNC) increased twofold. The utilisation of the Thana Health Complex (THC) for the management of obstetric complications also increased. This manual has been developed based on the experiences gained and the lessons learned from the above intervention.

## **Organization of the Manual**

The manual is divided into three chapters:

- The first chapter deals with the present status of maternal health in relation to EOC services.
- The second chapter describes the strategies for establishing the referral and linkage mechanism for EOC services. These include:
  - Awareness raising tool: Pictorial Card
  - EOC service record keeping: Pregnant Women Register
  - Monitoring the EOC service delivery: Observation Checklist
  - Monitoring the referral and linkages for EOC services provided by the FWAs and the FWVs, using the following reporting tools:
    - Report on pregnancy and childbirth
    - High-risk pregnant women list
  - The final section of this chapter discusses the EOC services available from the various service delivery tiers.
- The third chapter describes the process involved in the implementation of the strategies as they are used to develop the referral and linkage mechanism for EOC.



**Chapter - 1**

**Background**

This chapter will enable the programme managers to understand the present status of maternal health, especially with regard to the utilisation of EOC services in Bangladesh. This, in turn, will help to identify specific gaps in the referral and linkage activities of EOC.

## **Present Situation of Maternal Health and EOC Activities**

Globally, at least half a million women die each year of maternity-related problems. Ninety-nine percent of these deaths occur in developing countries [2]. In Bangladesh, the current maternal mortality is estimated to be 4.5 per 1000 live births. Moreover, there are at least 16 morbidities for every maternal death [3]. 1993). High fertility norms, poor access to and utilisation of health services, and sociocultural and economic barriers - all lead to high maternal mortality and morbidity in the country.

Bangladesh has a well-established service delivery infrastructure, but the utilisation of these services is poor. Apart from the traditional norm of home deliveries in rural Bangladesh, women are not fully aware of the complications that they may encounter during pregnancy and childbirth. Even those who are aware, do not know where to go for help. Thus, a large percentage of women with obstetric complications fail to get the care they need in time and die at home or on the way to the hospital. This is because referral and linkage for EOC services in the country are weak. There is, therefore, an urgent need to strengthen referral and linkage from the grassroots to the upper tiers of service delivery.

## **Role of EOC in Preventing Maternal Mortality and Morbidity**

Emergency Obstetric Care (EOC) may be defined as the life saving mechanism for obstetric complication [4].

In the context of the high maternal mortality and morbidity in developing countries, there has been a global re-appraisal of the various programme strategies to improve maternal health. Existing research [3] shows that: (a) all pregnant women are at risk of developing serious complications, even under the best of circumstances, with good nutrition, antenatal care, and skilled delivery care; and that (b) maternal mortality cannot be substantially reduced unless women have access to emergency obstetric care (EOC) services.

## **Elements of EOC**

EOC is comprised of a number of obstetric services that can be provided at various levels of the health care system. Depending upon the type of services provided and the level at which these services can be provided, EOC has been divided into the

following three categories: i) first-aid EOC at the Health and Family Welfare Centre (H&FWC) at the union level; ii) basic EOC at the Thana Health Complex (THC) at the sub-district level; and (iii) comprehensive EOC at the district hospital. Details of the different components of EOC are shown in Table 1.

**Table 1.** Components of EOC<sup>1</sup>

First-Aid EOC	Basic EOC	Comprehensive EOC
<ul style="list-style-type: none"> <li>• Ergometrine (injectable)</li> </ul>	<ul style="list-style-type: none"> <li>• All first-aid EOC services</li> </ul>	<ul style="list-style-type: none"> <li>• All basic EOC services</li> </ul>
<ul style="list-style-type: none"> <li>• Antibiotic (injectable)</li> </ul>	<ul style="list-style-type: none"> <li>• Manual removal of placenta</li> </ul>	<ul style="list-style-type: none"> <li>• Caesarean section</li> </ul>
<ul style="list-style-type: none"> <li>• Anticonvulsant (injectable)</li> </ul>	<ul style="list-style-type: none"> <li>• Assisted vaginal delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Blood transfusion</li> </ul>

Source: UNICEF, 1993 [3]

### Utilisation of EOC Services:

Despite the presence of a well-established service delivery infrastructure in Bangladesh and various measures taken so far, e.g. identification and referral of high-risk pregnancies, provision of antenatal and postnatal care for providing clean delivery services, the utilisation of existing EOC services is still very limited. Only 16 percent of the country's child births are assisted by medically trained personnel. Although the government has provided training for the traditional birth attendants (TBAs), only eight percent of the births are now delivered by trained TBAs. Only four percent deliveries are conducted at the institutional facilities.

Factors contributing to the low utilisation of EOC can be described by using the "three delays" model [5].

The first is the delay in seeking care, which results due to the lack of or delayed decision to seek care. In Bangladesh, most women and/or their relatives do not anticipate the severity of complications that can arise during pregnancy and childbirth. As a result, the women with obstetric complications either do not go to the facility or reach it after it is already too late.

The second delay is in reaching the health facility where the appropriate level of care is available. This is due to distance, problems of transportation, or lack of preparedness for emergencies. Availability of transport for reaching the health

<sup>1</sup> Standards and protocols for EOC services provided at different service delivery tiers are available in a separate document of the Project.

facilities has been shown to influence whether or not people will use the service. Moreover, when families are not prepared to deal with emergencies, it affects the decision making process in care-seeking.

The third delay is the delay in initiating treatment at the facility because of the shortage or unavailability of trained personnel, medicine and equipment. The development of skill through staff training and the adequate supply of logistics are important for providing appropriate services to the community. Moreover, the quality of services provided will help determine whether people will return to those facilities for the service in the future.

The figure 1 illustrates how the various factors influence delays.

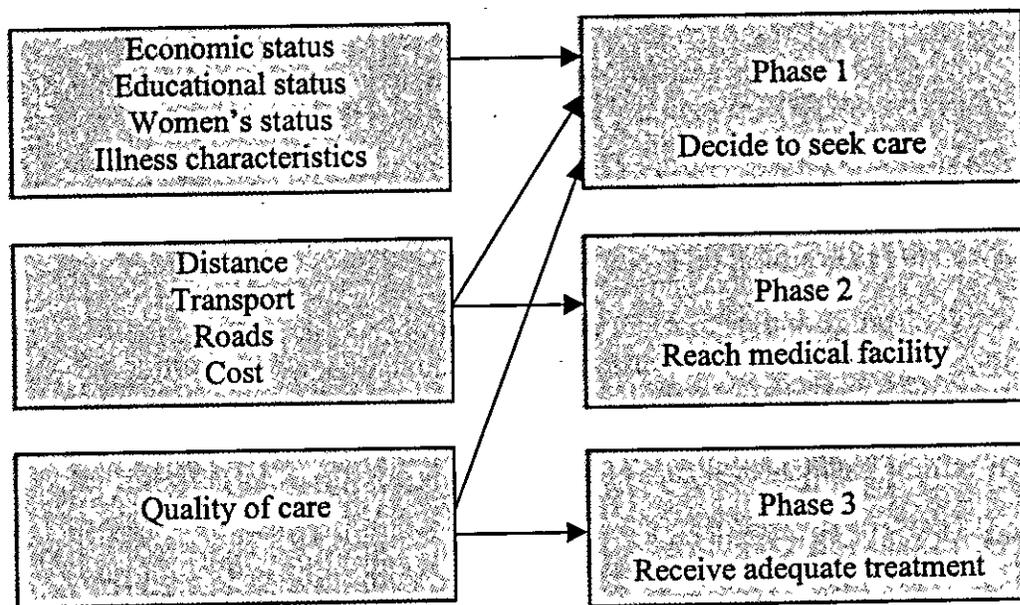


Fig 1. Three delays between a woman and EOC

Each of these levels of delay needs to be overcome if a woman is to receive timely care. This can be done through awareness raising and the development of an adequate referral and linkage mechanism and also by ensuring that the services are available when women do go to the facilities upon referral. Availability of transport and decentralisation of the EOC services can be an important step in improving maternal health.

## **Role of Referral and Linkage in EOC**

The delays in availing of the EOC services should be addressed as follows:

Different cadres of service providers deliver maternity services from different tiers of the health service system in Bangladesh. To make an effective use of the EOC services, timely referral of patients to the appropriately higher level, while maintaining linkage among the different tiers of the health system is essential.

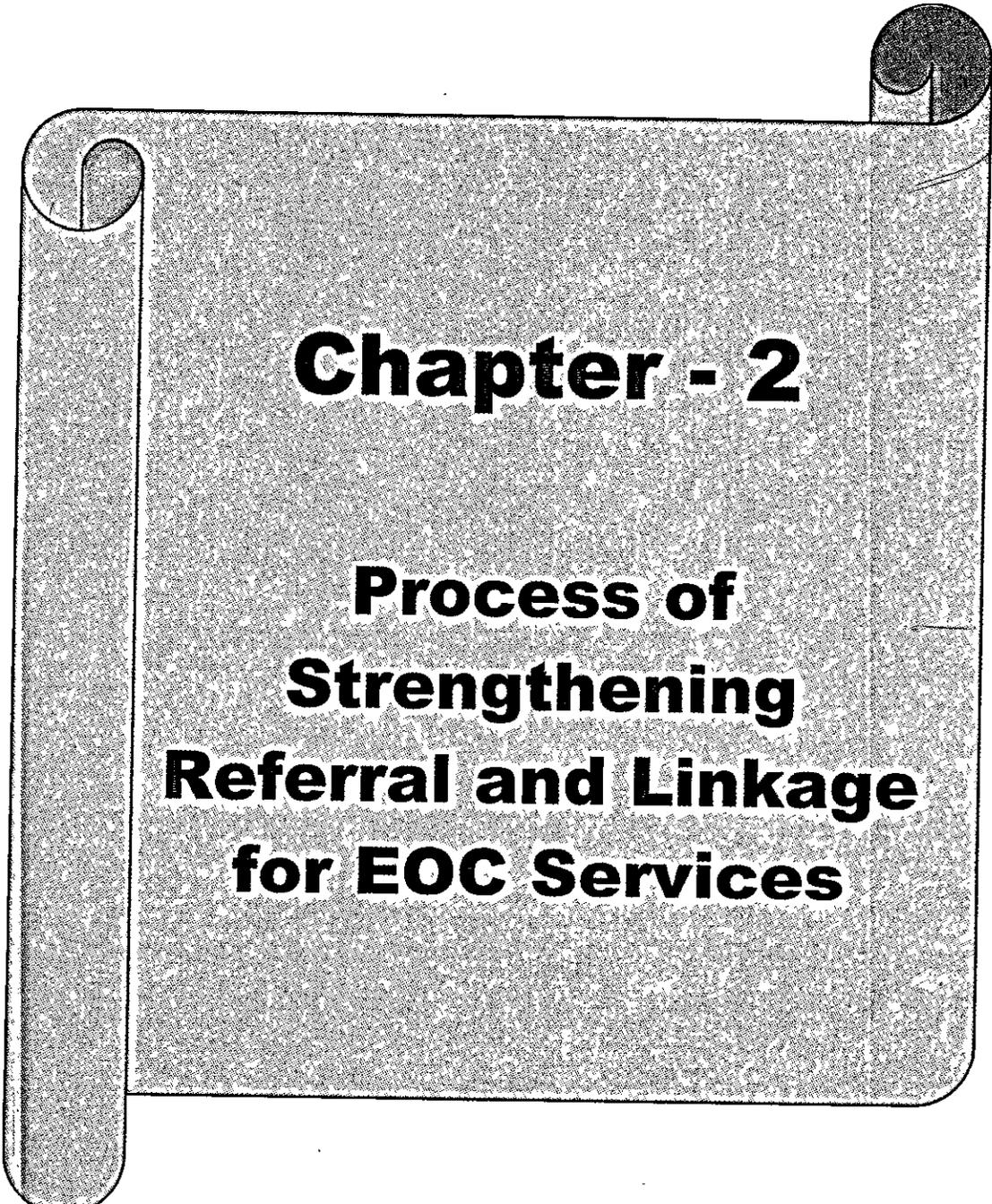
The term 'referral' may be described as the process of sending clients from one level of service provider/centre to a higher level for better management of complicated cases. Therefore, skilled manpower is needed to identify cases that require special attention for management of their complication(s).

The term 'linkage' can be described as the mechanism through which service providers at different levels are connected to each other to provide back-up support to each other as and when necessary.

Thus, a mechanism that links pregnant women to the appropriate tiers of service delivery for EOC is needed. The pre-requisites for this are:

- Appropriate infrastructure for EOC services
- Trained providers
- Awareness regarding EOC services

It is also essential that facilities are fully equipped to manage those complicated cases and if appropriate care is not available at the facility, the woman might need to be referred to the next level. Available transports or any type of financial assistance programme/service are important for providing appropriate care and for reaching the first-level care at the right time.



# **Chapter - 2**

## **Process of Strengthening Referral and Linkage for EOC Services**

This chapter describes the process, how the delivery of EOC services can be strengthened through effective referral and linkage among the different service delivery tiers: a) a pictorial card can be used to raise awareness; b) the pregnant women register can be used for record keeping; and c) monitoring tools like checklists and reporting formats can be used to help identify weaknesses in the mechanism and find solutions by encouraging the participation of staff members at all levels.

## **Strategies to Improve Referral and Linkage for EOC**

The important aspects of referral and linkage consist of:

- Raising community awareness about pregnancy and delivery related complications.
- Ensuring the availability of adequate services at the referral facilities.
- Maintaining a linkage mechanism among the service delivery tiers.

## **Referral and Linkage among Different Levels of Health Care Providers**

The referral and linkage-related activities which were implemented both at the community and the thana (sub-district) levels and above that facilitated the use of EOC services by pregnant women are shown in detail in the following flow chart (Figure 2).

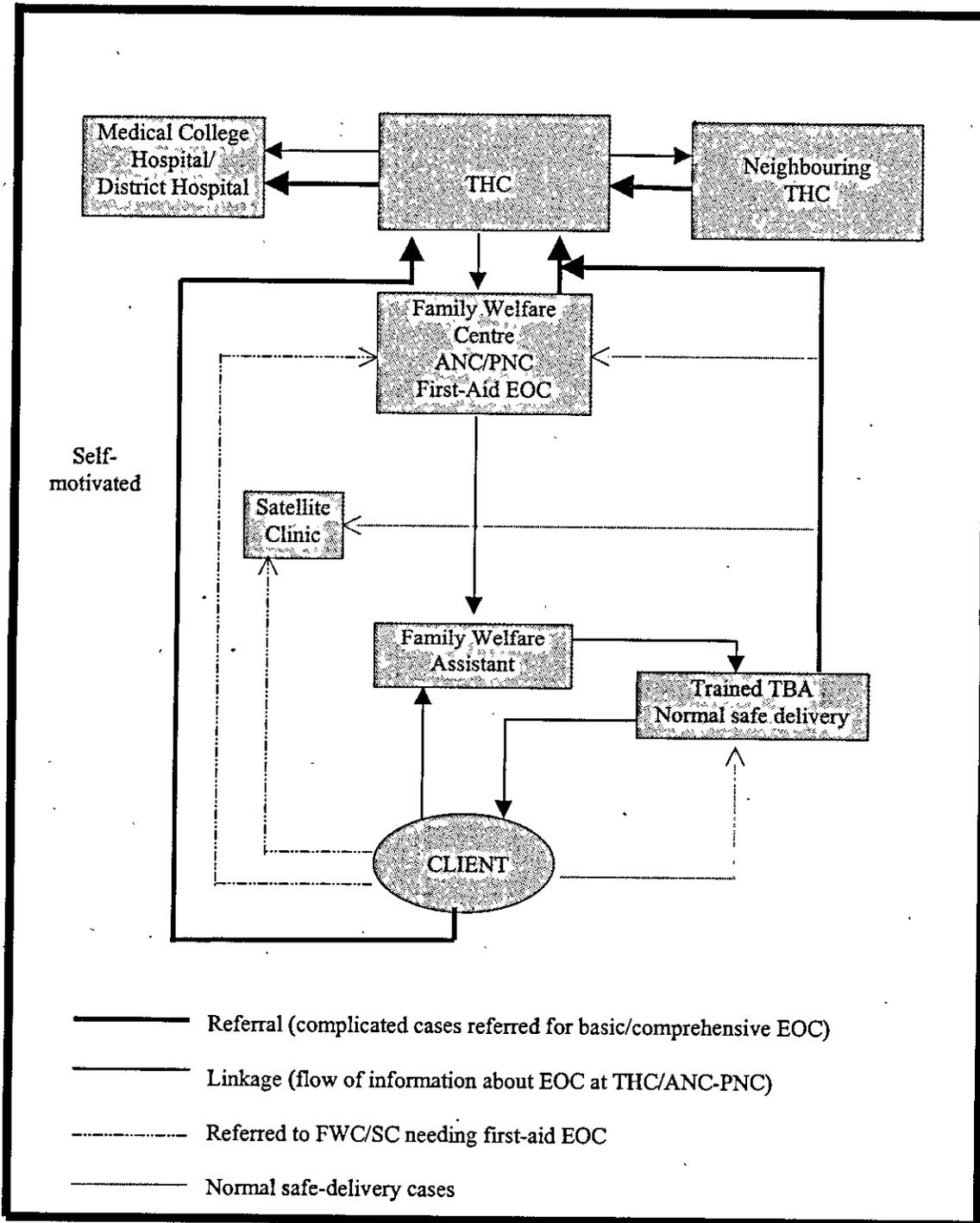


Fig.2. Referral and Linkage Flow Chart

At the community level, the Family Welfare Assistant (FWA)/field worker provides preventive services to pregnant women (advice on maternal nutrition, breastfeeding and family planning; refer for antenatal care, safe delivery and child care). She also contacts TTBA to inform her about the pregnant women in her area. The Family Welfare Visitor (FWV)/Paramedic works at the union level providing services at the Health and Family Welfare Centre (H&FWC)/Satellite Clinic (SC). She provides antenatal and postnatal care and refers clients with obstetric complications as well as pregnancies identified as high risk. The Thana Health Complex (THC) is the first referral centre where Basic EOC services are provided, while the Maternal and Child Welfare Centres (MCWCs) and District Hospitals are responsible for providing higher level maternal and child health and family planning (MCH-FP) services for back-up support. Pregnant women have the option of going directly to any level of the EOC service delivery system for obstetric care whether or not they have any complication(s).

# Section I

## Raising Community Awareness: Pictorial Card

This section describes the strategy to raise awareness among the community people with regard to the development of a referral mechanism at the community level. It is essential to motivate the community because it is at this level that decisions are made regarding the seriousness of a woman's condition. It is also at this level that they are able to take the pregnant woman having pregnancy and delivery related complication(s) to nearby health centre in time by early recognition of the symptoms/signs that are needed to be referred.

### How to Raise Community Awareness?

Awareness regarding the common complications of pregnancy and childbirth can be raised through messages in pictorial form in communities with low levels of literacy.

This pictorial card is given to a pregnant woman when identified by the FWA/field worker. While delivering it, she explains the symptoms of complications of pregnancy and childbirth to the pregnant woman as depicted in the card. If possible, the FWA/field worker explains the card in presence of the woman's husband and/or relatives, tells them about the consequences of these complications and advice them to take the woman to the nearest health facility immediately when any complication(s) arise.

Posters of the pictorial card are also placed at all service delivery points, such as the SC, H&FWC, EPI spots, meeting places of different groups, pharmacies, markets, TTBA's houses and THCs. In addition, FWA/field worker or FWV/paramedic advise all pregnant women to share and discuss the pictorial card with their neighbours or relatives and also pass it on to the pregnant women living in neighbourhoods. This considerably also helps in raising community awareness about when pregnant or postpartum women should be taken to the hospital.

### What is the Pictorial Card?

The **pictorial card** is an awareness raising tool depicting the symptoms of complications relating to pregnancy and childbirth. The cards are distributed among pregnant women. The card shows pictures of the symptoms of common complications during pregnancy, like bleeding during pregnancy, swelling of the feet, severe headache and/or blurring of vision, fever for more than three days, premature rupture of membranes, prolonged labour, and excessive bleeding during or after delivery. The back of the card shows the different abnormal presentations of

the foetus during delivery, so that the delivery attendant understands when to refer or take the woman to the hospital. The picture of the hospital is also given in the card, so that the family members know where the mother should be taken in case of an emergency. The pictorial card is shown as Figure 3.

Union:  
Unit:

Sl. No.  
Date:



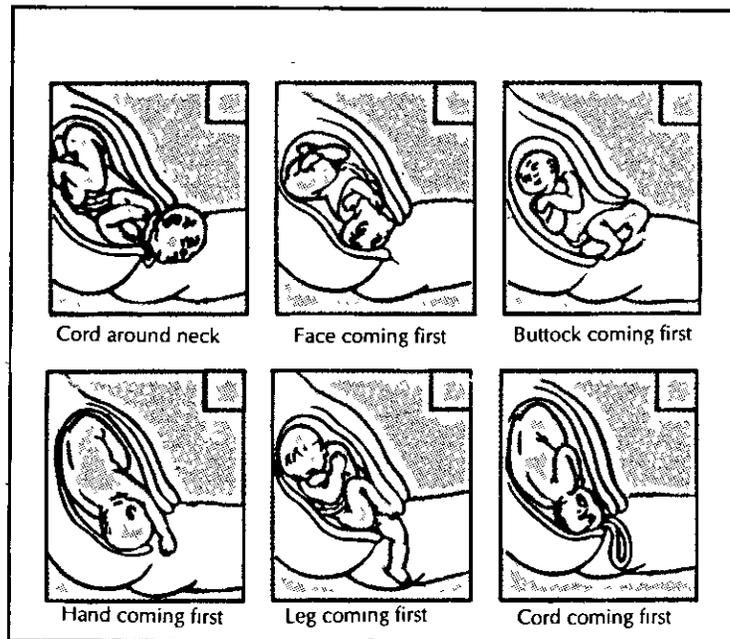
### Complications during pregnancy and childbirth

If any of the symptoms shown in the following pictures occur, go to the nearest hospital immediately



**Fig.3.** Pictorial Card

### Abnormal presentations of the foetus during delivery



### Thana Health Complex (THC)



1. The pregnant woman must go to the nearest H&FWC/SC at least three times during her pregnancy for ANC.
2. The pregnant woman must go to the nearest hospital for any complication(s) during pregnancy, delivery, after delivery.
3. The pregnant woman should go to the nearest hospital, if she appears pale or if her eyes look yellow.
4. During delivery at home, call the trained TBA.
5. The mother should take postnatal care services from the FWV at the H&FWC/SC within one and half months of delivery.

Fig. 3. Pictorial Card (contd.)

## Who will Give/Whom to Give?

The FWA/field worker identifies a pregnant woman, she then gives her a pictorial card bearing an ID number. She then shows the card to the pregnant woman and her relatives and explains each picture of the card.

The FWV/paramedic at the H&FWC/SC gives the pregnant woman a pictorial card if she has not received one from the FWA, and explains the card to her. Both FWA and FWV assess the knowledge of the pregnant woman prior to explaining the pictures and take feedback after explaining the pictorial card. The aim is to help make the pregnant woman and her relatives, who may influence the decision making, aware of the importance of timely referral and the place to be referred to for pregnancy or delivery related complications.

## The Message to be Given

The message to be delivered while explaining the pictorial card is as follows:

***"If any of the following occurs, take the pregnant woman to the nearby health centre, e.g H& FWC/SC or THC."***

- i) During pregnancy:
  - Excessive bleeding
  - Convulsion or unconsciousness
  - Swelling of face, hands or feet
  - Blurring of vision
  - Severe headache
  - Pre-term watery discharge
  - Fever for more than three days
  
- ii) During delivery
  - Labour pain more than 12 hours
  - Excessive bleeding
  - Convulsion or unconsciousness
  - Abnormal position/presentation of the foetus or prolapse of any part of the foetus, like cord, hand or foot etc.
  - Delayed expulsion of placenta
  - Fever
  
- iii) After delivery (within 42 days after delivery)
  - Fever for more than three days
  - Excessive bleeding
  - Lower abdominal pain
  - Foul smelling discharge.

## How to Explain the Pictorial Pard

The following gives a detailed description of what the field worker will explain to the pregnant woman while giving her the card. This should ideally be done in presence of the mother-in-law, husband, and other relatives of the household.

### *Bleeding during pregnancy*

The first picture on the card shows **bleeding during pregnancy** (Fig. 3a). Show this to the pregnant woman, and ask her: **'What do you understand from this picture?'** Then advise her to seek care immediately if it occurs, explain it to her in the following manner:

Normally, a woman does not bleed during pregnancy before delivery. If it occurs at any time during pregnancy, it is a sign of impending danger, both for mother and foetus. Bleeding may be due to abortion, and can even lead to death. Thus, if the pregnant woman finds that she is bleeding even just a little, like spotting, and if this bleeding does not even necessitate the use of any cloth/sanitary pad, **she still must immediately go to the nearest FWV.** If a woman bleeds excessively with or without associated pain, and needs to use cloth/sanitary pad, **she should be taken to the nearest hospital/THC immediately.** Convey this message to the mother-in-law, husband, and other relatives in the household, if possible.



Fig.3a: Bleeding during pregnancy

### *Swelling of the feet or face and/or severe headache/blurring of vision or convulsion*

The second picture shows the symptoms of **pre-eclamptic toxæmia** (Fig. 3b). Show this to the mother and ask her: **'What do you understand from this picture?'**

After knowing the mothers perception about the picture, explain it to her that: some physiological changes occur in a woman's body that may result in a little swelling of the feet.

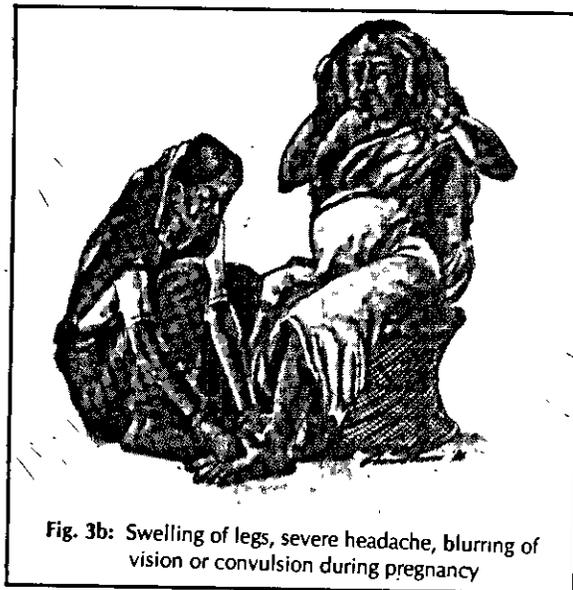


Fig. 3b: Swelling of legs, severe headache, blurring of vision or convulsion during pregnancy

Demonstrate how to determine oedema: press your thumb on the bony part of your leg, just above the ankle joint. Keep it there for 30 seconds, either keep the time by watch or counting from 1 to 30 in your mind, and show the depressed skin to the pregnant woman. Tell the pregnant woman that if the depression disappears immediately it is normal, if it does not, she has oedema, which is a danger sign; she **must then go to the FWV**, either at the H&FWC or the SC.

She should also go to the FWV, if she has a headache, dizziness, and/or blurring of vision, since these symptoms may cause convulsion and premature labour, or the baby may die in the uterus. If the headache is severe and there is also blurring of vision, or if she develops convulsions, **she must immediately be taken to the hospital/THC.**

The symptoms mentioned above are not normal during pregnancy. Therefore, it should be emphasised that the mother should take proper care of herself. She should also be advised that: **'Take rest, visit the FWV regularly, take no extra salt in your food, and take a diet rich in protein, including lentil, and also fish, eggs and milk, if possible'**.

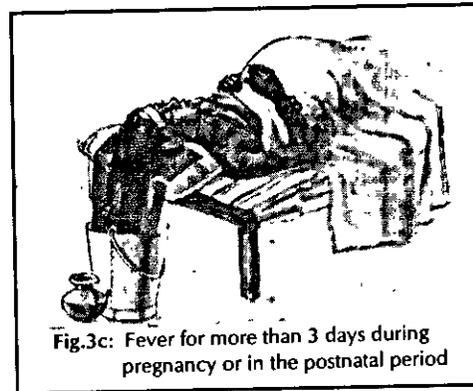
### ***Fever during pregnancy and after delivery***

The third picture shows a **pregnant woman with fever** (Fig. 3c). Show the picture to the pregnant woman and ask her: **'What do you understand from this picture?'** and assess what she understands.

Then explain to her that: fever is a common illness and can occur at any time during pregnancy. However, if the fever continues for more than three consecutive days, it may be an indication of other complications, which can ultimately lead to foetal loss.

Fever may also be an indicator of infection. So, the pregnant woman should be advised to **go to the FWV** for a check-up, if she suffers from fever for more than three consecutive days or get medical help at home.

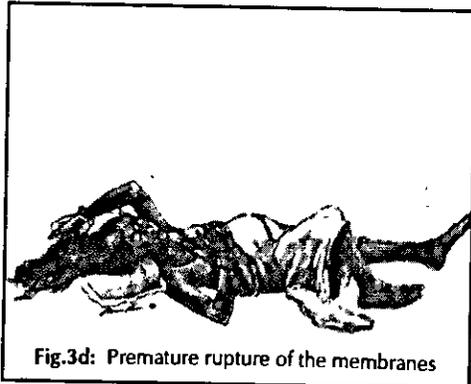
Inform the pregnant woman that fever may also occur within 42 days after the delivery as well, due to genital, urinary tract, breast, or chest infection. Thus, she should be **taken to the H&FWC or THC (nearest facilities)**, if she suffers from any fever. Also advise her to take plenty of water during fever.



**Fig.3c:** Fever for more than 3 days during pregnancy or in the postnatal period

### **Premature rupture of the membranes**

The picture shows the symptom of **premature rupture of the membranes** (Fig. 3d). Ask the pregnant woman : **'What do you understand from this picture?'** Then



**Fig.3d: Premature rupture of the membranes**

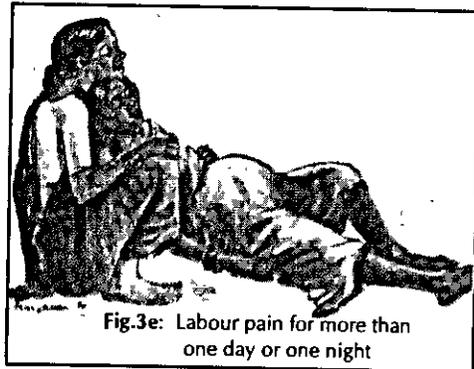
explain the picture. Tell her that: the membranes usually rupture at the time of delivery. However, rupture may occur at any time during pregnancy. Inform her that, in case of premature rupture of the membranes or rupture of the membrane before time, there is a continuous loss of amniotic fluid from the uterus. When this happens, labour becomes prolonged and difficult, requiring surgical intervention. Without help from the medically trained personnel, the mother

and/or the baby's life will be at risk. That is why, in such a situation the mother **must go to the THC** for immediate care. In addition, there is a chance of premature delivery, infection of the uterus, and cord prolapse. Finally, emphasize that if there is rupture, she should be **taken to the hospital/THC** without any delay.

### **Prolonged labour**

Show the picture (Fig. 3e) on the card with a pregnant woman sitting in a propped-up position and an elderly woman trying to comfort her. Ask the pregnant woman: **'What do you understand from this picture?'**

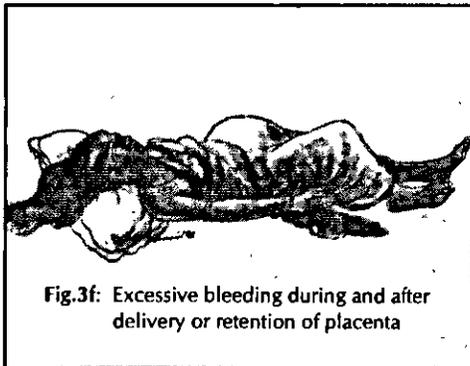
Then explain to her that: If labour is prolonged for 12 hours or more, i.e. one whole day and/or whole night in case of multi gravida and a six more hours, i.e. 18 hours or more in case of primi gravida, she should be **taken to the THC** for delivery. Inform the mother that any delay in seeking care for prolonged labour may cause severe complications, or even death of the mother, or the foetus. The mother may start bleeding profusely after delivery, or the baby may develop lack of oxygen in his/her blood and may ultimately die. Explain the picture and its significance, and ask her not to delay, if she has prolonged labour. Stress that she should go **directly to the THC**.



**Fig.3e: Labour pain for more than one day or one night**

### ***Excessive bleeding during or after delivery***

The last picture shows a woman during delivery who is bleeding profusely (Fig. 3f).



Ask the mother: 'What do you understand from this picture?' Then explain the picture to her. Tell her to go to the hospital/THC, if excessive bleeding occurs any time during or after delivery.

Explain to her that women normally bleed after delivery. But if a woman in labour starts bleeding **excessively**, it is a sign of danger. In this case, she **must be taken to the hospital/THC for immediate medical attention**. You can tell her that, generally, the placenta is situated in the upper segment of the uterus. If it is accidentally situated in the lower part, the woman will start bleeding before delivery. In such a case, immediate medical interference is essential to prevent further bleeding. Otherwise it can lead to maternal or neonatal death, or both.

Another cause of excessive bleeding is retained placenta. If the placenta is not expelled within 30 minutes after delivery, the woman must be **taken to the hospital/THC** for proper management. The mother may die due to excessive loss of blood, if she is not treated on time. If a woman bleeds excessively, (i.e. if a woman uses five or more menstrual pads in a day or changes her menstrual cloth five or more times in a day) at any time within 42 days of delivery, tell her that, this is abnormal and may have fatal consequences, if care is not sought on time.

Finally, inform the mother that many women in our country die due to excessive bleeding during pregnancy and/or delivery. This is a life-threatening complication, and women should be fully aware of it. Also, inform the mother-in-law, the husband or other relatives about the consequences of bleeding during pregnancy and delivery, if the women are left untreated.

### **Prolapse/presentation of any foetal part other than the head**

These pictures at the back of the card show abnormal presentation of the foetus during delivery (Fig. 4), i.e.

- cord around the neck
- face presentation
- breech presentation
- hand prolapse
- leg prolapse
- cord prolapse

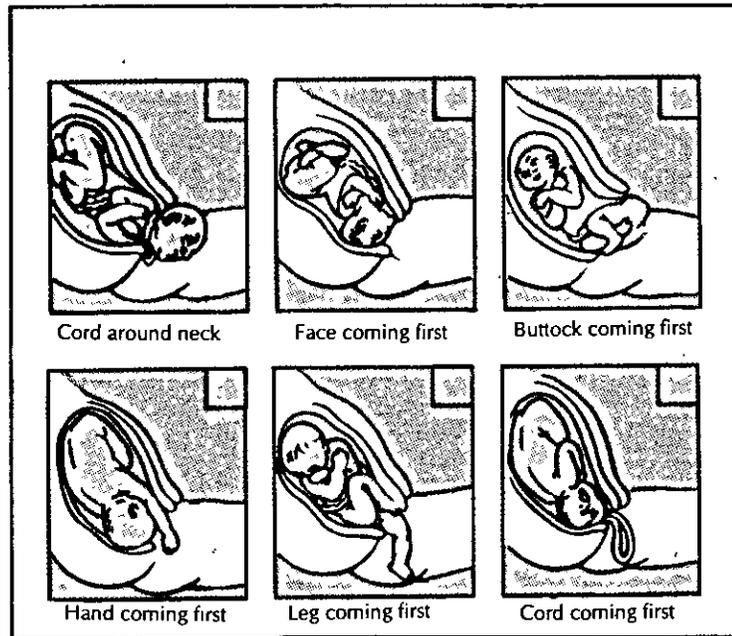


Fig.4. Abnormal presentations of the foetus during delivery

Ask the mother: **'What do you understand from this picture?'**

Then explain to her each of the pictures. Tell her that she must be taken to the THC in case of any abnormal presentation during delivery. Explain to her the following:

In 96 percent of the cases, women deliver normally, by head presentation (the baby's head comes out first). If presentation is other than head, there is an impending danger, and the patient must immediately be taken to the hospital/THC.

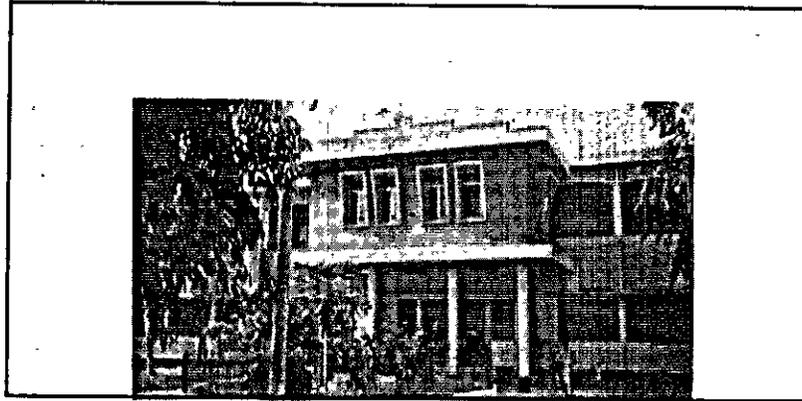
Inform the mother that certain harmful traditional practices (like putting the prolapsed part back into the uterus by massaging oil, etc.) exist in the community. These practices, however, can endanger the life of the mother or the foetus, or both.

Tell the mother and her relatives: "You should not allow anyone other than a medically trained personnel (FWV, nurse, or doctor) to handle when there is an abnormal presentation of the foetus during delivery as shown in the picture".

The FWA must remember that all women are at risk of developing pregnancy-related complications at any time during pregnancy, labour, or puerperium. Even under the best of circumstances, when a woman's nutritional status is good, and she has regular antenatal check-ups, she may develop complications which cannot be predicted or prevented. Therefore, all deliveries must be conducted under the supervision of medically trained personnel, like doctors, nurses, midwives, FWVs, or trained TBAs, even in case of home delivery.

The back of the card also shows the picture of a THC (Fig. 5). Show the mother this picture and ask her: **'What do you know from this picture?'**

Reiterate to her that she must go to a hospital or THC in case of any complication(s).



**Fig.5.** Thana Health Complex (THC)

The following messages are also included on the back of the card:

- The pregnant woman must go to the nearest H&FWC/SC at least three times during her pregnancy for ANC.
- The pregnant woman must go to the nearest hospital for any complication(s) during pregnancy, delivery, after delivery.
- The pregnant woman should go to the nearest hospital, if she appears pale or if her eyes look yellow.
- During delivery at home, call the trained TBA.
- The mother should take postnatal care services from the FWV at the H&FWC/SC within one and half months of delivery

These messages are to be clearly conveyed to the pregnant woman by the FWA at the time of explaining the pictorial card to her. After completing the explanation, the FWA asks for the feedback from the woman to see whether she has clearly understood each picture on the card and what to do if any of these circumstances occurs. Feedback is obtained by asking the following questions:

- *Do you understand the picture here?*
- *Can you tell me what you would do, if you had this problem?*
- *Do you understand what this means? (Point to a picture and ask this question)*
- *Can you tell me where this place is? (Ask this question while pointing to the picture of the THC)*

The FWA is to advise the pregnant woman and her family members: **“Save some money from their daily expenditures for transport and drugs that may be required during an obstetric emergency”.**

The process for monitoring the use of the pictorial card is discussed later in the manual.

## Section II

### Record Keeping: Pregnant Women Register

This section of the manual is designed to explain the process involved in recording the services provided to pregnant women. This will enable the service providers to perform and follow-up on the effectiveness of the referral system from the community to the union level. The follow-up of referral process, also develops a linkage between two service providers of community and union level.

#### Community Level

##### What is Pregnant Women Register?

A **Pregnant Women Register** is used as a tool for promoting referral and linkage among the different service delivery tiers. When pregnant women are identified, the FWA usually records the names and addresses of the pregnant women on a piece of paper and gives it to the FWV. This often gets lost; as a result, no records of the pregnant women exist, anywhere. Therefore, to monitor referral and linkage for EOC, this **Pregnant Women Register** is an effective record keeping tool. Two copies of almost the same registers for pregnant women are used by both the FWA and FWV (Table 2 by FWA and Table 3 by FWV). The register is thin and can easily be carried to the field and outreach centres.

The Pregnant Women Register is designed to know whether the pregnant women referred at the community level actually visited the referral centre, or whether they received any antenatal or postnatal care.

This register records the pregnancy- and delivery-related information of all pregnant women in an FWA's area, and contains information on current pregnancies and the services provided, including background information of the women and maternal health care services provided. It also contains delivery-related information, such as type of birth attendant, place of delivery, outcome of last pregnancy, postnatal care, and referral. The distribution of the pictorial cards used for raising community awareness is also recorded and later monitored in this register.

## Table 2. Pregnant Women Register

(For Family Welfare Assistant/Fieldworker)

THANA: \_\_\_\_\_

FWA/Field Worker's Name: \_\_\_\_\_

Unit No: \_\_\_\_\_

Union: \_\_\_\_\_

1	2	3	4	5	6	7	8	9	10	11	12
Sl No.	Date of first visit	Women's and husband's names	Village and para	House-hold No.	Couple No.	Age of pregnant woman	LMP	EDD	Total no. of pregnancies	Antenatal and pictorial cards given by FWV, MA, and FWA and date	Name of trained TBA of that area
	1 2 3 >3										

13	14	15	16	17	18	19	20		21
FWV's visiting date	Card shown to FWV/MA Yes/No	High-risk pregnancy (specify the problem)* Yes/No	Date of delivery/ pregnancy outcome	Delivery attended by **	Place of delivery: home, FWC, THC, DH, MCWC, others	Date of postnatal care received	Referral ***		Comments
							Date	Visited Y/N	
1 2 3 >3	1 2 3 >3								

- \* Only to be filled up by FWV by using high-risk code from the code list
- \*\* TTBA, Dai, relative, FWV, midwife, nurse, doctor, others
- \*\*\* Please mention where and who referred to by and date

**Table 3: Pregnant Women Register**  
(For Family Welfare Visitor (FWV)/Paramedic)

THANA: \_\_\_\_\_

Family Welfare Visitor's Name: \_\_\_\_\_

Unit No.: \_\_\_\_\_

Union: \_\_\_\_\_

1	2	3	4	5	6	7	8	9	10	11	12
Sl. No.	Date of first visit	Women's and husband's names	Village and para	House-hold no.	Couple no.	Age of pregnant woman	LMP	EDD	Total no. of pregnancy	Antenatal and pictorial cards given by FWV, MA, and FWA and date	Referred by ****
	1 2 3 >3										1 2 3 >3

13	14	15	16	17	18	19	20		21
FWV's visiting date	Card shown to FWV/MA Yes/No	High-risk pregnancy (specify the problem)* Yes/No	Date of delivery/ pregnancy outcome	Delivery attended by **	Place of delivery: home, FWC, THC, DH, MCWC, others	Date of postnatal care received	Referral ***		Comments
							Date	Visited Y/N	
1 2 3 >3	1 2 3 >3								

- \* Only to be filled up by FWV by using high-risk code from the code list
- \*\* TTBA, Dai, relative, FWV, midwife, nurse, doctor, others
- \*\*\* Please mention where and who referred to and date
- \*\*\*\* TBA, FWA, Relative, self, HA, quack, other for AN

## **Who will Use the 'Pregnant Women Register'?**

The FWA will enlist a pregnant woman in the register identified during her routine rounds, and give her an identification (ID) number. She will also give the pregnant woman a pictorial card bearing the same ID number, and will update the register on subsequent visits. As part of her duties, the FWA will regularly copy the information, recorded in her register, into the corresponding Register kept at the H&FWC.

It is also necessary for the FWV to have a copy of the list of pregnant women at the H&FWC, so that she can identify those women who have not attended the centre for ANC or other maternity-related services and can take necessary steps. During the subsequent visits, the FWA will follow-up on those women and report back to the FWV when she goes to update the Pregnant Women Register copy kept at H&FWC.

The FWV will record information on the services provided to each pregnant woman in the register kept at the H&FWC and will also enquire whether the women seeking services at the H&FWC have the pictorial cards. The information on the services provided by the FWV to a particular pregnant woman is updated in the FWA's Pregnant Women Register (from the H&FWC Registers).

When a pregnant woman without a pictorial card visits the FWV for ANC, the FWV will give her a card and explain it to her in detail. The FWV will record this on a separate page (the back pages of the register can be used for this purpose) and will share the information with the FWA. This can be done during the fortnightly and monthly meetings at the H&FWC, and also at those service-delivery points jointly attended by the FWV and the FWA.

## **How to Fill up the 'Pregnant Women Register'**

The Pregnant Women Register has 21 columns. Each field worker has a separate register in which she records information about the pregnant women identified in her catchment area. She records background information and reproductive history of the women in column 1-10. An instruction on how to use this register is as follows:

- The FWA/field worker gives an ID number to each pregnant woman, which is to be entered in column 1.
- Records the home visitation date in column 2.
- Records the names of the pregnant woman and her husband, including their address, in column 3 and 4.

- Copies the pregnant woman's household and the couple numbers from the FWA Register and records these in column 5 and 6.
- Calculates the woman's age and record it in column 7.
- Determines the date of the last menstrual period (LMP), and then calculates the expected date of delivery (EDD, i.e. date of LMP and add 9 months and 7 days). She enters this information in column 8 and 9.
- Records the total number of pregnancies experienced by the woman in column 10.
- Column 11 is reserved for recording information on monitoring of the pictorial card, i.e. whether the woman received it and, if she did, who gave it to her. The FWA, FWV, or the MA may distribute the pictorial cards either at the clients' homes or at the H&FWC/SCs. Therefore, this column is only used to record the date and designation of the particular provider who gave the pictorial card.
- The FWA writes the name of the TTBA of that area, if any, in column 12 in the register (Table 2). The purpose is to remind the FWA to inform the pregnant woman about seeking help from the nearest TTBA during delivery.

1	2	3	4	5	6	7	8	9	10	11	12
Sl. no.	Date of first visit	Women's and husband's names	Village and para	Household no.	Couple no.	Age of pregnant woman	LMP	EDD	Total no. of pregnancies	Pictorial and ANC cards given by FWV, MA, and FWA and date	Name of TTBA of that area
1 2 3 >3											
1 2 3 >3											

The information recorded in column 12-15 of the register kept at the H&FWC (Table 3) is actually the responsibility of the FWV. These are the records of services provided to the pregnant women by the FWV. They include information regarding:

- Who referred for antenatal care (column 12).
- Dates of visit to the FWV (column 13).
- Whether showed the card to the FWV (column 14).
- Whether pregnancy is at high risk (column 15).

12	13	14	15
Referred by	FWV's visiting date	Card shown to FWV/MA Yes/No	High-risk pregnancy (specify the problem) Yes/No
1	1	1	
2	2	2	
3	3	3	
>3	>3	>3	

While updating the FWV's register, the FWA/field worker also updates the column 13-15 of her register with the information which has been recorded in the FWV's register.

The code list for the symptoms for identifying high-risk pregnancy which is to be used by the FWV in column 15 is as follows:

<b>Code list for identifying high-risk pregnant women</b>	
If a pregnant woman has one or more of the following symptoms, she will be identified as a high-risk pregnant woman by the FWV. The FWV will use the following code numbers at the Pregnant Women Register kept at the H&FWC:	
<b>Code number</b>	<b>Symptom</b>
1	Primi
2	Woman aged less than 20 years
3	Woman aged more than 35 years
4	Mother's height less than 4'-10" or 145 cm
5	Birth interval between two pregnancies is less than two years
<b>History of previous pregnancy</b>	
6	Bleeding during pregnancy and or during and after delivery
7	Labour for more than 24 hours
8	Obstructed labour
9	Caesarian section
10	Retained placenta
11	Still-birth
12	Death of a newborn within 48 hours of delivery
13	Swelling of legs or body
14	Repeated fits with convulsion
15	Postpartum repair of fistula.
<b>Current pregnancy</b>	
16	Severe anaemia (+ + or more)
17	High blood pressure (140/90 or more)
18	Albumin in urine (+ + or more)
	Any of the complications shown in the pictorial card, specify.

Column 16-18 are to be completed by the FWA. She collects the information such as date of delivery, pregnancy outcome, birth attendant and place of delivery from the mother or her relatives during her routine home visits. The FWA/field worker also updates the column 16-18 of the register kept at the H&FWC when she attends any meeting at the H&FWC.

- In column 16, two types of information are to be collected and recorded: the date of delivery and outcome of the current pregnancy, i.e. live-birth, still-birth, abortion, or miscarriage.
- The type of person who attended the delivery, i.e. FWV, doctor, TTBA, etc., is to be recorded in column 17. If the delivery attendant is anyone else like relative or neighbour, that should be specified as well. This information is to be collected by the FWA during her routine visit after the childbirth.
- Column 18 records the place of the delivery, e.g. at home, at the H&FWC or THC, MCWC or district hospital or any other hospital or clinic.
- Either the FWA or the FWV in their register, whoever serves the woman first, can fill up column 19-21, and this can be updated subsequently.
- Any visits made by the woman to the FWV or any other trained provider or any visits made by the provider to the woman at home within 42 days of delivery are to be referred to as postnatal visits, and will be recorded in column 19. The date of visit and the type of provider delivering the service are also recorded here.
- Column 20 is used to record whether a particular pregnant woman is referred for pregnancy or delivery-related complications and the date of referral. This referral could be made by the FWA to the H&FWC, or by the FWV to the THC. The information on whether the woman has visited the referral centre or not will also be recorded here.
- Finally, if there is any further comment about any particular pregnancy or delivery, it can be recorded in the last column (column 21).

16	17	18	19	20		21
Date of delivery/ Pregnancy outcome	Delivery attended by **	Place of delivery: home, H&FWC, THC, DH, MCWC, other	Date of postnatal care received	Referral ***		Comments
				Date	Visited Y/N	

## Union Level

Several registers for recording maternal and child health and family planning services provided at the union level exist, both at H&FWC and SC. The government's Antenatal Care Register (ANCR) at the H&FWC records maternity-related services, i.e. types of ANC services provided, number of visits, delivery care and postnatal visit, etc.

To follow-up the pregnant women properly who did not come for antenatal checkups, the FWVs at each H&FWC are given the number of Pregnant Women Registers corresponding to the number of FWAs in that union. This information is not available in the ANCR, which is a record-keeping register for the services given. This system also helps establish a linkage between the two service providers, so that they can follow-up pregnant women who have not visited the FWV. She will use this register kept at the H&FWC and use it for recording information on services provided there by her, and take it to the SC. The Pregnant Women Register is an effective tool for recording as well as monitoring referral of pregnant women from the community to the union level and also helps develop a linkage between the FWA/Field worker and the FWV/paramedic.

## Section III Monitoring Tools

This section discusses the supervisory tools, like checklists, which help the supervisors to assess and to give feedback to service providers, i.e. FWAs/Field workers and FWVs/Paramedics, on the strengths and weaknesses of the service they provide regarding EOC to be performed by them and its quality. Based on this, the service providers can revise technical norms to strengthen the referral and linkage system for EOC.

These checklists for FWAs and FWVs include the following components:

Provision of antenatal care  
Explanation of the pictorial card  
Advice about postnatal care

These checklists are made up of 'yes' and 'no' questions that can be answered during an observation of the interaction between the health worker/paramedic and her clients, review of the health records at the service-delivery site. The '0'marks on the checklists indicate the number of pregnant women observed. The checklists can, in most instances, be used as they are. These checklists are used by the FPI, the Supervisor of FWA/Field Worker, and the Senior FWV/MO-MCH, the Supervisor of FWV/Paramedic.

# Referral and Linkage for Emergency Obstetric Care

## Observation Checklist for FWAs

Union \_\_\_\_\_

Date: \_\_\_\_\_

FWA's name: \_\_\_\_\_

Starting time \_\_\_\_\_

Ending time: \_\_\_\_\_

Did the FWA do the following:

- |     |  |       |
|-----|--|-------|
| 1.  | Ask for antenatal and pictorial cards?                                 | Y/N   |
| 2.  | Check the antenatal card to see whether the woman has visited the FWV? | Y/N   |
| 3.  | Encourage the woman to visit the FWV?                                  | Y/N   |
| 4.  | Explain each picture depicted in the pictorial card?                   | Y/N/P |
| 5.  | Deliver the message correctly?   | Y/N/P |
| 6.  | Assess the knowledge of the pregnant woman?                            | Y/N   |
| 7.  | Inform the referral points to go in case of an emergency?              | Y/N   |
| 8.  | Advise the woman to seek the help of TTBA at the time of delivery?     | Y/N   |
| 9.  | Inform the date, place and the time of nearby SC?                      | Y/N   |
| 10. | Update the records in the pregnant mother list?                        | Y/N   |

# Referral and Linkage for Emergency Obstetric Care

## Observation Checklist for FWVs

Union: \_\_\_\_\_

Date: \_\_\_\_\_

### Observed at FWC/SC

#### Types of clients observed:

- |    |   |        |
|----|---|--------|
| 1. | Did the FWV explain the pictorial card in the group health education session? | Y/N/NA |
| 2. | Did the FWV encourage the FWA/TTBA to bring the pregnant woman to FWC/SC ?    | Y/N/NA |
| 3. | Was the local dai (TTBA) present at the spot?                                 | Y/N/NA |
| 4. | Was the antenatal mother list brought to the SC?                              | Y/N/NA |

#### Antenatal care

- |    |   |            |
|----|---|------------|
| 5. | Did the FWV ask for the antenatal and pictorial card? |            |
| 1. | Yes   | 0000000000 |
| 2. | No  | 0000000000 |

6. Did the FWV explain the pictorial card to the pregnant woman?
- |    |           |            |
|----|-----------|------------|
| 1. | Yes       | 0000000000 |
| 2. | Partially | 0000000000 |
| 3. | No        | 0000000000 |
| 4. | NA        | 0000000000 |
7. Did the FWV convey the messages of the card correctly?
- |    |           |            |
|----|-----------|------------|
| 1. | Yes       | 0000000000 |
| 2. | Partially | 0000000000 |
| 3. | No        | 0000000000 |
| 4. | NA        | 0000000000 |
8. Did the FWV assess the knowledge of pregnant woman about the pictorial card (by asking questions or by referring to the pictures or in any other way)?
- |    |     |            |
|----|-----|------------|
| 1. | Yes | 0000000000 |
| 2. | No  | 0000000000 |
| 3. | NA  | 0000000000 |
9. Did the FWV encourage the pregnant woman to go to hospital if any of those problems occur during pregnancy and/or delivery?
- |    |     |            |
|----|-----|------------|
| 1. | Yes | 0000000000 |
| 2. | No  | 0000000000 |
| 3. | NA  | 0000000000 |
10. Did the FWV provide the following services:
- a) take previous pregnancy history?
- |    |     |            |
|----|-----|------------|
| 1. | Yes | 0000000000 |
| 2. | No  | 0000000000 |
| 3. | NA  | 0000000000 |
- b) check blood pressure?
- |    |     |            |
|----|-----|------------|
| 1. | Yes | 0000000000 |
| 2. | No  | 0000000000 |
| 3. | NA  | 0000000000 |

c) take height and weight? .

1.	Yes	0000000000
2.	No	0000000000
3.	NA	0000000000

d) check albumin level in urine?

1.	Yes	0000000000
2.	No	0000000000
3.	NA	0000000000

e) check haemoglobin level?

1.	Yes	0000000000
2.	No	0000000000
3.	NA	0000000000

f) check height of uterus (if > 3 months)?

1.	Yes	0000000000
2.	No	0000000000

11. Did the FWV advise the woman to seek TTBA's assistance during delivery?

1.	Yes	0000000000
2.	No	0000000000

12. a) Did the FWV update the record in the antenatal mother list?...

1.	Yes	0000000000
2.	No	0000000000
3.	NA	0000000000

b) Did the FWV update the record in the antenatal card?

1.	Yes	0000000000
2.	No	0000000000
3.	NA	0000000000

13. Did the FWV ask the women to visit her again ?

1.	Yes	0000000000
2.	No	0000000000

## Postnatal care

14.	Did the FWV ask about or examine the following?	
	a) haemorrhage	
	1. Yes	0 0 0 0 0 0 0 0 0 0
	2. No	0 0 0 0 0 0 0 0 0 0
	b) fever	
	1. Yes	0 0 0 0 0 0 0 0 0 0
	2. No	0 0 0 0 0 0 0 0 0 0
	c) foul-smelling discharge	
	1. Yes	0 0 0 0 0 0 0 0 0 0
	2. No	0 0 0 0 0 0 0 0 0 0
	d) height of uterus	
	1. Yes	0 0 0 0 0 0 0 0 0 0
	2. No	0 0 0 0 0 0 0 0 0 0
15.	Did the FWV refer the pregnant woman to the THC for complication(s)?	
	1. Yes	0 0 0 0 0 0 0 0 0 0
	2. No	0 0 0 0 0 0 0 0 0 0
	3. NA	0 0 0 0 0 0 0 0 0 0

## Examples for filling up the 'Observation Checklist'

**Example 1:** A woman named Hasina Begum is living at Sirajkathi Village of Rajghat Union. She is 24 years old, and has two daughters. She had her last menstruation three months back. She tried to recall the date and said it was June 25, 1997. The FWA/field worker gave her a pictorial card, but did not explain it to her on August 5, 1997 and asked her to see the FWV/Paramedic. The field worker informed the date and the time of the H&FWC to the pregnant woman. She also gave the name of the TTBA living nearby and asked the pregnant woman to seek her assistance for the delivery. She also entered the name of the pregnant woman in her pregnant women register. Accordingly, the pregnant woman visited the FWV on August 16, 1997.

In this case when the FPI/supervisor observes the activities of the FWA/field worker, she fills it up in the following manner.

Did the FWA do the following:		
1.	Ask for antenatal and pictorial cards?	Y/N
2.	Check the antenatal card to see whether the woman has visited the FWV?	Y/N
3.	Encourage the woman to visit the FWV?	✓/N
4.	Explain each picture depicted in the pictorial card?	Y/✓/P
5.	Deliver the message correctly?	Y/✓/P
6.	Assess the knowledge of the pregnant woman?	Y/✓
7.	Inform the referral points to go in case of an emergency?	Y/✓
8.	Advise the woman to seek the help of TTBA at the time of delivery?	✓/N
9.	Inform the date, place and the time of nearby SC?	✓/N
10.	Update the records in the pregnant mother list?	✓/N

**Example 2:** Hasina Begum visited the FWV/Paramedic as advised by the FWA/field worker, but she forgot to take the pictorial card along with her to the H&FWC. When she reached the centre, the FWV/Paramedic asked to show the antenatal and pictorial cards. When she found out that the pregnant woman did not have it with her, she then gave her another pictorial card and explained it to her, while showing her the pictures. She did not ask Hasina whether she understood the message or not. She then began with the antenatal check up by checking Hasina's blood pressure and taking the height and weight. The FWV/Paramedic recorded the date of the woman's visit and informed her of her next check up date .

In this case, when the Senior FWV/Supervisor observes the activities of the FWV/Paramedic, she fills it up in the following manner:

**Antenatal care:**

5.	Did the FWV ask for the antenatal and pictorial card?	
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	<input type="checkbox"/> 0000000000
6.	Did the FWV explain the pictorial card to the pregnant woman?	
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	Partially	<input type="checkbox"/> 0000000000
3.	No	<input type="checkbox"/> 0000000000
4.	NA	<input type="checkbox"/> 0000000000
7.	Did the FWV convey the messages of the card correctly?	
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	Partially	<input type="checkbox"/> 0000000000
3.	No	<input type="checkbox"/> 0000000000
4.	NA	<input type="checkbox"/> 0000000000
8.	Did the FWV assess the knowledge of pregnant woman about the pictorial card (by asking questions or by referring to the pictures or in any other way)?	
1.	Yes	<input type="checkbox"/> 0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000
3.	NA	<input type="checkbox"/> 0000000000
9.	Did the FWV encourage the pregnant woman to go to hospital if any of those problems occur during pregnancy and/or delivery?	
1.	Yes	<input type="checkbox"/> 0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000
3.	NA	<input type="checkbox"/> 0000000000

10. Did the FWV provide the following services?

a) take previous pregnancy history?

1.	Yes	0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000
3.	NA	0000000000

b) check blood pressure?

1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	0000000000
3.	NA	0000000000

c) take height and weight?

1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	0000000000
3.	NA	0000000000

d) check albumin level in urine?

1.	Yes	0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000
3.	NA	0000000000

e) check haemoglobin level?

1.	Yes	0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000

f) take height of uterus (if > 3 months)?

1.	Yes	0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000

11. Did the FWV advise the woman to seek TTBA's assistance during delivery?

1.	Yes	0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000

12. a) Did the FWV update the record in the antenatal mother list?

1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	0000000000
3.	NA	0000000000

b) Did the FWV update the record in the antenatal card?		
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	0000000000
3.	NA	0000000000
13. Did the FWV ask the mother to visit her again?		
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	0000000000
14. Did the FWV refer the pregnant woman to the THC for complication(s)?		
1.	Yes	0000000000
2.	No	0000000000
3.	NA	<input checked="" type="checkbox"/> 0000000000

**Example 3:** Two more pregnant women named Rehana Khatun and Rabiya Begum visited the FWV/Paramedic on the same day of Hasina Begum's visit. The FWV/Paramedic did not ask Rehana about her pictorial card. When Rabiya came, the FWV asked Rabiya to show her card, but she saw that Rabiya did not have one. She, then gave one pictorial card to her and explained only up to the third picture. She asked Rabiya whether she understood the pictures of the card explained to her and told her to go to the THC if any of the complication(s) occurred. After examining the pregnant women, the FWV/Paramedic identified that Rehana was bleeding excessively; Rehana informed that she was bleeding from the previous day and was immediately referred to the THC.

In these two cases, the Senior FWV/Supervisor fills up her observation checklist in the following manner:

**Antenatal Care**

5. Did the FWV ask for antenatal and pictorial card?		
1.	Yes	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 0000000000
2.	No	0000000000

6. Did the FWV explain the pictorial card to the pregnant woman?		
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	Partially	<input type="checkbox"/> 0000000000
3.	No	<input checked="" type="checkbox"/> 0000000000
4.	NA	<input type="checkbox"/> 0000000000
8. Did the FWV assess the knowledge of pregnant woman about the pictorial card (by asking questions or by referring to the pictures or in any other way)?		
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000
3.	NA	<input type="checkbox"/> 0000000000
9. Did the FWV encourage pregnant woman to go to hospital if any of those problems occur during pregnancy and or delivery?		
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	<input checked="" type="checkbox"/> 0000000000
3.	NA	<input type="checkbox"/> 0000000000
15. Did the FWV refer the pregnant woman to the THC for complication(s)?		
1.	Yes	<input checked="" type="checkbox"/> 0000000000
2.	No	<input type="checkbox"/> 0000000000
3.	NA	<input checked="" type="checkbox"/> 0000000000

After the observations are made, the supervisors for both FWA/Field worker and FWV/Paramedic use these checklists to identify the gaps in service delivery and give the providers feedback, so that they can improve the quality of service delivery in future and help establish a referral and linkage mechanism for EOC.

## Section IV Reporting Tools

This section discusses the reporting formats to be used for monitoring the progress of EOC service delivery through reporting performance at the different service-delivery tiers. These formats also act as a linkage tool between the service-delivery tiers.

### **Rationale for Reporting**

Reporting at different levels of service delivery are needed:

- To further improve the referral and linkage system.
- To identify gaps by monitoring the effects of the activities after checking the reports received, like information about the services delivered or the number of referrals and names of referred women in the area at a glance.
- To help establish linkage between the different service delivery tiers.
- To follow-up that all the clients referred, have used the referral facility.
- To help supervisors give appropriate feedback to the FWAs/field workers and FWVs/paramedic at monthly meetings involving the different service delivery providers, thus bringing about improvement in service delivery by identifying the gaps between referral performance and attendance.

### **Community Level**

The FWA/field worker prepares a monthly report using the 'Report on Pregnancy and Childbirth' form. The form is completed based on information recorded in her 'Pregnant Women Register.' These include the number of old and new pregnancies, number of pictorial cards distributed and by whom, number of pregnant women carrying the cards at the facilities, types of referees for ANC, total number of deliveries, types of birth attendants, place of delivery and referral, if any. The previous reporting format had information on ANC, number of high-risk pregnant women, PNC and deliveries attended by the TTBA and the FWV/MA. This previous reporting format was replaced, however, since it did not have any provision for reporting information, like the number of pregnant women who received care from outside the H&FWC/SC, or the number of deliveries conducted at institutional facilities or by qualified trained personnel, which are important indicators for the referral and linkage of EOC.

This 'Pregnancy and Childbirth Report' is compiled from the FWA's report by the FPI. The report is reviewed by the TFPO and concerned officials at the Thana level in the supervisory meetings at the thana office every month, and disseminated to the union level staff at the H&FWC fortnightly meeting. These reporting formats are shown as Table 4.

**Table 4: Report on pregnancy and child birth**

Thana: \_\_\_\_\_

Union: \_\_\_\_\_

Month: \_\_\_\_\_

FWA's Name/ID	New Pregnancy identified	# of deliveries	# of women given birth received ANC***	Outcome of pregnancy				Place of delivery					Delivery attendant						# of cases referred by		Comments	
				Live	Still birth	Abortion		Home	H&FWC	THC	DH	Other	Ne/Re**	TBA	TTBA	FWV	Nurse	Doctor	Other	FWV		FWA
						MR	SP															
Total:																						

- Abortion will be excluded.
- \*\* Neighbour/Relative
- \*\*\* Care received by FWV/MA/Doctor
- TT received will not be considered here as ANC

**Table 4 (cont.)**  
**Report on Pregnancy and Child Birth**

Thana: \_\_\_\_\_

Union: \_\_\_\_\_

Month: \_\_\_\_\_

Total pregnant women		# of Pregnant women referred for ANC by						# of monthly distribution of Pictorial and Antenatal Cards by				# of Pregnant women visited			# of Pregnant women who brought the card to the H&FWC			Place of delivery	Birth attendant	Outcome of pregnancy	Comments
Old	New	FWA	HA	TTBA	Self	Other TBA Quack	FWA	FWV	MA	Other	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>					
																		Home H&FWC THC DH Other	Relation/ Neighbor TBA TTBA FWV Nurse Doctor Other	Live Still Died M/R Abortion	

Prepared by: \_\_\_\_\_  
 Date: \_\_\_\_\_

## Union Level

The FWV/paramedic prepares the service statistics regarding maternity services provided at the H&FWC and SCs. Monthly information on ANC, number of high-risk pregnant women, PNC, and deliveries attended by TTBAAs or FWV/MA are recorded in the MIS-3 form. This form does not have any provision for reporting information, like number of pregnant women who received care from sources outside the H&FWC/SC, or the number of deliveries conducted at institutional facilities or by qualified trained personnel. These are important indicators for the maternal health status and referral and linkage for EOC services of a particular union or thana. Therefore, the FPI will compile "Pregnancy and Childbirth Report," which is to be prepared by the FWA using the "Pregnancy and Childbirth Report" form. This report contains the number of old and new pregnancies, total number of deliveries, types of birth attendants, places of delivery, and referral, if any. The FPI will ensure that the FWV/Paramedic receives the report on time.

The FWV prepares a monthly list of high-risk pregnant women in a particular union who are referred to the THC. She then sends it to the MO-MCH. Thereafter this report is sent to the Thana Health and Family Planning Officer (TH&FPO) for further action, i.e. to check whether the women referred actually came to the THC or not. The maternity staff of the THC can monitor this and send a report back to the MO-MCH. These reports are to be discussed at the monthly supervisory meetings. In this way referrals can further be improved. The reporting format is shown in Table 5.

**Table 5: List of High Risk Pregnant Women**

Thana: \_\_\_\_\_

Union: \_\_\_\_\_

Month: \_\_\_\_\_

FWA's Unit #	Sl.No. (as mentioned in the AML)	Woman's & Husband's Name	Village & Para Name	Age	Total Pregnancies	LMP	EDD	# of AN visits (1,2,3) received	Specific problem for referral	Comments & signature	Will be used by THC Doctor		
											Service given Y/N	Referral Y/N	Comment

Submitted by: \_\_\_\_\_

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

## **Instructions for Filling up the 'High-risk Pregnant Women List'**

The 'High-Risk Pregnant Women List' is used to send the information about pregnant women identified as high risk to the Thana Health Complex for special attention. Information for the list is collected from the Pregnant Women Register. Information about the high-risk pregnancies is recorded specially marked as 'yes' in the column 12 of the Pregnant Women Register kept at the H&FWC. Information of those pregnant women whose expected date of delivery (EDD) are within one month is only listed.

- Column 1 contains the unit number of a particular union where the high-risk pregnant woman lives in.
- In column 2 the same serial number given in the Pregnant Women Register is to be recorded.
- Column 3 records the name of the pregnant woman and her husband.
- Column 4 records the address of the pregnant woman mentioned in the Pregnant Women Register.
- Column 5 records the age of the pregnant woman.
- In column 6, the total number of pregnancy is recorded.
- The LMP and EDD mentioned in the columns number 8 and 9 of the Pregnant Women Register are to be copied and recorded in the column 7 and 8.
- In column 9, whether the pregnant woman identified as high risk has received antenatal care from FWV/MA/Paramedic/Doctor and the total number of visits made by her is to be recorded. These information are available in column 13 of the Pregnant Women Register.
- Column 10 records the reasons for identifying the pregnant women as high risk.
- In column 11, any information, which is necessary or important to be mentioned, is to be added.
- Column 12 is to be filled up at the Thana Health Complex.
- Signature of the person who prepared the report and the date are to be put at the end.

## **Thana Level**

The TH&FPO is responsible for the overall supervision and management of services provided at the thana level (THC). He/she prepares a monthly report of the THC activities, and sends it to the Civil Surgeon's office at the district level. Separate registers are used for in- and out-door patients, to monitor the number of maternity admissions, the types of service provided, and the number of referrals. There is, however, no provision for keeping records on the person who referred the clients in the maternity unit of the THC. Thus, one additional column for information about "who referred" is added in the THC Maternity Register, so that the TH&FPO can follow-up if the women referred from the union level used this facility.

## Section V

### Availability of EOC Services

This section is designed to make the programme managers and other staff members aware of the EOC services currently available in Bangladesh with the specific responsibilities of the personnel at the community, union and thana levels regarding maternal health and EOC services. The section also records some of the suggestions gathered from various related experiences.

#### EOC Service Delivery in Bangladesh

The Government of Bangladesh has a fairly extensive network of maternal and child health (MCH) services, which extend from the community to the divisional level in the country. This infrastructure comprises the following:

##### a) Community Level

**The Family Welfare Assistant (FWA)** is a female field worker responsible for performing maternal and child health and family planning (MCH-FP) services at the community level, with emphasis on preventive services. She is trained to advise clients on maternal nutrition, tetanus toxoid immunisation, safe delivery and motivating pregnant women to go to the Family Welfare Visitor (FWV) for antenatal check up, to seek the TTBA's assistance during delivery, and to go to the THC if and when any pregnancy or delivery related complication arises.

**The Trained Traditional Birth Attendant (TTBA)**, working at the community level, is responsible for assisting women at the time of birth to provide safe-delivery services and neonatal care. She is also trained to advise the pregnant women about care during pregnancy, e.g. maternal nutrition, tetanus toxoid immunization. She motivates the pregnant women to go to the Family Welfare Visitor (FWV) for antenatal check up.

##### b) Union Level

**The Health and Family Welfare Centre (H&FWC)** is a static service-delivery centre at the union level where MCH-FP services are provided by a female paramedic, the FWV.

**Satellite Clinic (SC)** is the satellite service-delivery centre at the union level. The FWV conducts eight SCs per month in her catchment area and provides both preventive and curative services there and refers the clients to a higher level health facility like THC when needed.

### **c) Thana Level**

The **Thana Health Complex (THC)** at the thana level, is the first level referral facility where facilities for both in- and out-patient care, including basic emergency obstetric care (EOC) services, exist. Here, qualified MBBS doctors, nurses, and senior FWVs are the providers of MCH-FP services.

### **d) District Level**

The **Maternal and Child Welfare Centre (MCWC)** at the district level provides MCH-FP services, including the basic EOC services. The complicated cases which can not be managed at this centre are referred to the district hospital or to a medical college hospital.

The **district hospitals**, the majority of which have 50 beds, are regarded as secondary referral facilities. All types of general health care, maternal and child health care and comprehensive emergency obstetric services are provided here. Obstetric complications that cannot be managed at the thana level are referred to the district hospital. Finally, complicated cases which cannot be managed at the district hospital are referred to tertiary hospitals; such as medical college hospitals, where comprehensive EOC is available at the division level. These hospitals provide back-up support for the lower level hospitals.

Despite the country's comprehensive infrastructure for delivering health and related services, the availability, utilisation and delivery of services are delayed due to lack of appropriate and adequate referral knowledge and effective linkage.

## **Programme Components for Reducing Maternal Mortality**

To address the issue of delays for reducing maternal death and illness, the availability of accessible medical facilities is critical. EOC consists of measures and services (case management) provided to women who have complications during pregnancy, childbirth and within 42 days of childbirth, without which the lives of these women are seriously endangered and may even end in death. The proposed EOC programme components are outlined in Table 6.

Table 6. Programme components of EOC

Programme level	Programme activity
District: At District Hospitals	<ul style="list-style-type: none"> <li>■ Comprehensive EOC               <ul style="list-style-type: none"> <li>- All basic EOC functions</li> <li>- Caesarean section</li> <li>- Blood transfusion</li> </ul> </li> </ul>
Thana: At Thana Health Complex (THC)	<ul style="list-style-type: none"> <li>■ Basic EOC               <ul style="list-style-type: none"> <li>- Oxytocics (injectable)</li> <li>- Antibiotics (injectable)</li> <li>- Anticonvulsants (injectable)</li> <li>- Manual removal of placenta</li> <li>- Assisted vaginal delivery</li> </ul> </li> <li>■ Refer and arrange transport</li> <li>■ Vacuum aspiration</li> </ul>
Union: At H& FWC	<ul style="list-style-type: none"> <li>■ First Aid EOC               <ul style="list-style-type: none"> <li>- Ergometrine (injectable)</li> <li>- Antibiotics (injectable)</li> <li>- Anticonvulsants (injectable)</li> </ul> </li> <li>■ Refer and arrange transport</li> </ul>
Community	<ul style="list-style-type: none"> <li>■ Community education               <ul style="list-style-type: none"> <li>- recognition of complications</li> <li>- when to seek medical care</li> <li>- where to go for medical care</li> </ul> </li> <li>■ Community mobilization               <ul style="list-style-type: none"> <li>- arrange transport and finances</li> <li>- arrange for blood transfusion</li> </ul> </li> </ul>

Source: UNICEF, 1993 [3]

In the proposed programme, a pregnant woman identified in the community level is referred to the union level H&FWC. For example:

- For routine check up
- Cases of mild bleeding → give ergometrine
- Fever during pregnancy or within 42 days of delivery → give antibiotic
- Showing signs of pre-eclamptic toxæmia, such as oedema, headache, etc. → prevent/control fits and refer to THC when necessary for better management.

The THC is usually equipped to provide basic EOC services. A woman can come to the THC with or without complications. If a pregnant woman comes for routine antenatal check-up or normal delivery, she is given the appropriate service. If a woman comes with obstetric complications which can not be managed at the H&FWC/SC, she is referred to the Thana Health Complex (THC). There she is managed accordingly. For example:

- Profuse per vaginal bleeding during pregnancy, delivery or within 42 days of pregnancy → blood transfusion
- Pre-eclampsia or eclampsia → prevent/control fits or convulsions, make arrangements for appropriate delivery or refer to a higher level for Caesarean section
- Cases of retention of placenta even after 30 minutes of delivery → manual removal of placenta
- Prolonged labour → perform assisted vaginal delivery or refer to a higher level → for Caesarean section

If it is not possible to manage the complication(s) at this level, the woman is referred to the next level, i.e. the district hospital or medical college hospital, where comprehensive EOC is available.

Previous experiences suggest that although there is a system of linkage and referral in the government health infrastructure, like availability of basic EOC at the THC, but it is not found to be adequate. It has been observed that:

- Despite the crossing of all barriers, if a pregnant woman reaches the THC, inadequacy of services in terms of both personnel and equipment at the THC fails to provide services required to manage the case and causes further referral.
- The long distance to the district hospitals discourages the families from seeking care because of difficulties in arranging and paying for transport.

- The two ambulances provided at the THC do not have adequate number of drivers. Also the charge for hiring the ambulance is too high for the poor in the community to take the referred patients to district hospitals.

Thus, even when a woman with complications is referred from community to a higher service delivery tier, she usually could not avail of the EOC services.

Though components of EOC dictate that First-Aid EOC is to be provided at the H&FWC/SC, but an assessment of the situation indicates that facilities are not feasible for providing First-Aid EOC due to:

- Inadequate drugs and equipment
- Inadequate / number of personnel/timely availability of appropriate personnel
- Inadequate skill of the provider
- Inadequate/ absence of essential utilities, such as water, sanitation, etc.

Keeping the above concerns in mind, the delays involved in attaining EOC services are to be addressed as follows:

- The first delay of, "delayed decision-making" is addressed by:
  - Introducing a Pictorial Card for raising community awareness, described in Section I.
  - Timely identification of a pregnant woman by the FWA/field worker and referral of the pregnant woman to the H&FWC/SC are ensured by maintaining a record-keeping tool, the Pregnant Women Register described in Section II. This is used by both the FWA/field worker at the community level and FWV/ Paramedic at the union level. This register also helps develop a linkage between the two service delivery tiers.
  - To monitor the referral activity, several reporting formats are used. Reporting is being done from the union level by the field workers/paramedics to the thana-level managers. This reporting system develops a linkage between the union and thana levels.
- To address the second delay of, "timely reaching the referred centre", a message is developed to be delivered by the field worker and paramedic both at the community and union level to the pregnant women and their family members when the Pictorial Card is given.

The message is:

**"Save some money from your daily expenditure for transport and drugs that may be required during an obstetric emergency."**

- Analyzing the situation and also taking community requirements into account, a few steps were taken to upgrade the THC facilities to deliver comprehensive EOC rather than only basic EOC services. These steps are suggested to be replicated since they showed good results.

These are:

- Regular and adequate supply of drugs and equipment
- Posting of trained Anaesthesiologists and Obstetricians at the THC
- Training should be provided to all personnel regarding EOC services
- Also, the activities of FWAs/field workers, FWVs/Paramedics, and physicians should be monitored and supervised by their corresponding supervisors, using the checklists.

# **Chapter - 3**

## **Process of Implementation**

This chapter describes the step-by-step activities to be carried out by the programme managers to implement the strategies involving the managers and workers of different service-delivery tiers to strengthen the referral and linkage for EOC.

The programme manager or the senior-level management staff member will identify the needs of the community and the service facilities at the different levels for a well defined system of referral and linkage for EOC. They will then, share this information with the concerned officials of both GoB and NGOs i.e, Director Generals of the Directorates of Health and Family Planning. This follows a series of workshops and preparatory meetings, participated by the GoB officials at the district level. The GoB officials include the respective Deputy Director, Family Planning (DD-FP), Assistant Director, Clinical Contraceptive (AD-CC), Civil Surgeon (CS), and District Commissioner (DC), and also the mid-level managers of NGOs. The process of referral and linkage is conceptualised as a joint effort of the senior-level managers of both GoB and NGOs.

### **Orientation Sessions Prior to the Workshop**

Prior to the training workshop on referral and linkage organised for the field workers at the union and community levels of both GoB and NGOs, the concept is to be shared through a series of sensitisation workshops and preparatory meetings to be participated by district/division/mid-level managers of the GoB and NGO officials. Through this initiative, the process of referral and linkage is conceptualised. At these workshops, a number of sessions to share the concept of using the Pictorial Card and the Pregnant Women Register and activities to be undertaken for referral and linkage for EOC should be held involving the local-level managers of the GoB and NGOs, i.e. TH&FPO, Senior FWV, MO-MCH and RMO, at the thana level. This acts as the training of trainers (TOT) session for training workshop. The mid-level managers should, then, discuss the workshop outcome with the local-level staff.

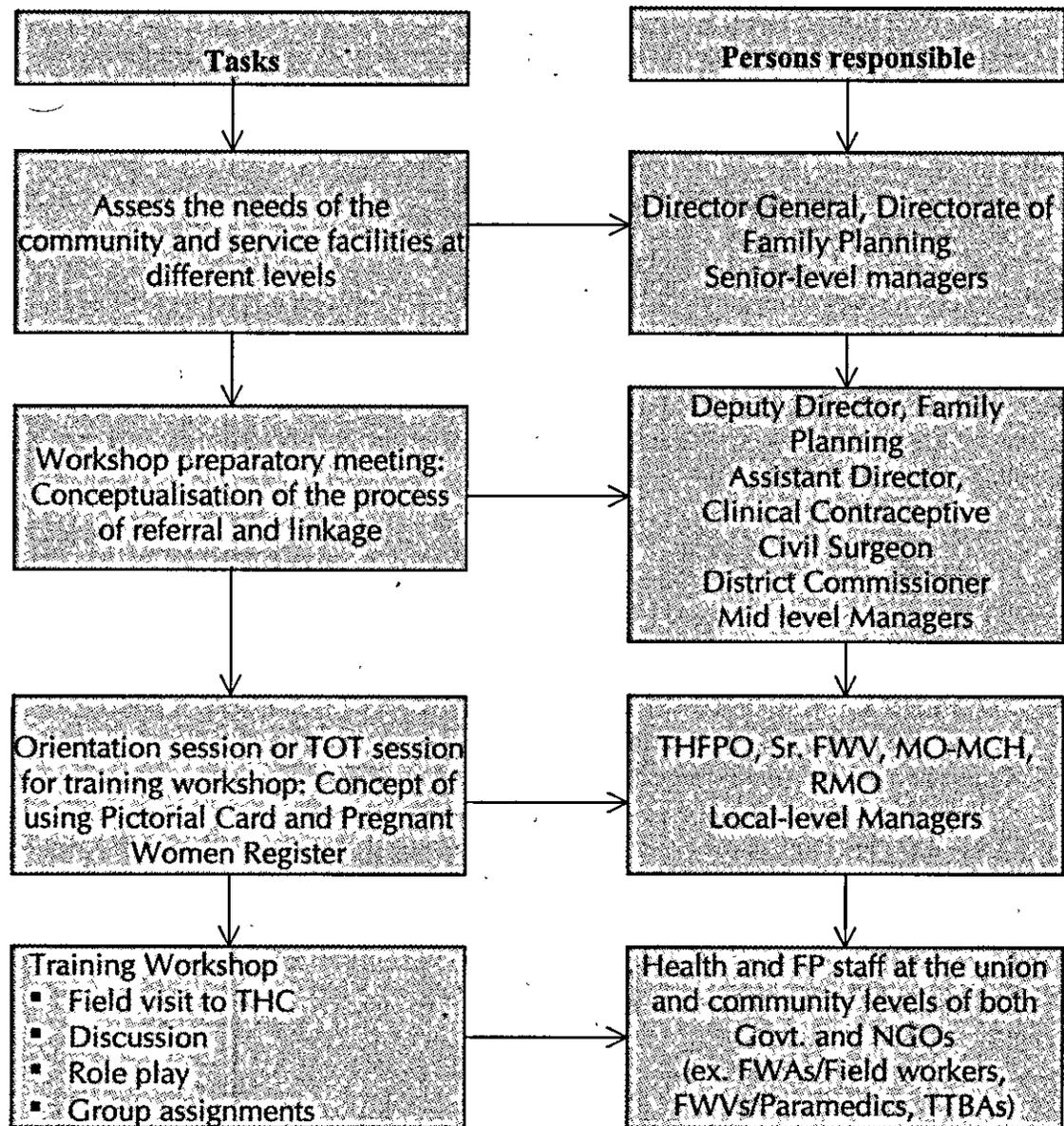


Fig. 6. Flow chart of the tasks and persons responsible for implementation process of referral and linkage

## **Training Workshop**

A two-day training workshop for the FWVs/Paramedics and FWAs/field workers is organised where the mid-level managers are facilitators. Responsibilities of the GoB and NGO personnel at the community and union levels regarding the referral and linkage for EOC are to be discussed in this workshop. The TTBA of each union participate in this training workshop for an orientation on the Pictorial Card. Distribution and explanation of the card by the TTBA to the pregnant women and her relatives play an important role in the system of referral and linkage for EOC. A visit to the THC maternity is to be arranged for the FWAs, TTBA, and FWVs to show them the facilities available there. Participatory training methods are used, comprising discussions, role play, and group assignments.

Overhead projector and video films (on ANC, delivery care, PNC, and neonatal care) are to be used to make the sessions more interesting.

The lesson plan to be used for the training workshop is presented later. It gives a detailed outline of the objective of each session, contents of each topic to be discussed, methods and materials to be used and also the time required for each session.

The materials to be used during the workshop include posters paper, antenatal card, pictorial card, and various reporting formats, etc.

The immediate outcome of the workshop is to be evaluated by pre- and post-tests. Two separate sets of questionnaires – one for field level workers, and the other for the paramedics, are to be used for this purpose. These are attached later.

Handouts regarding referral and linkage for EOC should be distributed to all participants. These are attached later in this chapter. These handouts include information on the symptoms of obstetric complications which must be referred.

## **Responsibilities Regarding Maternal Health and EOC**

A detailed discussion on the responsibilities of each cadre of worker involved with EOC activities at the community and union levels is presented here. This will help the programme managers to define the role of their staff members in providing referral and linkage activities for EOC services. These tasks regarding EOC are to be informed to the corresponding providers during the training workshop.

## Community Level

### Tasks of the FWA

After the identification of a pregnant woman, the FWA will greet the client, and will perform the following functions:

- a. Record the woman's name, address and other relevant information in the Pregnant Women Register.
- b. Ask about the date of the last menstrual period (LMP), calculate the expected date of delivery (EDD), and record these dates in the Register.
- c. Advise the pregnant woman to go to the FWV either at the H&FWC or the SC for at least three antenatal check-ups, and follow them up during subsequent visits.
- d. Inform the client about the day (date) and the time of the nearest SC.
- e. Give her the Pictorial Card bearing an ID number and explain the symptoms of complications during pregnancy, delivery, and puerperium as depicted in the card, and advise her to go to the FWV or to the nearest hospital, if any complications occur.
- f. Ask the pregnant woman to take the Pictorial Card with her when visiting the FWV, MA, or the THC.
- g. Inform the pregnant woman about the trained TBA in her area, and also advise the pregnant woman to call the trained TBA at the time of delivery.
- h. Inform and educate the pregnant women about safe delivery, i.e. use of sterile blade, thread, clean clothes, etc.
- i. Advise the pregnant woman about postnatal care, breast-feeding and postpartum family planning (at visit during third trimester). The pregnant woman is told to take the newborn to the THC, if he/she is reluctant to feed, is lethargic, has fever or impetigo, or has an umbilical infection.
- j. Update the FWV's Pregnant Women Register at the H&FWC regarding new pregnancies and the outcome of the pregnancies listed in the FWA's register. This should be done during the regular monthly meetings.
- k. The FWAs will also contact the trained TBAs of the respective areas during their routine visits, and inform them about the pregnant women in the locality. They will also request the trained TBAs to maintain contact with the mothers.

## **Role of TTBA**

When the pregnant women are identified, the TTBA's play the following roles in the delivery of EOC services:

- a. Explain the Pictorial Card, showing the pictures and inform consequences of delayed seeking of EOC services to the pregnant women and their family members.
- b. Motivate the pregnant women to visit the H&FWC for regular antenatal check ups.
- c. Ask the women to call her to assist during delivery and refer the women to THC/hospital if any complication(s) arise.
- d. Advise for postnatal check up.

## **Union Level**

### **Tasks of the FWV/Paramedic**

The FWV / Paramedic will greet the pregnant woman, and do the following while providing services:

- a. Check whether the pregnant women coming to the H&FWC have the antenatal and Pictorial Cards.
- b. Give and explain Pictorial Cards to those women who do not have a card or visit the H&FWC prior to the FWA's visit to her home or forget to bring the card to the H&FWC.
- c. Provide routine antenatal care at the H&FWC/SC following the steps mentioned below:
  - take previous pregnancy history
  - perform physical examination
  - identify high-risk pregnancy (HRP) and refer them to THC
  - provide advice for TT immunisation
  - provide health education
- d. Explain each picture of the card depicting the symptoms/signs of complication(s) related to pregnancy and childbirth to pregnant women and, if possible, also to their family members.

- e. Record the date of antenatal care provided, who referred for antenatal care, information on high-risk pregnancy identification and possession of Pictorial Card in the Pregnant Women Register kept at the H&FWC.
- f. Treat and refer the pregnant women immediately to a higher level.
- g. Inform the pregnant women about the TTBA of that area, and motivate for taking her assistance during delivery. If the TTBA is present at the H&FWC/SC, introduce her to the pregnant women.
- h. Advise pregnant women to visit her again at H&FWC/SC and provide information about the date and time of the nearby SC.
- i. Advise the pregnant women to take the antenatal card along with them when it is necessary to go to other hospitals.
- j. Discuss the status of the enlisted pregnant women in the Pregnant Women Register, and update the list at the fortnightly and monthly report preparation meetings with the FWAs.
- k. Enter date of the visit of pregnant woman at the H&FWC, and record whether she is high-risk or not.
- l. Take the register to the SC every time.
- m. Prepare the high-risk pregnant women list monthly, and send it to the Senior FWV and the MO-MCH.

#### **Tasks of the FPI/supervisor**

- a. Ensure the enlisting of pregnant mothers and the delivery of the Pictorial card by the FWA through regular field visits.
- b. Ensure that the Pregnant Women Register and Pictorial Card are filled up properly through checking the register. Ensure that the register kept at the H&FWC is regularly updated by the FWA.
- c. While supervising the FWA, check to see whether all pregnant women have received antenatal care and have been introduced to the TTBA of that area. To go to the spot check when required.
- d. Ensure that the Pictorial Card has been properly explained to the pregnant women, and discuss it with the elder family members when possible.
- e. Ensure motivation of pregnant women by the FWA to go the H&FWC for the postnatal care.
- f. Ensure that the antenatal and delivery reports are prepared monthly by the FWA from the Pregnant Women Register and are given to the FWV.

## Lesson for the Training Workshop

### Referral and Linkage for Emergency Obstetric Care (EOC)

Participants: Union-Level Staff  
Lesson Plan

#### 1st Day

**Participants (1-6 sessions):** Family Welfare Assistant (FWAs), Family Planning Inspector (FPI), Family Welfare Visitor (FWV), Health Inspector (HI), Assistant Health Inspector (AHI) and Health Assistant (HA).

#### Session # 1

**Topic:** Introduction about the objective of the intervention

**Objective:** To inform about the necessity of

- emergency obstetric care (EOC)
- linkage and referral for ANC/PNC/EOC
- how these could be done

**Time:** 30 minutes

**Contents:**

- introduction of Pictorial Card
- pregnant women list
- reporting formats

**Method:** Lecture and discussion

**Materials:** Lecture note

#### Session # 2

**Topic:** Defining Last Menstrual Period (LMP) and Expected Date of Delivery (EDD).

**Objective:** Will able to describe the process of calculating LMP and EDD

**Time:** 15 minutes

- Contents: - how to identify pregnancy  
- how to calculate EDD
- Method: Brainstorming and discussion
- Material: Brown paper, marker and EDD calculation chart

**Session # 3**

- Topic: Antenatal and postnatal care
- Objective: - will be able to mention the importance of ANC and PNC  
- will be able to mention the advice to be given to pregnant and lactating women  
- will be able to mention the complications related to pregnancy and childbirth
- Time: 45 minutes
- Contents: - importance of antenatal care  
- advice to be given during pregnancy  
- defining postnatal period  
- usefulness of postnatal care  
- probable complications
- Method: Brainstorming and discussion,
- Material: Brown paper, marker, and poster

**Session # 4**

- Topic: Antenatal and Pictorial Card
- Objective: To introduce home-based Antenatal and Pictorial Cards
- Time: One hour
- Contents: - components of antenatal care  
- elements of high-risk pregnancy  
- necessity of Pictorial Card  
- explaining Pictorial Card  
- to whom and when to give Antenatal Card  
- supply of Antenatal and Pictorial Cards

Method: Brainstorming, discussion, and demonstration

Material: Antenatal and Pictorial Cards, overhead projector, handout on messages on complications to be given to the pregnant women

### Session # 5

Topic: Responsibilities of FWAs, FPI, FWV, HI, AHI, HA and TTBA in ANC, PNC and EOC

Objective: To inform about tasks of ANC and EOC

Time: One hour

Contents: - currently performed tasks after identification of pregnancy  
- some changes in the tasks

Method: Brainstorming, discussion and demonstration

Material: Brown paper, marker pen, overhead projector, hand-out of tasks.

### Session # 6

Topic: Record-keeping

Objective: - to keep pregnancy related record systematically  
- to strengthen contact between FWAs and FWVs, as well as at the THC/thana level

Time: One hour

Contents: - introduction of pregnant women list  
- high-risk pregnancy list  
- reporting format of pregnancy and childbirth  
- how to fill up all the formats

Method: Brainstorming, demonstration, and discussion

Materials: Brown paper, marker, reporting formats (4), filled in list, story, and over head projector

**2nd day:**

**Participants:** FWAs, FPI, FWV, MA, TTBA.

**Session # 1**

**Topic:** Introduction and review session

**Objective:** Review previous day's lessons

**Time:** One hour and 15 minutes

**Content:** Necessity of ANC, PNC, and EOC

**Method:** Question- answer session, discussion, and audio-visual

**Material:** Video cassette, TV, and VCP

**Session # 2**

**Topic:** Explanation on signs of complications  
(Pictorial card)

**Objective:** To inform when and where to refer and for what complications

**Time:** 30 minutes

**Contents:**

- each complication mentioned on the card
- why these are known as signs of danger
- motivate pregnant women and her relatives to use services on time  
(communication components and communicators role will be highlighted)

**Method:** Brainstorming, and discussion

**Materials:** Brown paper, marker, overhead projector, and Pictorial Card

### Session # 3

- Topic:** Referral and linkage at all levels
- Objective:** To inform about the existing facilities for proper utilisation of services at different levels
- Time:** One hour
- Contents:**
- services offered at different levels
  - how they are linked with each other
  - necessity of linkage
  - advise on saving money for any emergency related to pregnancy
- Method:** Brainstorming, discussion, and role play
- Materials:** White board, marker, overhead projector, referral and linkage poster, and story

### Session # 4

- Topic:** Visit to the maternity in the THC and introduction with the THC doctor and nurses. Introduction and discussion of all types of facilities available at the maternity unit
- Time:** 45 minutes (in Two batches)
- Method:** Explaining and feedback session

### Session # 5

- Topic:** Advice on maternal nutrition, safe delivery and breast-feeding
- Objective:** Health education to pregnant and lactating mother
- Time:** One hour
- Content:**
- a) nutrition
    - food intake
    - amount need to be taken
  - b) safe delivery
    - informing about TTBA
    - three cleanliness, i.e. hand washing, place of delivery, and cutting and stamping umbilicus

- c) breast-feeding
  - benefits of breast-feeding
  - what is colostrum and when to start
  - exclusive breast-feeding - how and for how long
  
- d) basic neonatal care
  - immediate neonatal care
  - keeping the newborn warm
  - resuscitation
  - care of the umbilicus
  - eye care
  - any abnormalities
  - general care of the newborn

Method: Small group discussion and presentation and discussion

Material: Brown paper, marker, video on nutrition or breast-feeding, TV, and VCP

**Session # 6**

Topic: Evaluation of training

Time: 30 minutes

- Contents:
- review main points of the two days training.
  - trainees evaluation
  - training evaluation
  - concluding session

**Checklist of the Training Materials**

1. Training schedule
2. Pre- and post-test questionnaire
3. Antenatal and Pictorial Cards
4. Hand-out of tasks of FWAs, FPI, FWVs & MAs and health workers
5. Pregnant Women Register
6. Reporting formats for FWV and FPI
7. Poster of referral and linkage
8. Video cassette
9. Other materials
10. Supervisory checklists for FPIs and Senior FWV

## Pre- and Post-test Questionnaire

### Referral and Linkage for Emergency Obstetric Care (EOC)

#### Questionnaire for FWVs and MAs

সময়ঃ ৩০ মিনিট

- ১। গর্ভকালীন যত্নের প্রধান ধাপসমূহ কি কি?
- ২। ঝুঁকিপূর্ণ গর্ভ বলতে কি বুঝায়?
- ৩। বাড়ীতে নিরাপদ প্রসবের প্রস্তুতির জন্য মাকে কি কি বিষয়ে পরামর্শ দেয়া প্রয়োজন?
- ৪। একজন মহিলার নিম্নলিখিত যেকোন একটি সমস্যা দেখা দিলে আপনি কি ব্যবস্থা দেবেন ?
  - (ক) গর্ভাবস্থায় রক্তস্রাব (বেশী ও কম) দেখা দিলে
  - (খ) অতিরিক্ত মাথা ব্যথা ও বমি
  - (গ) সময়ের আগে পানি ভাঙ্গা
  - (ঘ) তিনদিনের বেশী জ্বর থাকা
  - (ঙ) প্রসবের পর দুর্গন্ধযুক্ত স্রাব
  - (চ) গর্ভফুল পড়তে বিলম্ব হলে
  - (ছ) প্রসবের সময় যদি শিশুর হাত, পা বা নাড়ী আগে আসে বা নাড়ী গলায় পেচানো থাকে
  - (জ) নবজাত শিশু শ্বাস না নিলে বা নীল হয়ে গেলে
- ৫। (ক) প্রসবোত্তর মায়ের যত্ন নিতে গিয়ে যেসকল বিষয় দেখতে ও করতে হবে তার ৫টি কাজের উল্লেখ করুন।  
(খ) নবজাত শিশুর (জন্মের ৪২ দিনের মধ্যে) যত্ন নিতে গিয়ে যে সকল বিষয় দেখতে ও করতে হবে তার ৫টি কাজের উল্লেখ করুন।
- ৬। শিশুকে বুকের দুধ খাওয়ালে মা ও শিশুর উপকারিতা সমূহের প্রধান ৫টি উল্লেখ করুন।

## Referral and Linkage for Emergency Obstetric Care (EOC)

### Questionnaire for FWAs and FPIs

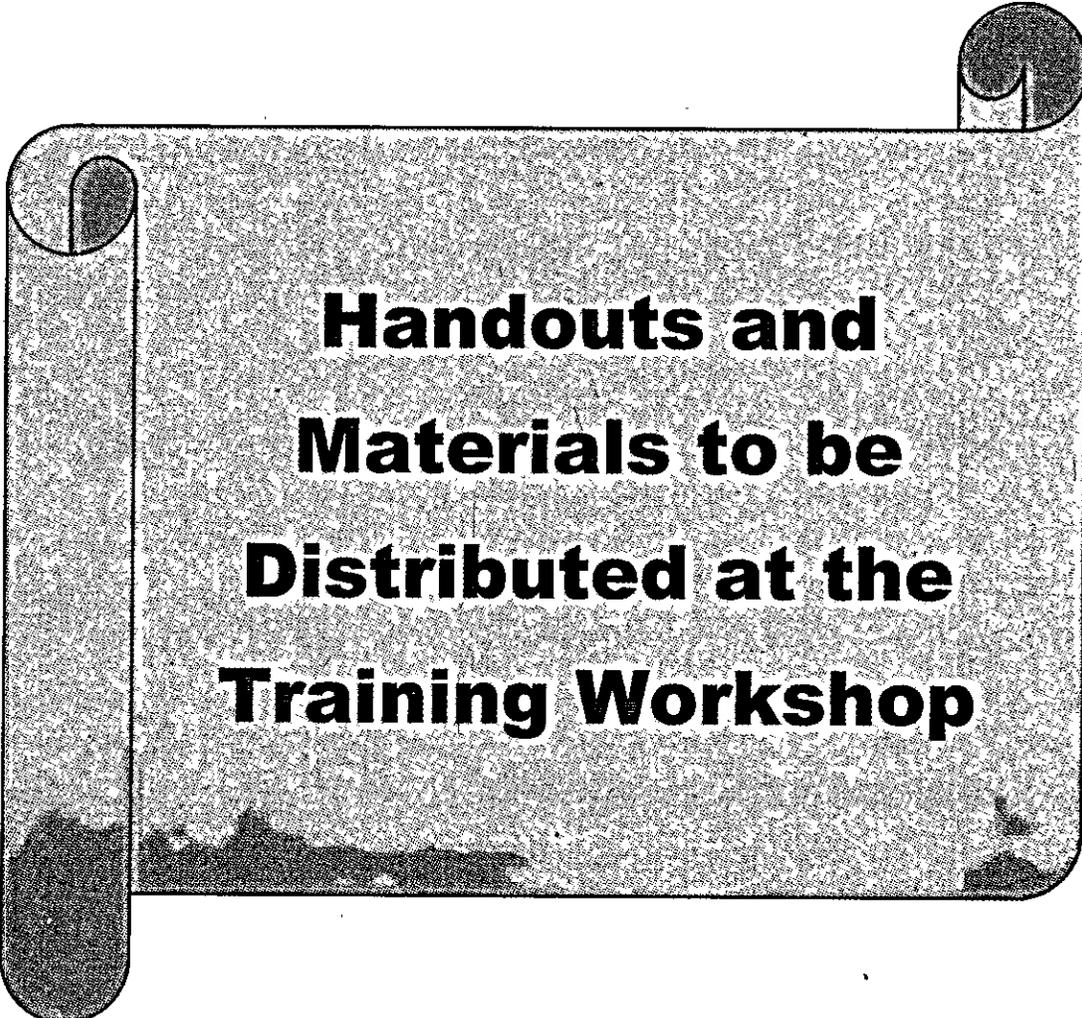
সময়ঃ ৩০ মিনিট

- ১। একজন মহিলার স্বাভাবিক মাসিকের তারিখ ৩রা ডিসেম্বর, ১৯৯৫। তার বাচ্চা প্রসবের সম্ভাব্য তারিখ কি হবে?
- ২। গর্ভকালীন জটিলতা সমূহের প্রধান ৫টি লক্ষন উল্লেখ করুন যে কারণে মাকে সাথে-সাথে হাসপাতালে যেতে হবে।
- ৩। প্রসবকালীন ৩টি প্রধান জটিলতার লক্ষন উল্লেখ করুন যে কারণে মাকে সাথে সাথে হাসপাতালে যেতে হবে।
- ৪। প্রসবোত্তর কালে (গর্ভ খালাসের ৪২ দিনের মধ্যে) মায়ের ৩টি প্রধান জটিলতার লক্ষন উল্লেখ করুন যে কারণে মাকে সাথে-সাথে হাসপাতালে যেতে হবে।
- ৫। (ক) প্রসবোত্তর মাকে প্রথম পরিদর্শনের সময় প্রধান ৩টি জটিলতা-সংক্রান্ত প্রশ্ন কি হওয়া প্রয়োজন?  
(খ) প্রসবোত্তর কালে নবজাত শিশুর যত্ন সম্পর্কে প্রধান ৩টি কাজের উল্লেখ করুন।
- ৬। গর্ভবতী মাকে বাড়ীতে নিরাপদ প্রসবের জন্য কি কি পরামর্শ দিতে হবে?
- ৭। শুধুমাত্র সঠিক উত্তরটিতে টিক চিহ্ন (✓) দিন।  
ক) একজন গর্ভবতী মায়ের গর্ভকালীন সময় কমপক্ষে কতবার FWV/MA/Doctor -এর নিকট থেকে সেবা গ্রহণ করা প্রয়োজন?  
১। ১ বার  
২। ২ বার  
৩। ৩ বার  
৪। ৪ বার  
৫। ৪ বারের বেশী

- খ) শিশু জন্মের পর শাল দুধ কখন দিতে হবে?
- ১। জন্মের সাথে-সাথে
  - ২। জন্মের ৬ ঘন্টা পর
  - ৩। জন্মের ১২ ঘন্টা পর
  - ৪। জন্মের ১ দিন পর
  - ৫। জন্মের ২ দিন পর
- গ) শিশুর নাভি কাটা ও বাধার পর কিভাবে রাখতে পরামর্শ দেবেন?
- ১। সেভলন
  - ২। পাউডার
  - ৩। চুলার ছাই
  - ৪। কিছুই না
  - ৫। নীল রং-এর ঔষধ
- ঘ) বাচ্চা হওয়ার কত মাসের মধ্যে প্রসবোত্তর সেবা গ্রহণ করতে হয়?
- ১। ১ মাস
  - ২। দেড় মাস
  - ৩। ২ মাস
  - ৪। আড়াই মাস
  - ৫। কোন সমস্যা দেখা দিলে
- ঙ) আপনার এলাকায় একজন গর্ভবতী মা বাচ্চা পেটে থাকা কালীন সময় কত বার FWV/MA/Doctor -এর নিকট থেকে সেবা পেয়েছেন এবং কতজন কোন সেবা পাননি তা কি ভাবে জানবেন?
- ১। MIS ১ নং ফরম থেকে
  - ২। MIS ২ নং ফরম থেকে
  - ৩। MIS ৩ নং ফরম থেকে
  - ৪। FWA রেজিস্টার থেকে
  - ৫। গর্ভবতী মায়ের রেজিস্টার থেকে

## References

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3. Obstetrical and Gynaecological Society of Bangladesh and United Nations Children's Fund. Emergency Obstetric Care (EOC): Interventions for the Reduction of Maternal Mortality, 1993.
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5. Maine D. Reduction of Maternal Mortality in Bangladesh during 1995 -2000: A Concept Paper. United Nations Children's Fund, 1993.



**Handouts and  
Materials to be  
Distributed at the  
Training Workshop**

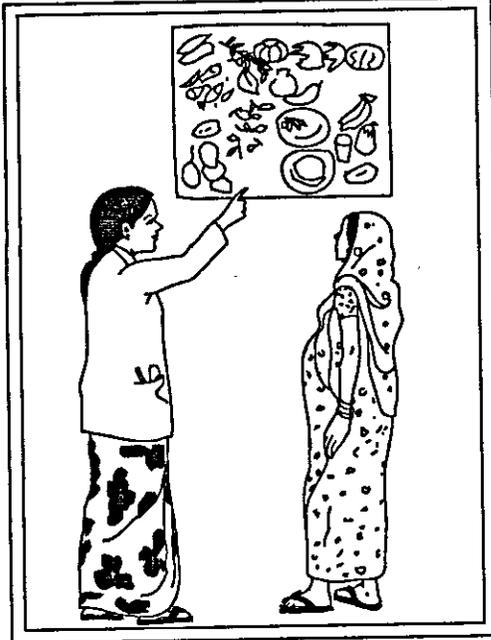
# গর্ভবতী মায়ের যত্ন



গর্ভবতী মহিলার ওজন ঠিক আছে কিনা স্বাস্থ্যকেন্দ্রে তা পরিক্ষা করে দেখা হয়।



গর্ভবতীর রক্তের চাপ ঠিক আছে কিনা স্বাস্থ্যকেন্দ্রে তা পরিক্ষা করে দেখা হয়।



গর্ভবতী মহিলাকে সবধরনের খাবার বেশী করে খেতে হয় যেমন: ভাত, রুটি, মাছ, ডাল, শাকসব্জি, ফলমূল ইত্যাদি।



গর্ভবতী মহিলাকে গর্ভের চারমাস পর থেকে ১ মাস অন্তর ২টি টি টি ইনজেকশন নিতে হবে, তাহলে নবজাতকের ধনুষ্ংকার রোগে মারা যাওয়ার কোন ভয় থাকে না।

## গর্ভবতী মায়ের প্রসবের সম্ভাব্য তারিখ নির্ণয় (ই.ডি.ডি) করা

### ১। ই.ডি.ডি. হচ্ছে সম্ভাব্য প্রসবের তারিখ

সকলের গর্ভাবস্থা ২৮০ দিন বা ৪০ সপ্তাহ করা হয়। যা যদি নিয়ম মাসিকের তারিখ বলতে পারেন তবে সে তারিখ হতে ৯ মাস গননা করে তার সাথে ৭ দিন যোগ দিলে যে তারিখ বের হবে সে তারিখটি আনুমানিক সম্ভাব্য প্রসবের তারিখ হিসাবে গননা করা।

### ২। ই.ডি.ডি. বের করার নিয়ম

- শেষ স্ট্রু গ্রাফ হওয়ার প্রথম দিনের তারিখ নিতে হবে।
- তার সাথে সাত দিন যোগ দিতে হবে।
- তার সাথে আরো ৯ মাস যোগ দিতে হবে।

### ৩। উদাহরণ

(ক) কাকলের শেষ মাসিকের তারিখ ২৩শে জানুয়ারী ১৯৯২ তার প্রসবের সম্ভাব্য তারিখ বের করতে হবে।

শেষ মাসিকের তারিখ ২৩শে জানুয়ারী ১৯৯২

৯ মাস যোগ দিলে -

২৩ অক্টোবর হবে

একম আরো ৭ দিন যোগ দিতে হবে, তাহলে তার সম্ভাব্য প্রসবের তারিখ হবে ৩০শে অক্টোবর ১৯৯২

(খ) শেষ মাসিকের তারিখ ৭ই মে ১৯৯২

৯ মাস যোগ দিলে হবে ৭ই ফেব্রুয়ারী ১৯৯৩

একম আরো ৭ দিন যোগ দিতে হবে, তাহলে প্রসবের সম্ভাব্য প্রসবের তারিখ হবে ১৪ই ফেব্রুয়ারী ১৯৯৩

## নিরাপদ প্রসবের জন্য প্রস্তুতি

স্বাস্থ্যে প্রসবের প্রস্তুতির জন্য যে সব বিষয়ে পরামর্শ দিতে হবে:

- ১। প্রসবের জন্য পরিষ্কার স্থান ঠিক করা।
- ২। নতুন গ্রেড ও জুতা স্নেহ করে ব্যবহার করার ব্যবস্থা করা।
- ৩। প্রসবে সহায়তকারীর হাত সাবান দিয়ে পরিষ্কারভাবে ধোয়া।
- ৪। গর্ভবতী হবার সাথে-সাথেই সেই এলাকার প্রশিক্ষণপ্রাপ্ত নারীদের সাথে যোগাযোগ করা।
- ৫। মা ও নবজাত শিশুর জন্য স্নেহ করা বোত্রে চকানো পরিষ্কার কাপড়ের ব্যবস্থা করা।
- ৬। গর্ভবতী হবার পোস্টের জন্য সাবান ও স্যানিটর ব্যবস্থা করা।

## গর্ভকালীন অটিলতার লক্ষণ

গর্ভকালীন অবস্থায় যে কোন সময় যদি:

- হঠাৎ ব্যথা
- বিচুর্নিত হয় বা অজ্ঞান হয়ে যায়
- হাঁক, শ্বাস ও হৃদযে পানি নামে
- চোখে জ্বালাপলা লেগে
- বেশী মাথা ব্যথা হয়
- সমস্তের আসে যদি পানি যায়
- ছুঁই তিমসিলের বেশী হয়

আমলে সাথে সাথে নিকটস্থ হাসপাতালে বা ড্রিনিংকে যোগে যাবেন।

## প্রসবকালীন জটিলতার লক্ষণ

প্রসবকালীন অবস্থার যদি:

১. প্রথম দ্বারা ১ মিনিট/১ ঘণ্টার (১২ মিনিট) বেশি হয়

২. প্রসবকালীন সময় অতিরিক্ত হতে পারে

৩. কিছুটা ২৪ বা অধিক ঘণ্টা হয়

৪. প্রসবের সময় শিশুর অপর্যাপ্ত অক্সিজেন হয় যেমন শিশুর হাঁচা, শ্বাসকোষ্ঠ হওয়া  
পাছ আসে আসে অথবা বমি আদি অস্বাভাবিক

৫. বহুদূর পড়তে দেখা হয়ে (অন্য মত্রে বা বেশী)

৬. হার হতে

৭. অত্যন্ত দ্রুত ১২ ঘণ্টা বা ১২ মিনিটের ভিতরে বেতে পারে।

## প্রসবোত্তর মায়ের জটিলতার লক্ষণ

বাচ্চা হওয়ার পেরু মাসের মধ্যে যদি মায়ের:

- ১। ক্রিমদিসের বেশী সময় জ্বর হয়
- ২। অতিরিক্ত রক্তপাত হয়
- ৩। কলপেটে অসহ্য ব্যথা হয়
- ৪। দুর্গন্ধযুক্ত বা দুর্ভেদ্য মিশ্রিত স্রাব বের হয়

তা হলে সাথে-সাথে হাসপাতালে বা নিকটস্থ ক্লিনিকে যেতে বসুন।

## নবজাত শিশুর জটিলতার লক্ষণ

বাচ্চা হওয়ার এক মাসের মধ্যে যদি শিশুটির:

শরীর ঠান্ডা হয়ে যায়

যদি জ্বালাবে অসুস্থিবা/কঠি হয়

বিশুণী হয়/নিশ্বাস হয়ে যায়

কুকের মূত্র ভালভাবে টেনে থেকে পারে না

অতিরিক্ত চারমিক লাগে হয়ে যায় বা মাটি থেকে পুঁজ বা দুর্গন্ধ বের হয়

জন্মের পর থেকেই বা প্রথম দিনেই চামড়া হলুদ হয়

যদি জ্বর হয়

চামড়ায় যদি কোন প্রকার ফুলকুড়ি বা ঘা হয়

তা হলে সাথে সাথে হাসপাতালে বা ডিভিজে নিয়ে যেতে হবে।

## প্রসব পরবর্তী জটিলতা সমূহ

প্রসবোত্তর মাকে পরিদর্শনের সময় জিজ্ঞাসা করুন

মায়ের জন্যঃ

- ১) ভিনদিনের বেশী সময় ধরে জ্বর হয়েছে কি না?
- ২) দুর্গন্ধযুক্ত প্রাণ আছে কি না?
- ৩) মূত্রে কোন অসুবিধা আছে কি না?
- ৪) অতিরিক্ত হতাশাত হচ্ছে কি না?
- ৫) কলমপেটে প্রচণ্ড ব্যাথা আছে কি না?
- ৬) প্রসব কালীন সময় টিচার বা প্রলাপন হয়েছে কি না?

শিশুর জন্যঃ

- ১) শরীর ঠাণ্ডা হয়ে যায় কিনা?
- ২) শ্বাস প্রশ্বাসে অসুবিধা/কষ্ট হয় কিনা?
- ৩) বিড়নী হয়/নিষ্ক্রেত হয়ে যায় কিনা?
- ৪) বুকের দুধ ভালভাবে টেনে খেতে পারে কিনা?
- ৫) মজির চারদিক লাল হয়ে যায় বা শক্তি থেকে পুঁজ বা দুর্গন্ধ বের হয় কিনা?
- ৬) মূত্রে পুর থেকেই বা প্রথম দিনেই চামড়া হলুদ হয় কিনা?
- ৭) জ্বর হয় কিনা?
- ৮) চামড়ায় যদি কোন প্রকার ফুসকুড়ি বা ঘা হয় কিনা?
- ৯) শিশুর উন্নয়ন পর্যবেক্ষণ সম্পর্কে খবর নেয়া।

## MCH-FP Extension Work at the Centre

An important lesson learned from the Matlab MCH-FP project is that a high CPR is attainable in a poor socioeconomic setting. In 1982, the MCH-FP Extension Project (Rural) with funding from USAID began to examine in rural areas how elements of the Matlab programme could be transferred to Bangladesh's national family planning programme. In its first year, the Extension Project set out to replicate workplans, and record-keeping and supervision systems, within the resource constraints of the government programme.

During 1986-89, the Centre helped the national programme to plan and implement recruitment and training, and ensure the integrity of the hiring process for an effective expansion of the work force of governmental Family Welfare Assistants. Other successful programme strategies scaled up or in the process of being scaled up to the national programme include doorstep delivery of injectable contraceptives, management action to improve quality of care, management information systems, and strategies to deal with problems encountered in collaborative work with local area family planning officials. In 1994, this project started family planning initiatives in Chittagong, the lowest performing division in the country.

The Centre and USAID, in consultation with the government through the Project's National Steering Committees, concluded an agreement for new rural and urban Extension Projects for the period 1993-97. Salient features include: improving management, quality of care and sustainability of the MCH-FP programmes, and providing technical assistance to GoB and NGO partners. In 1994, the Centre began an MCH-FP Extension Project (Urban) in Dhaka (based on its decade long experience in urban health) to provide a coordinated, cost-effective and replicable system of delivering MCH-FP services for Dhaka urban population. This important event marked an expansion of the Centre's capacity to test interventions in both urban and rural settings. The urban and rural extension projects have both generated a wealth of research data and published papers in international scientific journals.

In August 1997 the Centre established the Operations Research Project (ORP) by merging the two former MCH-FP Extension Projects. The ORP research agenda is focussed on increasing the availability and use of the high impact services included in the national Essential Services Package (ESP). In this context, ORP has begun to work with partners in government and NGOs on interventions seeking to increase coverage in low performing areas and among underserved groups, improve quality, strengthen support systems, enhance financial sustainability and involve the commercial sector.

ORP has also established appropriate linkages with service delivery partners to ensure that research findings are promptly used to assist policy formulation and improve programme performance.

## The Division

The Health and Population Extension Division (HPED) has the primary mandate to conduct operations research, to disseminate research findings to program managers and policy makers and to provide technical assistance to GoB and NGOs in the process of scaling-up research findings to strengthen the national health and family planning programmes.

The Division has a long history of solid accomplishments in applied research which focuses on the application of simple, effective, appropriate and accessible health and family planning technologies to improve the health and well-being of underserved and population-in-need. There are various projects in the Division which specialize in operations research in health, family planning, environmental health and epidemic control measures. These cut across several Divisions and disciplines in the Centre. The Operation Research Project (ORP) is the result of merging the former MCH-FP Extension Project (Rural) and MCH-FP Extension Project (Urban). These projects built up a considerable body of research and constituted the established operations research element for child and reproductive health in the Centre. Together with the Environmental Health and Epidemic Control Programmes, the ORP provides the Division with a strong group of diverse expertise and disciplines to significantly consolidate and expand its operations research activities. There are several distinctive characteristics of these endeavors in relation to health services and policy research. For one, the public health research activities of these Projects are focused on improving programme performance which has policy implications at the national level and lessons for the international audience also. Secondly, these Projects incorporate the full cycle of conducting applied programmatic and policy relevant research in actual GoB and NGO service delivery infrastructure, dissemination of research findings to the highest levels of policy makers as well as recipients of the services at the community level; application of research findings to improve program performance through systematic provision of technical assistance; and scaling-up of applicable findings from pilot phase to the national program at Thana, Ward, District and Zonal levels both in the urban and rural settings.



**CENTRE**  
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