

Safe Motherhood programmes are designed to reduce the high numbers of deaths and illnesses resulting from complications of pregnancy and childbirth. In too many countries, maternal mortality is a leading cause of death for women of reproductive age. Most maternal deaths result from haemorrhage, complications of unsafe abortion, pregnancy-induced hypertension, sepsis and obstructed labour. Safe Motherhood programmes seek to address these direct medical causes and undertake related activities to ensure women have access to comprehensive reproductive health services.

Causes of Maternal Mortality Globally

✓ Severe bleeding	25%
✓ Indirect causes	20%
✓ Infection	15%
✓ Unsafe abortions	13%
✓ Eclampsia	12%
✓ Obstructed labour	8%
✓ Other direct causes	8%

WHO: World Health Day–Safe Motherhood–1998

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Safe Motherhood

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Safe Motherhood

In this Field Manual, Safe Motherhood includes antenatal care, delivery care (including skilled assistance for delivery with appropriate referral for women with obstetric complications) and postnatal care, including care of the baby and breastfeeding support. Sexually transmitted disease (STD)/HIV/AIDS prevention and management, family planning services, and other RH concerns should be integrated with Safe Motherhood activities and are discussed in Chapters Five, Six and Seven, respectively.

MISP and Safe Motherhood

Please refer to Chapter Two for the aspects of Safe Motherhood which must be dealt with in the initial phase of a refugee situation.

The activities within the MISP related to Safe Motherhood help prevent excess neonatal and maternal morbidity and mortality by:

- providing clean delivery kits for use by mothers or birth attendants to promote clean home deliveries;
- providing midwife delivery kits (UNICEF or equivalent) to facilitate clean and safe deliveries at the health facility; and by
- initiating the establishment of a referral system to manage obstetric emergencies.

The individual appointed as RH Coordinator should be responsible for all RH services including Safe Motherhood, to ensure optimum integration of all the various aspects of reproductive health.

Safe Motherhood in Stabilised Situations

As soon as feasible, **comprehensive services for antenatal, delivery and postpartum care must be organised**. Planning for such services should take into account existing facilities for the local population. Both refugee and local population needs should be consid-

ered. Services should be able to deal with obstetric and other medical emergencies. For obstetric emergencies, it is preferable to support host-country services rather than establish new and refugee-specific facilities that will not be maintained in the long term.

Approximately 15 per cent of pregnant women will develop complications that require essential obstetric care, and up to five per cent of pregnant women will require some type of surgery. The following ratios have been found to be successful in many situations:

- one health post/clinic with trained community health workers and traditional birth attendants (TBAs) able to identify problems and refer for every 5,000 people;
- one equipped health centre providing basic essential obstetric care for every 30,000-40,000 people;
- one operating theatre and staff, capable of performing 24 hour comprehensive essential obstetric care, for every 150,000 to 200,000 people.

To make sure that the services provided are appropriate and of the highest quality and will be fully used, it is essential to:

- identify skilled care providers involved in childbirth (physicians, midwives, experienced nurses, trained TBAs);
- provide refresher training and close supervision as indicated;
- be aware of and discuss community beliefs and practices and health-seeking behaviour related to delivery, such as position for delivery, presence of relatives for support and traditional practices both positive (breastfeeding) and harmful (female genital mutilation); and
- ensure that all refugee women and their families know where to obtain assistance for antenatal care and delivery and how to recognise signs of complications.

Antenatal care

The primary objective of antenatal care is to **establish contact with the women, and identify and manage current and potential risks and problems**. This creates the opportunity for the woman and her health care provider to establish a **delivery plan** based on her unique needs, resources and circumstances. The delivery plan identifies her intentions about where and with whom she intends to give birth and contingency plans in the event of complications (transport, place of referral, etc.).

At least three antenatal visits are recommended, ideally with the first visit early in the pregnancy. This number may vary based on national policies. Appropriate antenatal care should include:

Assessment of maternal health. This includes not only determining the pregnant woman's overall health status, but also identifying factors which may adversely affect pregnancy outcome. These factors include: age (younger than 17 or older than 40), grand multipara, significantly short stature, and obstetric history of any previous complications, including surgery. While this screening may help identify some women who will develop complications, it will not identify all of them. Thus it is critically important to identify and manage complications as they arise among all pregnant women. The home-based maternal record at the end of the Chapter should be adapted and used to record care provided to women during pregnancy.

Female genital mutilation is a particular risk in some countries (see Chapter Seven). Women who have been subjected to this procedure, especially to infibulation, should be identified during the antenatal period.

Detection and management of complications. Special emphasis should be placed on identifying the acute complications of unsafe abortions or ante-partum haemorrhages. Other complications, such as hypertensive dis-

eases, anaemia, diabetes, malaria or an STD, are less obvious and require more detailed physical examination. Treatment for existing health conditions should be undertaken. Syphilis testing is recommended at least once during pregnancy, preferably before the third trimester. Systematic testing for syphilis in pregnancy is cost-effective if the prevalence of syphilis is one per cent or more in the general population.

Screening for Syphilis in Pregnancy using RPR

Syphilis and other STDs contribute to the transmission of HIV, maternal morbidity and negative pregnancy outcome. In a recent study of 3,591 HIV-negative Malawi women with an active syphilis rate of 3.6 per cent, 21 per cent of perinatal deaths, 26 per cent of stillbirths, 11 per cent of neonatal deaths and 8 per cent of infant deaths were attributable to syphilis.

Testing for syphilis in pregnancy can be undertaken at the antenatal clinic by using the RPR (rapid plasma reagin) test. Staff must be trained, but sophisticated laboratory equipment is not needed for routine RPR testing. Periodically, quality control of RPR testing with laboratory verification using *Treponema Pallidum* Haemagglutination test (TPHA) should be undertaken to ensure accuracy of RPR testing.

RPR testing for syphilis in pregnancy has been successfully undertaken in refugee camps in Tanzania. Prevalence of syphilis in pregnancy using RPR ranged from 7 to 20 per cent.

Observation and recording of clinical data. Height, blood pressure, search for oedemas, proteinuria and haemoglobin (if indicated by clinical signs), uterine growth, fetal heart rate and presentation should be recorded.

Maintenance of maternal nutrition. The recommended minimum nutritional requirements for a pregnant woman have been set at

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2,300 kcal per day of a balanced and culturally acceptable diet. Supplementary food may be required if the basic food ration available or distributed to refugees is inadequate. The offer of supplemental food can be a good incentive to get women to attend for antenatal care. Health care providers should be alert to signs of iron-deficiency anaemia and iodine deficiency disorder (IDD).

Health education. The following topics should be part of the educational activity related to antenatal care:

- choosing the safest place for delivery;
- clean delivery;
- the major symptoms of complications (bleeding, severe abdominal pain, headache);
- where and when to seek care for complications;
- exclusive breastfeeding;
- maternal nutrition;
- STD/HIV/AIDS prevention;
- immunisation; and
- family planning.

Prevention of major diseases. Preventive measures should include: iron folate prophylaxis

(anaemia occurs in about 60 per cent of pregnant women in developing countries); tetanus toxoid immunisation; Vitamin A supplements; antimalarials (according to country policies) and anthelmintics (hookworms) in endemic areas. Iodized oil/salt may be given in areas of moderate or severe IDD and following national protocols.

Delivery Care

This Field Manual does not contain details of how to conduct deliveries. See the Further Reading list for this information.

Even with the best possible antenatal screening, any delivery can become a complicated one requiring emergency intervention. Therefore, **skilled assistance is essential** to delivery care. In the absence of midwives or nurses, TBAs (who usually perform home deliveries, often as a source of income) should be trained to identify complications, provide immediate first aid, and know when and where to refer women for additional care. It should also be remembered that:

- the first priority for a delivery is to be safe, atraumatic and clean; and
- **most maternal deaths are due to a failure to get skilled help in time** for delivery complications.

It is critical to have a well-coordinated system to identify complications and ensure their management with immediate first aid and/or referral. As a rule, the further away the referral facility, the earlier you intervene.

Delays in obtaining help may be at the community level (in identifying and referring women with difficulties); en route to the referral facility (inability to get transport, poor road conditions); or on arrival at the referral facility (absence of staff, lack of drugs or other materials). All three possibilities for delay must be minimised.

Midwives and TBAs should also take care of the newborn by: clearing the airway, keeping the baby warm, providing eye and cord care,

Vitamin A Supplementation in Pregnancy

Where Vitamin A Deficiency is endemic among children and maternal diets are low in Vitamin A, health workers should provide:

- a daily supplement not exceeding 10,000 IU vitamin A during pregnancy or
- a weekly supplement not exceeding 25,000 IU Vitamin A after the first trimester. These supplements will benefit the mother and her developing fetus with little risk of harm to either
- after the mother gives birth, she should receive 200,000 IU vitamin A.

helping mothers begin breastfeeding (and not giving any other foods or liquids to the baby), and identifying complications which require referral. Birth weights should also be measured.

Deliveries outside an equipped health facility. TBAs or family members will often assist deliveries. Therefore, early identification of midwives or TBAs within the community, their training and supervision on the proper use of clean delivery kits (clean place, clean hands, proper cord care) and identification and management of complications (when and where to refer), are essential to prevent excess maternal morbidity and mortality.

Deliveries in equipped health centres. These health facilities, whether temporary or permanent, should be equipped with the appropriate human and material resources to take care of all but surgical cases. Wherever possible, national health facilities should be used and supported. The following basic essential obstetric care should be provided and standard protocols used to monitor and manage labour. These include:

- initial assessment, duration, use of a partograph (see Annex 2);
- assessment of fetal well being;
- episiotomy;
- special care for women who have undergone genital mutilation (see Chapter Seven);
- use of vacuum extractor;
- management of haemorrhage;
- management of eclampsia;
- multiple birth;
- breech delivery; and
- procedures for referral to next level of care, if necessary.

Protocols must be taught to health staff, publicly displayed and made available in all health centres.

Basic essential obstetric care should be performed at the health-centre level to address, or stabilise before referral, the main complica-

tions of delivery, such as ante-partum haemorrhage, eclampsia, prolonged labour, uterine rupture, post-partum haemorrhage, repair of vaginal and cervical tears, and retained placenta.

These facilities should therefore be equipped with broad spectrum injectable and oral antibiotics (ampicillin, penicillin, doxycycline, gentamicin, metronidazole), plasma expanders, anti-convulsants, oxytocics, ergometrine, analgesics, magnesium sulphate, suturing kits, "high" sterilisation techniques, gloves, syringes and needles, delivery equipment, and materials for universal precautions.

These facilities should also be able to provide for resuscitation and basic care of the newborn (e.g., management of hypothermia and hypoglycemia), including measurement of birth weight. A readily available prophylactic to prevent neonatal ophthalmia, ideally tetracycline eye ointment, should be given to all newborns.

Deliveries at referral hospitals. A referral hospital in which surgical procedures can be performed may exist in some major refugee operations. However, very often, severe complications will be managed at the nearest major health facility of the host country. In this case, try to avoid swamping the facility with the demands of the refugee population to the detriment of the local people.

Timely and appropriate **support to the local health facility** must be given as soon as possible. The agreement and support of the Ministry of Health should be secured in order to formalise the integration and coordination of obstetric services between the refugee settlement and the local health facility.

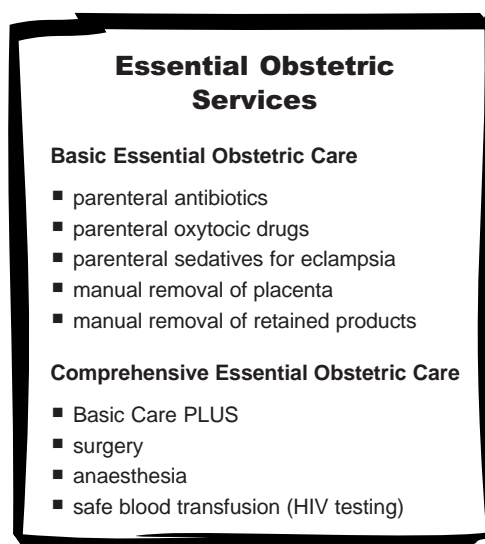
The referral hospital should be able to perform safely comprehensive essential obstetric care, such as Caesarean sections, laparotomy, hysterectomy, repair of cervical and severe (third degree) vaginal tears, care for complications due to unsafe abortion, and safe blood transfusion.

An appropriate referral system requires referral protocols specifying when and where to refer and an adequate record of referred cases. This implies coordination, communication,

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confidence and understanding between the TBAs and their supervisors (usually midwives) and between the health centre and the hospital with surgical facilities. An effective referral system will also have to take into account security, geographical and transport constraints.



Postpartum Care

Since up to 50 per cent of maternal deaths occurs after delivery, a midwife or a trained and supervised TBA should visit all mothers as soon as possible within the first 24-48 hours after birth. The midwife or TBA should assess the mother's general condition and recovery after childbirth and identify any special needs. This attention is particularly important when the woman is alone as head of the family.

The postpartum visit provides an occasion for assessing and discussing issues of cleanliness, care of the newborn, breastfeeding and appropriate methods and timing of family planning (see Chapter Six). Health providers should support early and exclusive breastfeeding, and discuss proper nutrition with the mother. Iron folate tablets should be continued and Vitamin A and iodised oil/salt should be provided when necessary.

During the postpartum visit, the health and well being of the newborn should also be assessed

and its birth weight measured. Newborns should be referred to the under-five clinic to start immunisations, growth monitoring and other well-child services.

Community Health Workers (CHW) and TBAs should be trained for appropriate referral of postpartum complications, such as haemorrhage, sepsis, perineal trauma, breastfeeding problems, and newborn complications, such as prematurity or failure to thrive, that may require additional surveillance and/or treatment.

Integrating Services and IEC

In the stabilisation phase, antenatal and postnatal services should be offered in an appropriate environment, in the same location as family planning, STD services, the "baby clinic" and any other services related to primary health care.

Some situations may benefit from a "women's house" which offers peer support, counselling and health promotion in a non-threatening environment. This resource is especially important for adolescent and new mothers. Such a place might also provide a suitable venue for small-scale income-generating or female literacy activities.

Effective dissemination of information is vital if women are to enjoy access to available services. The community's knowledge and attitudes regarding medical care during pregnancy and childbirth must be assessed. If there is suspicion and fear of medical interventions, such as hospital delivery, Caesarean section or blood transfusion, appropriate IEC activities may be necessary. New procedures, such as screening blood for syphilis, should be preceded by educational activities that explain and dispel misconceptions about the procedures. Health workers should consider inviting a companion who will be present at the time of delivery to attend antenatal clinics with the pregnant woman. Through TBAs and/or CHWs, **the refugee population, as a whole, should be made aware of the warning signs**

of impending complications in pregnancy and labour and encouraged to plan how to reach the equipped medical facility, if necessary. Given that men and older family members often make the decisions within the family, it is particularly important that educational activities target these groups.

Human Resource Requirements

A midwife or an experienced nurse is best suited to organise and supervise the Safe Motherhood programme. A midwife can effectively supervise 10 to 15 TBAs for an estimated population of 20,000-30,000.

In many societies, TBAs are usually the key people at the community level who will influence maternal and newborn care, although their influence and skills may vary from culture to culture. In general, one TBA can look after 2,000 to 3,000 refugees. With a crude birth rate of three per cent per year, this means roughly five to eight deliveries per month per TBA.

With adequate training and supervision, some experienced TBAs can:

- identify complications;
- refer women with delivery complications to appropriate medical facilities;
- provide care for normal pregnancy through labour, delivery and the postpartum period; and
- offer family planning information and services.

TBAs, however, are no substitute for a more skilled attendant at birth.

Bear in mind that **female health care providers are usually preferred to attend births.**

Training and supervision of health workers in Safe Motherhood practices should be evaluated and planned in coordination with the community (both refugee and host), NGOs and UN agencies. The nature of the training will vary depending on the services the health worker provides and the skills required for those services.

Monitoring Service Provision

Services should be continuously reviewed. Efforts should be made to collect reliable information on maternal deaths. **Every maternal death should be investigated** to determine the cause and action taken and to ensure that the referral system is responding appropriately to obstetric emergencies.

Record keeping (adapted to the literacy level of record keepers) is essential for appropriate surveillance. Home-based maternal records (see Annex 1), kept by the mother, have proven advantages.

The following is a list of suggested indicators for monitoring Safe Motherhood interventions in refugee situations. Refer to Chapter Nine for further information.

Safe Motherhood Indicators

✓ Indicators to be collected from the health-facility level

- Crude birth rate
- Neonatal mortality rate
- Stillbirth ratio
- Coverage of antenatal care
- Coverage of syphilis screening
- Coverage of trained delivery services
- Coverage of postpartum care
- Incidence of obstetric complications

✓ Indicators collected at the community level

The knowledge of the community regarding safe motherhood interventions should be assessed periodically.

✓ Indicators concerning training and quality of care

Supervisors should periodically assess the skills of health care providers to ensure quality of care of Safe Motherhood interventions.

Support for Breastfeeding

Breastfeeding is particularly important in emergency situations because of the increased risk of diarrhoea and other infections, and because the warmth and care which breastfeeding provides is crucial to both mothers and children. In these situations, it may be the only sustainable source of food for infants and young children. The well-known risks associated with bottle feeding and breast milk substitutes are dramatically increased due to poor hygiene, crowding and limited water and fuel. Since breastfeeding is also an important traditional activity for women, it can help uprooted women preserve a sense of their self-worth. For information on HIV and breastfeeding, refer to Chapter Five.

Optimal Feeding Practices in Emergencies

- **Initiate breastfeeding within one hour of birth.**
- **Promote colostrum** as a health benefit to newborns, while being sensitive to commonly held beliefs to the contrary.
- **Implement the “Ten steps to successful breastfeeding”** (1989 Joint WHO/UNICEF statement, protecting, promoting and supporting breastfeeding).
- Encourage frequent, **on-demand feeding** (including night feeds).
- **Promote exclusive breastfeeding.** On-demand breastfeeding during the first six months provides 98 per cent contraceptive protection, provided menses has not returned, and no other food is given to the baby.
- **Surrogate feeding/wet nursing** is an alternative for an orphaned child or if the mother is disabled or absent.
- **Supplement breast milk with appropriate weaning foods** starting at six months of age.
- Encourage breastfeeding well into the **second year of life** or beyond.
- **HIV-positive mothers** may need special support and counselling—see Chapter Five.
- **During a child’s illness, breastfeeding frequency should be increased**, as it should after a child’s illness so the child can catch up on its growth.
- **2,500 kcal per person per day of culturally appropriate food** is recommended as a minimum requirement for lactating women. The distribution of supplementary food to lactating women may be necessary when the diet available to the refugee population is inadequate.

Counteracting Common Misconceptions about Breastfeeding in Emergencies

MYTH: *Women under stress cannot breastfeed.*

- ✓ **TRUTH:** **Women under stress CAN successfully breastfeed.** Milk production is stable; but milk release (let down) can be affected by stress. The treatment for poor milk release and for low production is increased suckling and social support. The most effective support for a breastfeeding woman comes from other breastfeeding women.

MYTH: *Malnourished women don’t produce enough milk.*

- ✓ **TRUTH:** **Malnourished women DO produce enough milk.** It is extremely important to distinguish between true cases of insufficient milk production (very rare) and mis-

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taken perceptions. Milk production remains relatively unaffected in quantity and quality except in extremely malnourished women. Malnourished women and children are best served by **feeding the mother** and letting her breastfeed the infant. By doing so, you protect the health of both mother and child. Giving supplements to infants decreases suckling and so can reduce milk production. The treatment for insufficient milk production—real or perceived—is to increase suckling frequency and duration, ensure the mother has sufficient food and liquids, and offer reassurance from other breastfeeding women.

MYTH: *Breast milk substitutes are needed during an emergency.*

- ✓ **TRUTH:** **Usually, breast milk substitutes are NOT appropriate.** There are good guidelines on the use of breast milk substitutes and other milk products in emergencies. They include the WHO International Code of Marketing of Breast Milk Substitutes (May 1981), the UNHCR guidelines on the use of milk substitutes (July 1989), and the World Health Assembly resolution 47.5 (May 1994). Under the Code, donors must ensure that any child who receives a breast milk substitute is guaranteed a full, cost-free supply for at least six months.

These guidelines include stipulations that breast milk substitutes are:

- not used as a sales inducement;
- used only for a limited target group of babies (i.e., for orphans in instances where wet nurses are not available);
- used under controlled conditions (i.e., for therapeutic feeding; never in general distribution); and
- accompanied by additional health care, diarrhoea treatment, water and fuel.

In addition, the guidelines assert that feeding bottles and teats should not be provided by relief agencies except under strict supervision; and their use should otherwise be discouraged.

These guidelines should be disseminated and followed by all agencies working in emergencies.

MYTH: *General promotion of breastfeeding is enough.*

- ✓ **TRUTH:** **Breastfeeding women NEED assistance; general promotion of breast-feeding is NOT enough.** Most health practitioners have little knowledge of breastfeeding and lactation management. Women who are displaced or are in emergency situations are at increased risk of breastfeeding problems. They need help, not just motivational messages. Health workers may need to be trained to give practical help to women who have difficulty breastfeeding because of incorrect positioning, cracked nipples or engorgement (see Further Reading). A mother's fear that she "may not have enough milk" is often a cause of early termination of breastfeeding. This (mis)perception may be intensified by the stress of an emergency situation. Health workers should encourage optimal breastfeeding behaviours, even if they require selective feeding of lactating women. Policies and services which undermine optimal feeding, such as giving food supplements to infants under six months and using bottles for Oral Rehydration Salts (ORS) delivery, should be avoided.

Checklist for Safe Motherhood Services

✓ **In Emergency Phase:**

- Provision of delivery kits: UNICEF midwifery kits for health centres and clean delivery kits for home use
- Identification of referral system for obstetric emergencies
 - One health centre for every 30,000-40,000 people
 - One operating theatre and staff for every 150,000 to 200,000 people
 - Skilled health care providers trained and functioning (one midwife for 20,000-30,000 people, one CHW/TBA for 2,000-3,000 people)
 - Community beliefs and practices relating to delivery are known
 - Refugee women are aware of service availability

✓ **Antenatal Services are in place:**

- Record systems in place (clinic and home-based maternal records)
- Maternal health assessment routinely conducted
- Complications detected and managed
- Clinical signs observed and recorded
- Maternal nutrition maintained
- Syphilis screening in pregnancy undertaken routinely
- Educational activity related to antenatal care provision in place
- Preventive medication given during antenatal services:
 - iron folate for anaemia, Vitamin A, tetanus toxoid, others as indicated (malaria)
- STD prevention and management undertaken
- Materials available to implement antenatal care services

✓ **Delivery services are in place:**

- Protocols for managing and referring complications in place and transport system functioning
- Training and supervision of TBAs and midwives undertaken
- Complications are detected and managed appropriately
- Awareness of warning signs of complications in pregnancy is widespread
- Standard protocols are used to manage deliveries
- Medical facilities are adequately equipped
- Breastfeeding is supported

✓ **Postpartum services are in place:**

- Educational activities undertaken (especially family planning and breastfeeding)
- Complications managed appropriately
- Iron folate and Vitamin A provided
- Newborn weighed and referred for under-five services (e.g., EPI, growth monitoring)

ANNEX 1: The WHO Prototype Home-based Maternal Record* (parts 1, 5 and 6)

(5) Remarks from referral centre

Date	Problem identified	Action taken/Advice

(6) Before first pregnancy and during interpregnancy period

	Breastfeeding	Menstruation	Pills	injections	IUD	Surgical	Other	No methods	Very thin	Very pale	Malaria	Other problems	Chloroquine tablets
Jan-Mar													
Apr-Jun													
Jul-Sep													
Oct-Dec													
Jan-Mar													
Apr-Jun													
Jul-Sep													
Oct-Dec													
Jan-Mar													
Apr-Jun													
Jul-Sep													
Oct-Dec													
Jan-Mar													
Apr-Jun													
Jul-Sep													
Oct-Dec													

(1) Mother's health record

Name _____

Address _____

Date of first visit _____

Age:

18-35	below 17	above 35
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Height:

more than 145 cm	less than 145 cm
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Previous History

Number of deliveries:

1	2	3	4	0	5 or more
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Abortions:

no	yes
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Oedema:

no	yes
----	-----

Fits:

no	yes
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Stillbirths:

no	yes
----	-----

Abnormal deliveries:

no	yes
----	-----

Excess vaginal bleeding after delivery:

no	yes
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Labour lasting more than 24 hours:

no	yes
----	-----

Low birth weight (less than 2500 g):

no	yes
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Death of child during first week:

no	yes
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Other health problems:

*Source WHO, reproduced by permission.

Action taken	(✓ indicates done)			
Food advice:				
Iron tablets:				
Chloroquine tablets:				
Tetanus toxoid:				
Advice on place of delivery:		1	2	home/hospital

Condition of baby:

Action taken						(✓ indicates done)
Food advice:						
Iron tablets:						
Chloroquine tablets:						
Tetanus toxoid:						
Advice on place of delivery:					1	2
						home/hospital

Condition of baby:

Action taken	(✓ indicates done)			
Food advice:				
Iron tablets:				
Chloroquine tablets:				
Tetanus toxoid:				
Advice on place of delivery:		1	2	home/hospital

Condition of baby:

*Source: WHO, used by permission.

ANNEX 2: Partograph

Name	Gravida	Para.	Hospital no.
Date of admission	Time of admission	Ruptured membranes	hours

Fetal heart rate	180																								
	170																								
	160																								
	150																								
	140																								
	130																								
	120																								
	110																								
	100																								

Liquor Moulding																								
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Cervix (cm) [plot X]	10																								
	9																								
	8																								
	7																								
	6																								
	5																								
	4																								
	3																								
	2																								
	1																								
	0																								
Descent of head [plot 0]																									
Hours	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Time																									

Contractions per 10 mins	5																								
	4																								
	3																								
	2																								
	1																								

Oxytocin U/L drops/min																								
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Drugs given and IV fluids																								
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Pulse ●	180																								
	170																								
	160																								
	150																								
	140																								
	130																								
	120																								
	110																								
	100																								
	90																								
	80																								
	70																								
	60																								

BP																								
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Temp °C																								
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Urine { protein																									
	acetone																								
	volume																								

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Mother and Baby Package Interventions

Mother and Baby Package Interventions

1. Before and During Pregnancy

- ☐ Information and services for family planning
- ☐ STD/HIV prevention and management
- ☐ Tetanus toxoid immunization¹
- ☐ Antenatal registration and care
- ☐ Treatment of existing conditions (for example, malaria² and hookworm), according to country policy
- ☐ Advice regarding nutrition and diet
- ☐ Iron/folate supplementation
- ☐ Recognition, early detection and management of complications (pre-eclampsia/eclampsia, bleeding, abortion, anaemia)

2. During Delivery

- ☐ Clean and safe (atraumatic) delivery
- ☐ Recognition, early detection and management of complications at health centre or hospital (for example, haemorrhage, eclampsia, prolonged/obstructed labour)

3. After Delivery: Mother

- ☐ Management of complications at health centre or hospital (for example, haemorrhage, sepsis and eclampsia)
- ☐ Postpartum care (promotion and support to breastfeeding and management of breast complications)
- ☐ Information and services for family planning
- ☐ STD/HIV prevention and management
- ☐ Tetanus toxoid immunisation

4. After Delivery: Newborn

- ☐ Resuscitation
- ☐ Prevention and management of hypothermia
- ☐ Early and exclusive breastfeeding
- ☐ Prevention and management of infections including ophthalmia neonatorum and cord infections
- ☐ Recording of birth weight and referral of newborn for immunisations and growth monitoring

¹. Two doses

². Malaria prophylaxis to reduce low birth weight in endemic areas

Further Readings

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"Breastfeeding Counselling: A Training Course", WHO/UNICEF, Geneva, 1993.

"Care of Mother and Baby at the Health Centre: A Practical Guide", WHO, Geneva, 1994.

"Essential Elements of Obstetric Care at First Referral Level", WHO, 1991.

"HIV and Infant Feeding: Collaborative Statement by UNAIDS/UNICEF/WHO", UNAIDS, Geneva 1997.

"Joint WHO/UNICEF/UNFPA Policy Statement on Traditional Birth Attendants", WHO, Geneva, 1992.

Klein, Susan. *A Book for Midwives*, The Hesperian Foundation, 1995.

"Life Saving Skills Manual for Midwives", American College of Nurse-Midwives, 3rd Edition, Washington, DC, 1997.

"Mother and Baby Package", WHO, Geneva, 1994.

"Safe Vitamin A Dosage During Pregnancy and Lactation: Recommendations and a Report of a Consultation", WHO and The Micronutrient Initiative, Geneva, 1998.