Education material for teachers of midwifery

Midwifery education modules - second edition

Foundation module

The midwife in the community

World Health Organization

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Ms Gaynor Maclean developed the initial draft of the modules and pretested some of the teaching–learning methods in two African countries. Ms Friederike Wittgenstein prepared the field-testing version of the modules, retaining most of the ideas and methods included in the initial draft. Ms Judith O'Heir developed the field-testing protocol, coordinated the field-testing activities in five countries in Africa, Asia and the Pacific, and completed the modules following field-testing. Ms Barbara Kwast, and later Sister Anne Thompson, both midwives of international repute, were responsible as WHO staff members for the nurturing, development, production and ultimately, the dissemination and use of the modules.

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INTRODUCTION

INTRODUCTION

Every year it is estimated that worldwide, more than 500 000 women die of complications of pregnancy and childbirth. At least 7 million women who survive childbirth suffer serious health problems and a further 50 million women suffer adverse health consequences after childbirth. The overwhelming majority of these deaths and complications occur in developing countries.

To support the upgrading of midwifery skills so that countries can respond to this situation by strengthening maternal and newborn health services, a set of midwifery training modules was developed by the World Health Organization (WHO). The need for the modules was identified by the midwives and teachers of midwives from around the world who attended the Pre-Congress Workshop on Midwifery Education: Action for Safe Motherhood, held in Kobe, Japan in 1990 under the joint sponsorship of WHO, the International Confederation of Midwives (ICM) and the United Nations Children's Fund (UNICEF). The framework for midwifery education developed at the workshop formed the basis for the modules.

The modules, while primarily intended for in-service training programmes for midwives and nurse-midwives, can also be used in basic and post-basic midwifery programmes. In addition, the modules can be used to update the midwifery skills of other health care professionals. It is important to note, however, that they are not meant to replace midwifery textbooks which deal with other aspects of care during pregnancy, childbirth and the postnatal period, but are instead intended to serve as the basis for teaching midwives and midwife trainees, or others requiring these specific midwifery skills, to respond appropriately to major causes of maternal mortality such as haemorrhage, abortion complications, obstructed labour, puerperal sepsis and eclampsia. The modules can also be used for updating the knowledge and skills of midwifery teachers.

The modules aim to help midwives and others develop into skilled practitioners who are able to think critically and make clinical decisions on the basis of sound knowledge and understanding of these complications. Nonetheless, it is assumed that midwives and midwife trainees who undertake training using the modules, will already have gained proficiency in most of the basic skills such as measuring blood pressure, performing a vaginal examination, conducting a normal delivery and prevention of infection. Therefore, when using the modules for basic midwifery programmes, these skills should be taught first.

A variety of other skills are included in the modules because they are considered essential to comprehensive midwifery practice. In some countries some of these skills may not be a part of midwifery practice and, indeed, may be seen as the responsibility of the medical practitioner rather than of the midwife. However, the modules have been developed based on the belief that, in addition to basic midwifery skills, midwives require a range of life saving skills to enable them to make a significant contribution to reducing maternal deaths and to promoting safe motherhood.

In the original series released in 1996, there were five modules. More recently, a further module on managing incomplete abortion was added. The modules were updated in 2001–2002, in line with recent evidence and the WHO guideline for *Managing complications in pregnancy and childbirth: a guide for midwives and doctors*. The foundation module deals with the midwife in the community, while the technical modules each cover specific problems which may lead to maternal death. It is estimated that the foundation module will

require a minimum of two weeks for effective teaching and learning, while each technical module will require from ten days to two weeks. These time frames may vary depending on factors such as the ability of students and the resources available to support the teaching–learning process and the schedule of the teaching–learning programme.

Each of the modules is self-contained and can, if necessary, be taught independently of the other modules. They are, however, intended to complement each other, since together they present a comprehensive approach to dealing with the major causes of maternal mortality and morbidity. It is therefore advisable to use the modules in a way that will enable midwives to work through all of them.

All of the skills covered in the modules are necessary if midwives are to be effective in giving prompt and appropriate care to women who experience complications of pregnancy and childbirth, and to comply with the international definition of skilled attendant[1] for pregnancy, childbirth and postnatal care. Nevertheless, it may be that in some countries midwives are not legally authorized to perform all of the required skills. In these countries the modules will need to be adapted to conform to local regulations relating to midwifery practice, while at the same time, efforts should be made to introduce legislative changes to ensure that midwives are allowed to perform these required skills.

STRUCTURE OF THE MODULES

All the modules have the same structure, with the exception of the foundation module which follows a slightly different pattern from the others. The foundation module does not deal with a specific clinical problem, but with the general issue of maternal mortality, the factors which contribute to it, and the importance of working with the community to help make motherhood safer. The sessions in this module are therefore structured around these topics.

The technical modules deal with specific clinical problems and follow a common framework; each begins with an introduction to the specific problem which is then followed by sessions on the related avoidable factors, identifying the problem, managing the problem, and learning the required clinical skills.

The sessions in all of the modules are presented in the following way:

Introduction and outline to the session which describes:

Aims – aim of the specific session

Objectives – on completion of each session what the student will be able to do

Plan – outline plan for the session

Resources – student instructions and worksheet, puzzles and textbooks

[1] A skilled attendant is a health professional with midwifery skills, such as midwives, and those doctors and nurses who have been educated and trained to proficiency in the skills to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period and to identify, manage or refer complications in the woman and newborn. (*Making pregnancy safer: the critical role of the skilled attendant. A joint statement by WHO, ICM and FIGO*. Geneva, World Health Organization, 2004).

Instructions for the teacher (text in italics): explain step-by-step how to lead the session, and sometimes includes suggested methods for assessment of learning.

Supplementary material for the teacher (normal text): gives details of the teaching content for both theory and practice.

Instructions for students (labelled as “Instructions for Students”, or “Instructions for Group Work”): provide guidelines for individual or group activities.

CONTENT OF THE MODULES

The midwife in the community

The module begins with the Story of Mrs X which shows how certain social, economic and cultural factors, combined with delays in seeking and obtaining medical care put mothers at risk of complications which frequently lead to death. The theme from the story is then reinforced throughout the remainder of the module. Special emphasis is given to the role of midwives in promoting safe motherhood in the community by helping individuals, families and other community members understand and contribute to safe motherhood.

There are sessions covering specific topics such as the place and value of women in society; advancing safe motherhood through human rights; traditional beliefs, practices and taboos affecting the health of women during pregnancy and childbirth; the recognition and reduction of risk factors; the concept of delay as it relates to maternal death; and HIV/AIDS and safe motherhood. Additional sessions include the use of community profiling for planning community-based care and for evaluation of that care.

Managing postpartum haemorrhage

In order that students may fully understand how postpartum haemorrhage occurs, this module begins with a detailed explanation of the physiology and management of the third stage of labour. Students then learn what postpartum haemorrhage is, how it occurs, what factors contribute to it, how it can be identified, and the critical points for management.

The skills specific to preventing and managing postpartum haemorrhage include: identification of the factors which place women at risk for postpartum haemorrhage; management of the third stage of labour; massaging the uterus and expelling clots; applying bimanual compression to the uterus; applying manual compression to the aorta; suturing perineal tears; suturing an episiotomy; repair of cervical and high vaginal tears; and manual removal of the placenta. The general skills in this module include: urinary catheterization; taking and recording observations; taking blood samples for analysis; setting up and monitoring intravenous infusions; monitoring blood transfusion; universal precautions for prevention of infection, and maintaining records. Some of these general skills are also included in the other technical modules.

Managing prolonged and obstructed labour

This module begins with a review of the anatomy and physiology relevant to the management of prolonged and obstructed labour. On the basis of this, the module explains what makes obstructed labour more likely to occur, what

happens in obstructed labour, how signs of obstructed labour can be identified, and steps to be taken for effective management. Special emphasis is placed on the use of the partograph in monitoring labour.

The skills specific to preventing and managing prolonged and obstructed labour include: identification of risk factors; assessing pelvic outlet; diagnosing presentation and position of the baby; assessing descent of the fetal head; recognizing obstructed labour; and vacuum extraction. The general skills in this module include: urinary catheterization; taking blood samples for analysis; setting up and monitoring an intravenous infusion; administering necessary drugs; maintaining fluid balance; universal cautions for prevention of infection; and maintaining records.

Managing puerperal sepsis

This module begins with an explanation of the problem of puerperal sepsis. The content then covers the factors which contribute to the infection, how it can be identified and differentiated from other conditions, how it can be prevented and, if it does occur, how it can be managed. A session on HIV and AIDS, related to childbearing women, is also included.

The skills specific to preventing and managing puerperal sepsis include: identification of risk factors; identification of symptoms and signs; taking a midstream specimen of urine; taking a high vaginal swab; and maintaining vulval hygiene. The general skills in this module include: taking and recording observations; taking blood samples for analysis; setting up and monitoring an intravenous infusion; maintaining fluid balance; universal precautions for prevention of infection; administering necessary drugs; preventing thromboembolic disorder; and maintaining records.

Managing eclampsia

This module begins with an explanation of the conditions pre-eclampsia and eclampsia. The content then covers the factors which contribute to eclampsia, how it can be identified and differentiated from other conditions, how it can be prevented and, if it does occur, how it can be managed.

The skills specific to preventing and managing eclampsia include: identification of risk factors for pre-eclampsia and eclampsia; midwifery observations; and care and observation during a fit. The general skills in this module include: taking blood samples for analysis; setting up and monitoring an intravenous infusion; administering necessary drugs; urinary catheterization; preventing thromboembolic disorder; universal precautions for prevention of infection; and maintaining records.

Managing incomplete abortion

This module begins with an explanation of abortion, including the types of abortion, the effect of abortion on maternal mortality and morbidity, the prevention of unwanted pregnancy, laws and regulations related to abortion, sociocultural and religious perspectives, and the role of midwives in abortion care, with particular emphasis on emergency abortion care. The content then covers the factors which contribute to abortion, how it can be identified and differentiated from other conditions, how it can be prevented and, if it does occur, how it can be managed.

The skills specific to managing incomplete abortion include: manual vacuum aspiration, and post-abortion family planning counselling and methods. The following skills, which are also in the postpartum haemorrhage module, are included because they may be necessary when managing incomplete abortion: applying bimanual compression to the uterus; applying manual compression to the aorta; and repair of cervical and high vaginal tears. The general skills in this module include: taking and recording observations; taking blood samples for analysis; setting up and monitoring intravenous infusions; monitoring blood transfusions; administering drugs, urinary catheterization; preventing thromboembolic disorder; universal precautions for prevention of infection; and maintaining records.

TEACHING–LEARNING METHODS

The modules propose a range of teaching–learning methods designed to maximize student involvement in the teaching–learning process, based on principles of adult learning. There is an emphasis in the modules of applying theory to practice, thus adequate time in the clinical areas and visits to the community are an essential part of the teaching–learning process, and careful attention and advanced preparation is required for this component, as it is for the theory content.

Modified lectures

Modified lectures are used in the modules to introduce new information and to review content that students may already be familiar with. They include strategies such as brainstorming, buzz groups, question and answer sessions and discussion which involve students in their own learning. The modules include a variety of visual materials for the teacher to use in order to make their sessions as interesting as possible.

The teacher may wish to augment the lecture content included in the modules with information from other sources, or simply follow the outline provided. In either case it will be important to prepare in advance for each session by reading the relevant content and reference materials, and by ensuring that resources for students are available if required,

Discussions

It is important to allow time for discussion at appropriate points during, or at the conclusion of, teaching sessions. This will provide an opportunity for students to ask questions about information that is unclear to them, as well as to make contributions on the basis of their knowledge and experience, and for the teacher to assess the views and level of knowledge and understanding of the students.

Group work and feedback

Many of the sessions in the modules involve group work, which is usually followed by a feedback session from each group to the whole class. The groups should be kept as small as possible (preferably not more than six students per group), the aim being to provide an opportunity for students to examine a specific issue or problem. It is important to ensure that there is sufficient space for the groups to meet without disturbing each other. Each group will need a facilitator who will be responsible for keeping the discussion going and ensure

that the group completes its work. Where the facilitator is someone other than the teacher, this person should be supplied with briefing notes. In addition, it is essential the teacher rotates through each group without disrupting the discussion, to ensure the group are keeping to their brief, or to assist with any difficult questions or issues that may arise. In addition, each group will require a rapporteur who will take notes and provide feedback to the class as a whole. Specific instructions are provided in the sessions which involve group work.

Tutorials

A tutorial is an informal teaching–learning session between a teacher and a student or a small group of students. Tutorials are time-consuming but are essential for discussing students' progress. Tutorials usually follow a specific learning activity and give students an opportunity to express their concerns to the teacher and, in turn, give the teacher an opportunity to get to know each student better, particularly in relation to the progress being made. Tutorials are included in each of the modules, but not in all sessions.

Practical exercises

Practical exercises provide an opportunity for students to demonstrate their knowledge and skill related to a particular topic. It is important in these situations to provide clear instructions to the students about the exercises to be undertaken and to monitor their progress and provide help when required. The foundation, postpartum haemorrhage, management of prolonged and obstructed labour, and management of incomplete abortion modules include practical exercises.

Community visits

Community visits are intended to be both instructive and enjoyable experiences for the students. The foundation module includes a series of community visits aimed at helping students understand how the concepts in this module apply in the community. Community visits must, however, be planned and organized well in advance, including the choice of an appropriate community, seeking authorization from the relevant authorities to visit the community, and contacting a key person who is able to facilitate and supervise the student activities in the community. Another important consideration is the availability of transport to take students to and from the community.

The teacher may choose to organize the community visits so that they are implemented on consecutive days, rather than at the intervals suggested. If this change is made, it will be important to ensure that it does not interfere with the achievement of the learning objectives for the module.

Clinical teaching

Clinical teaching is extremely important in the technical modules because the clinical skills students learn can mean the difference between life and death for the women in their care. The underlying theory for each of the skills in the modules should be taught in the classroom and, where possible, the skills themselves taught in a simulated clinical setting prior to taking the students to the real clinical area. Facilities where clinical practice is to take place should be chosen on the basis of the anticipated availability of women with conditions included in the modules. However, even with the best of planning, it will not always be possible to guarantee hands-on experience for every

student for the full range of skills. It will be important, therefore, to consider other opportunities for students to learn the necessary skills, for instance by simulation and local mechanism to gain appropriate clinical experience following completion of the course.

Arrangements with the staff at the health facilities where clinical teaching is to take place must be made in advance. Moreover, the students' visits to these facilities for the purpose of clinical practice should not disturb routine client care. When students are learning and practising hands-on skills, supportive supervision must be provided by the teacher or by other trained and experienced staff until competency in the relevant skills has been achieved.

Drama and role play

Drama and role play may be used to emphasize points made by the teacher. In both cases students are asked to act out a real or imaginary situation. In drama, students make up their own characters and to some extent their own story in order to illustrate a particular point. In role play, students take the part of specific individuals such as the midwife, the village leader, the distressed relative or the worried mother. This provides students with an opportunity to view and understand situations, issues and/or problems from the perspective of others. Drama and role play are included as optional activities in several of the modules.

Case studies

The technical modules provide students with the opportunity to present case studies as the basis for evaluating the effectiveness of care in specific situations. Students will be able to learn from their own experience as well as from that of others. The intention of case studies is not to criticize the practice of others; instead, students should be encouraged to look at past practice and see what lessons can be learned for the future. The case studies should be based on client records selected to demonstrate the management of particular conditions (e.g. eclampsia). It should be noted that client confidentiality must be maintained throughout the presentation of case studies.

Learning games and puzzles

Learning games and puzzles provide interactive and enjoyable means for students to gain new knowledge, and to review and consolidate existing knowledge. The learning games and puzzles in the modules will be new to the teachers who use them, and it is therefore important that they become familiar with them in advance. In particular, it is important that the teacher be able to provide a clear explanation to students as to the use of the games and puzzles to be used, and to monitor progress during the activity.

Workshops

A workshop is a period of planned activity on a specific topic, often with a presentation by one or more guest speakers. Where workshops are recommended the content and programme are suggested. Workshops require careful planning with regard to the content, timetable, and facilities. The puerperal sepsis and eclampsia modules include workshops in the session on care plans.

Reflection

Learning occurs as a result of reflecting on experience. Students should therefore be encouraged to reflect on their experience in clinical practice and record their reflections in a diary or notebook. These reflections can be used as a basis for discussion with tutorial staff and/or peers. A framework for reflection includes selecting an experience, identifying their own feelings and thoughts about that experience, feelings and thoughts of others, and then evaluating what was good and what was bad about the experience. Next, the student is encouraged to try to make sense of the experience by analysing why it was good and/or bad, and determine what else could have been done in the situation to improve the outcome. Finally, an action plan is made for future practice when a similar situation arises. Discussing the experiences recorded in their reflective diaries either in groups or with a teacher helps to give students different perspectives on their experience. A summary of such discussions should be added to the recordings in the diary to help with recall at a later date.

ASSESSMENT OF STUDENTS

Pre- and post-tests

Pre-tests provide a useful means of establishing a baseline for students' theoretical knowledge. The same questions used in the pre-test should be used again in the post-test to assess knowledge on completion of the module. The teacher may also wish to add additional questions to the post-test. It should be noted that during the teaching–learning process, other options for assessment (see below) should be used, in particular to determine the progress being made by each student as the course continues. Examples of pre- and post-test questions are included in each of the technical modules.

Assessing clinical competence

The assessment of clinical competence constitutes the major component of student assessment in the technical modules. Throughout the sessions which involve the teaching of clinical skills in the modules, there are sections entitled Assessing Competence. These sections provide guidelines for teachers to assess the clinical competence of students, following the teaching of a specific clinical skill. Where possible, the teacher should observe the performance of skills in a clinical setting. However, this may not always be possible, because clients with the particular conditions included in the modules may not always be available at the appropriate time. In these circumstances teachers should attempt to provide simulated situations which offer the opportunity for students to practice and be assessed in the relevant skills. Trained staff in the clinical areas may also be involved in the assessment of the students' clinical competence.

Other options for assessment

Other options for assessment will be available during group work, such as tutorials, student seminars, learning games and quizzes, and during community visits. These activities provide vital opportunities for the teacher to monitor the progress of students in terms of achieving the learning objectives of particular sessions in the modules.

PLANNING FOLLOW-UP ACTIVITIES

Comprehensive midwifery practice relies on experience, as well as knowledge and skills. Experience is what the students will gain as they put into practice what they have learned from these modules, when they return to their respective places of work.

It is precisely when they begin to put their knowledge and skills into practice that the midwives will come across situations that may raise questions for them. For example, there may be issues and problems which they would like to discuss with supervisors and more experienced practitioners, in order to seek solutions and improve practice. This may be particularly applicable for midwives and nurse-midwives who, at the end of the training course, still require additional hands-on clinical experience in some of the skills included in the modules.

Therefore, a follow-up meeting, perhaps six months after the end of the course, will be important to enable the students to share experiences, report on successes, review progress, and discuss problems related to practice. Other follow-up meetings may also be appropriate, perhaps after one year, and even again after two years.

SUMMARY OF MODULE

Session	Teaching–Learning methods	Time frame (approximate)
1. WHY DID MRS X DIE?	Story telling or video	30 minutes
2. ARE THERE MRS Xs IN OUR COMMUNITY?	Community visit	1 day
3. COMMITMENT TO SAFE MOTHERHOOD	Group work Feedback, discussion	1 hour 1 hour
4. WALKING WHERE MRS X WALKED	Learning game, tutorial	1½ hours per small group of students
5. THE PLACE AND VALUE OF WOMEN	Discussion Group work	1 hour
6. ADVANCING SAFE MOTHERHOOD THROUGH HUMAN RIGHTS	Modified lecture Group work	1 hour 1½ hours
7. BELIEFS, TRADITIONS AND TABOOS	Briefing Community visit Discussion	½ hour 1 day 2 hours
8. RECORDING, REFERRING AND REDUCING RISK	Modified lecture Group work Community visit Tutorial	45 minutes 2 hours ½ day 1 hour per group
9. DELAY MEANS DEATH	Lecture, story telling and/or role play Group work	1 hour 1 hour
10. HIV/AIDS AND SAFE MOTHERHOOD	Modified lecture Group work, feedback, discussion	1½ hours 1½ hours
11. INTRODUCING COMMUNITY PROFILING	Modified lecture Practical exercises Group discussion Small group tutorials Community visit	1½ hours 1½ hours 1½ hours 2 hours Several days
12. EVALUATING COMMUNITY-BASED MATERNITY CARE	Group work, discussion	2 hours

GETTING STARTED

Before beginning Session 1, you may wish to recall how the sessions are presented.

Aims – aim of the specific session

Objectives – what the student will be able to do upon completion of each session

Plan – outline plan for the session

Resources – student instructions and worksheet, puzzles and text books

Instructions for the teacher (text in italics): explain how to lead the session, step-by-step, and sometimes include suggested methods for assessment.

Supplementary material for the teacher (normal text): gives details of the teaching content for both theory and practice.

Instructions for students (labelled as "Instructions for Students", or "Instructions for Group Work"): provide guidelines for individual or group activities.

Other important points to consider before you begin:

- The time-frame indicated in the plan at the beginning of each session in the module may be changed by the teacher, as required. Depending on the knowledge and abilities of students, and on their learning needs, the time required for an activity may be longer or shorter than the time specified in the plan. It is estimated that this module will require between 10 days and 2 weeks to teach.
- Ensure that any Notes for Students you wish to use are prepared in advance and are made available to your class at the beginning of the module/session.
- If you have prepared pre- and post-tests, you should refer to the appendix at the end of the module before beginning the first session in the module.
- Remember that this module, like the other technical modules, is not meant to replace midwifery textbooks. It may, therefore, be helpful to have at least one such textbook available for reference as you progress through this and the other sessions in the module.

1 WHY DID MRS X DIE?

SESSION 1
WHY DID MRS X DIE?

Aims

- To enable students to reflect on the factors that make maternal death more likely.
- To consider how these factors can be removed or reduced in their own locality through effective community-based health care.

Objectives

On completion of Session 1, students will be able to:

- Identify the predisposing factors to maternal death.
- Discuss the importance of community-based care in relation to safe motherhood.

Plan

Video "Why Did Mrs X Die?", or by story telling (30 minutes).

Resources

In Session 1, the story of Mrs X is adapted from the video "Why Did Mrs X Die?".
This video is on sale from the World Health Organization, Marketing and Dissemination, CH-1211, Geneva 27, Switzerland. email: publications@who.int

INTRODUCTION

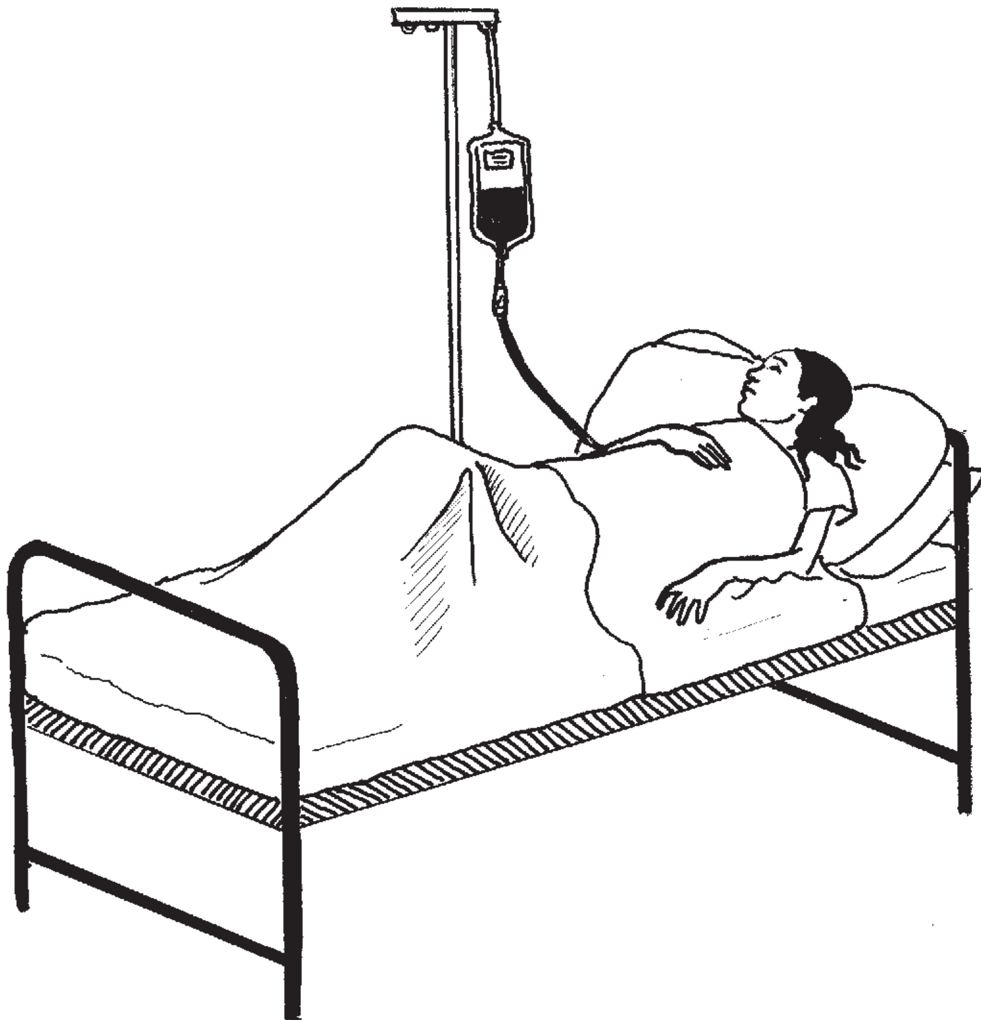
Start the session by telling the story "Why did Mrs X die?".

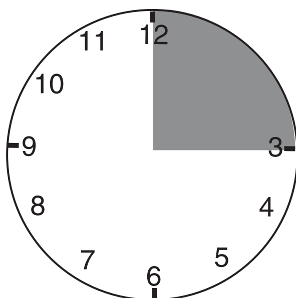
TELLING THE STORY: WHY DID MRS X DIE?

This is the story of one case of maternal death. For the sake of anonymity, let us call our unfortunate woman, Mrs X.

Mrs X died during labour in a small district hospital. The physician in charge had no doubt why Mrs X died. It was a straight forward clinical diagnosis - a case of antepartum haemorrhage due to placenta praevia, which means that the placenta, or what we call the "afterbirth", was situated too low down in the uterus. A woman with this condition will inevitably develop bleeding in the latter part of pregnancy or before delivery. The physician was satisfied with the diagnosis, looked up the book of International Classification of Diseases, entered the right code number for the condition and closed the file on Mrs X.

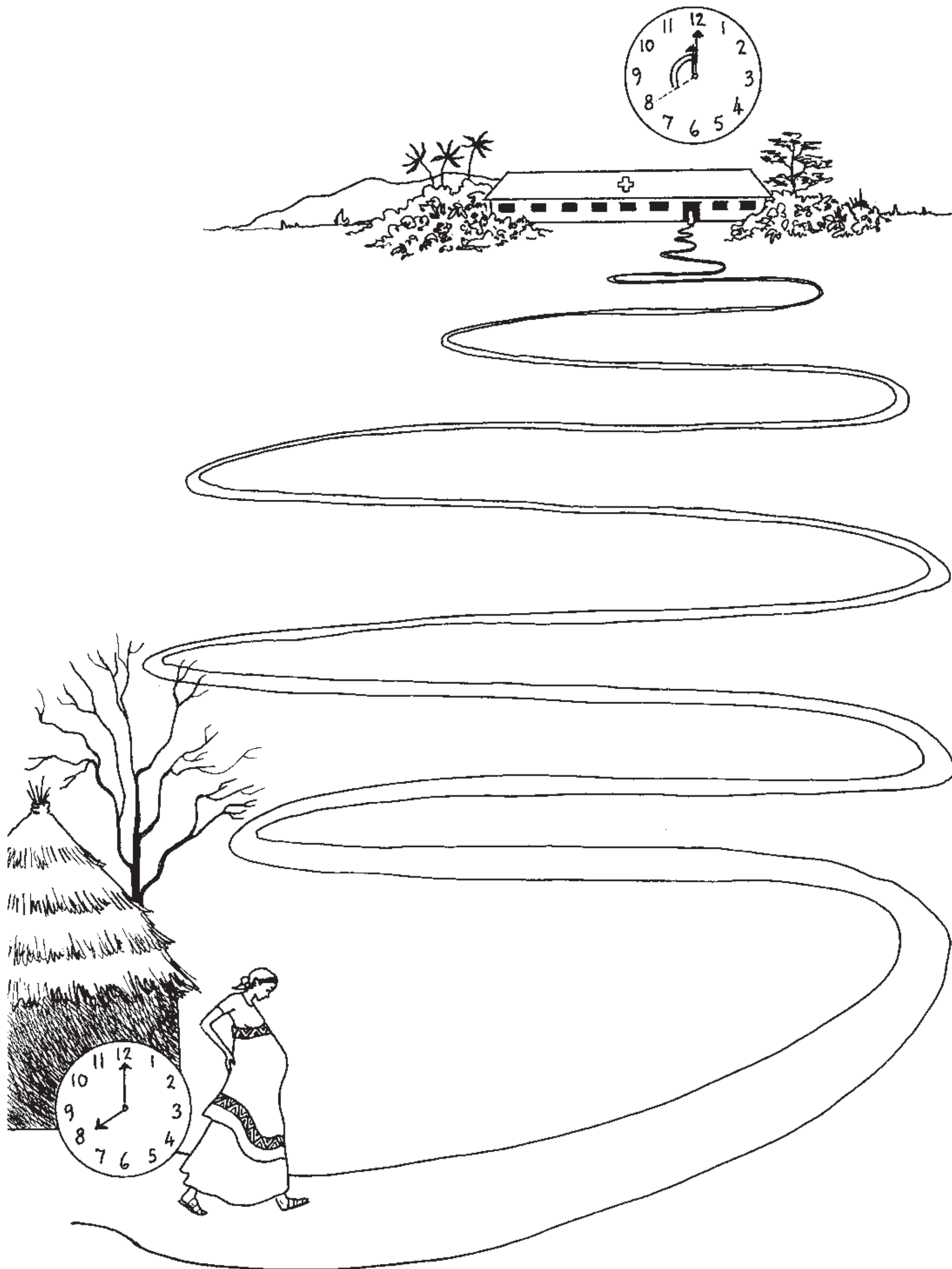
But the question is not completely answered, and there are others who are still looking for other answers. The obstetric profession has a small committee which is making confidential inquiries into the causes of maternal deaths according to standards that have been developed by the International Federation of Gynaecology and Obstetrics. The committee met, asked for the complete hospital record of Mrs X and examined the record in more detail. The file on Mrs X was re-opened.





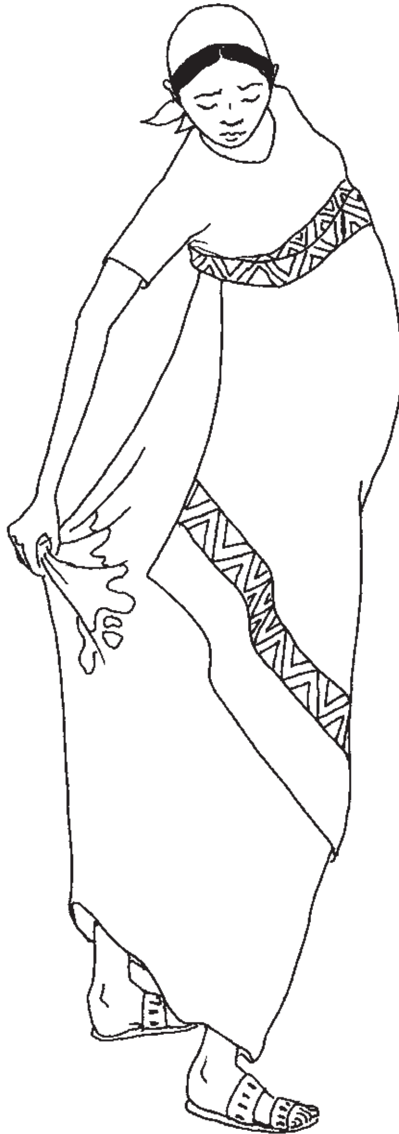
On reading the file of Mrs X, the committee found out that there were two striking points in her hospital record. The first point was that although she was admitted to hospital as a case of severe bleeding and in a condition of shock, she received only 500 cc or ½ litre of blood by transfusion. That was all the blood the hospital had available to give her and that amount was barely sufficient to compensate for her severe blood loss. The second point was that Mrs X had to undergo caesarean section in the hospital to stop the bleeding. That operation was carried out three hours after her admission. Mrs X died during the operation.

The committee looked into the case which said that the death of Mrs X was avoidable. The committee argued in its report that, if blood transfusion had been more readily available, and if the service had been better prepared to deal with emergencies, a life would have been saved.



It took Mrs X four hours to reach hospital from the time she started bleeding severely, because transport was not readily available to take her to the hospital.

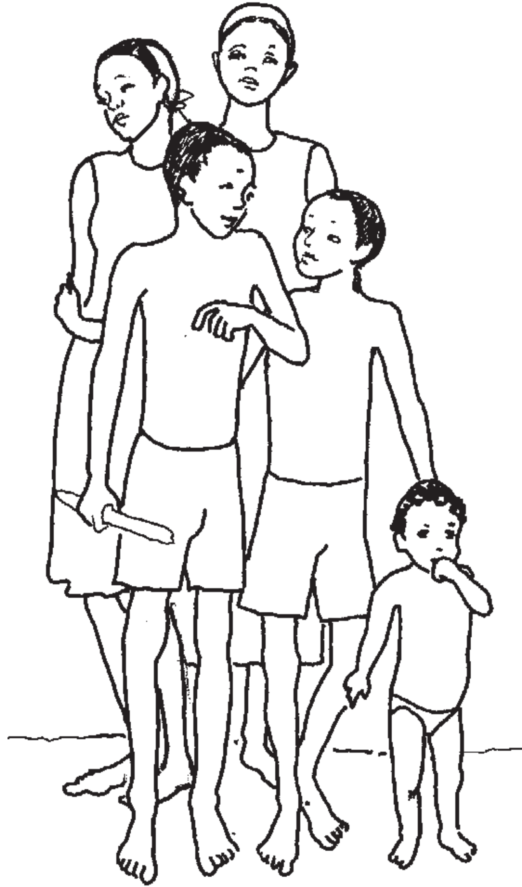
It was also revealed that this was not the first time she suffered bleeding. In fact she had two minor episodes of bleeding during the same month and on both occasions the bleeding stopped spontaneously. This is a very dangerous signal in late pregnancy. It always indicates that a severe attack of bleeding is imminent, yet Mrs X was never warned about this and no action was taken.



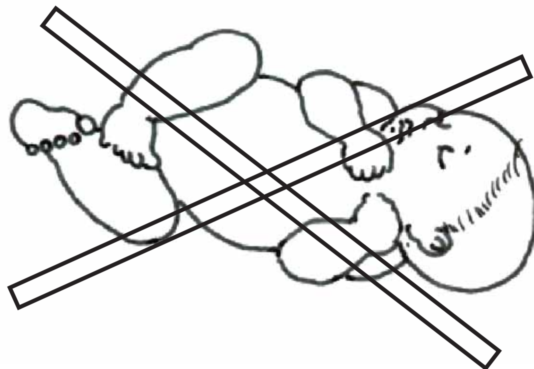
Mrs X was not a very healthy woman. Even before pregnancy, she suffered from chronic iron deficiency anaemia caused by malnutrition and parasitic infestations. That severe anaemia must have contributed to the fact that she could not endure the additional severe blood loss. Her reserves of blood were already at a very low level.

Mrs X did not have access to any sort of prenatal care during her pregnancy.

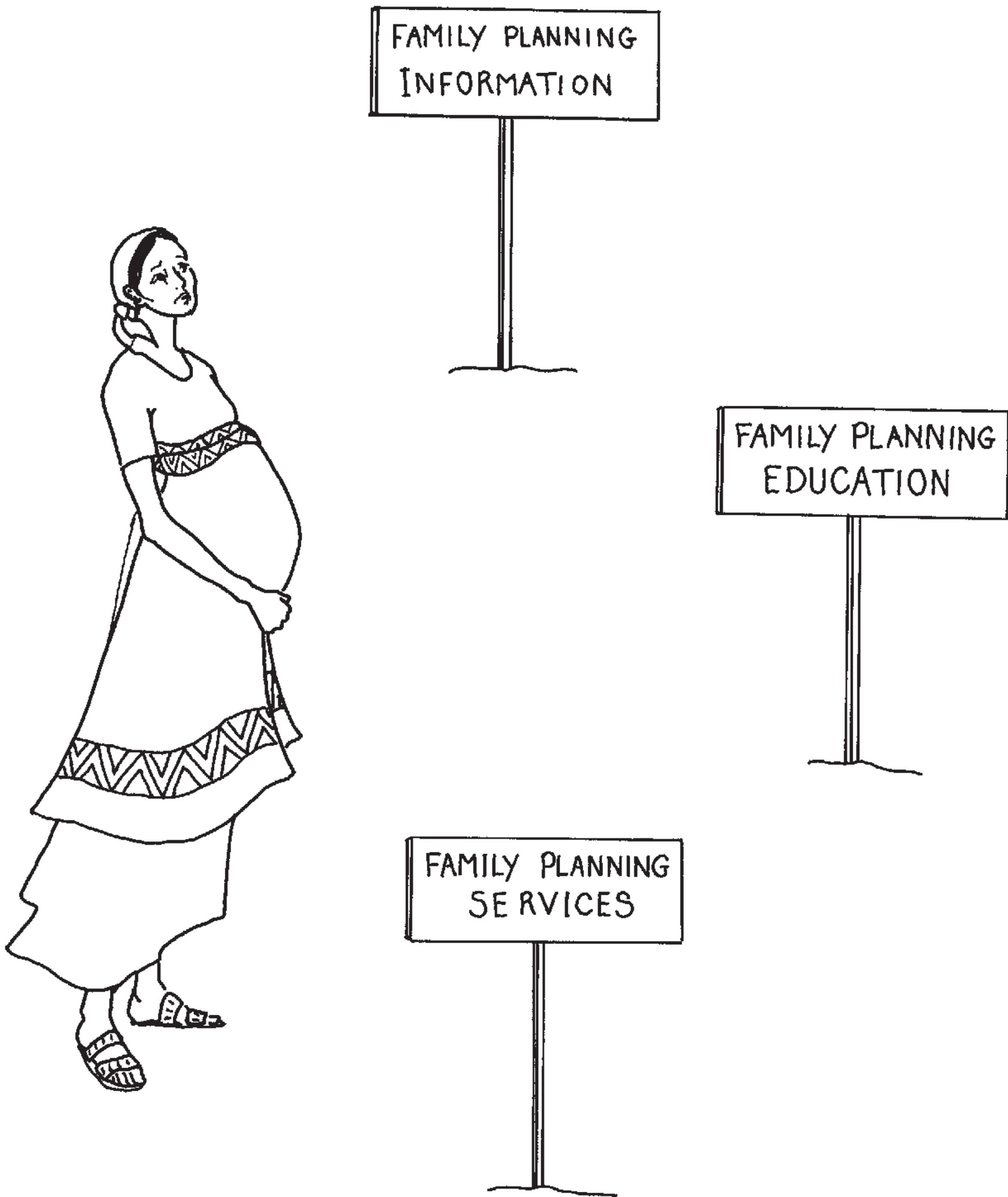
Mrs X is 39 years old, five of her children are still living, three of them are males, and Mrs X did not want another child.



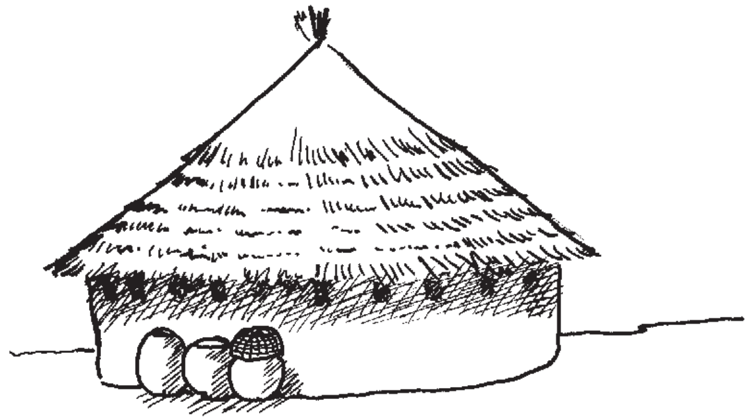
In addition, because of her age and because of her parity, her pregnancy carried a much higher risk than her previous pregnancies.



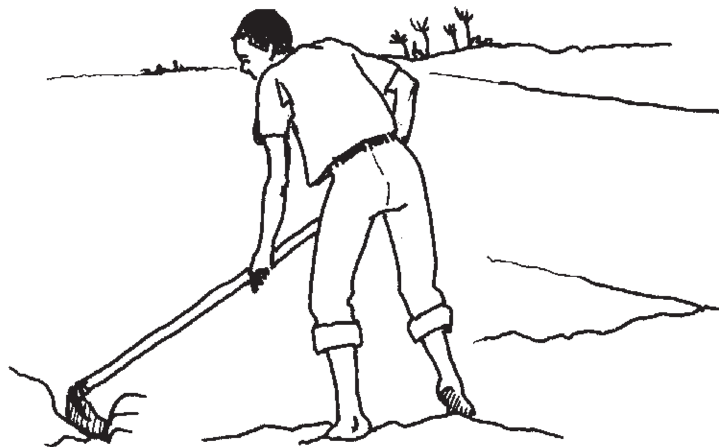
Mrs X never had access to any family planning information, education or services, and therefore never had the opportunity to use any method of family planning in her life.

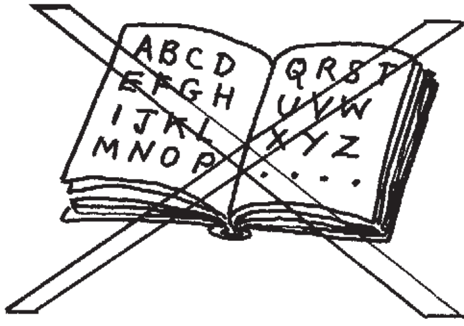


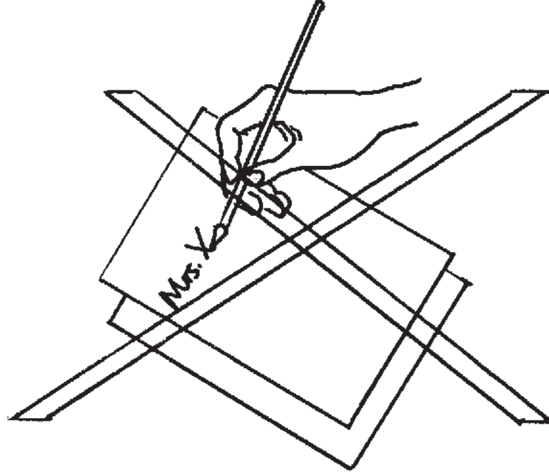
If this unwanted pregnancy of Mrs X had not taken place, she would not have died from the cause she died from.

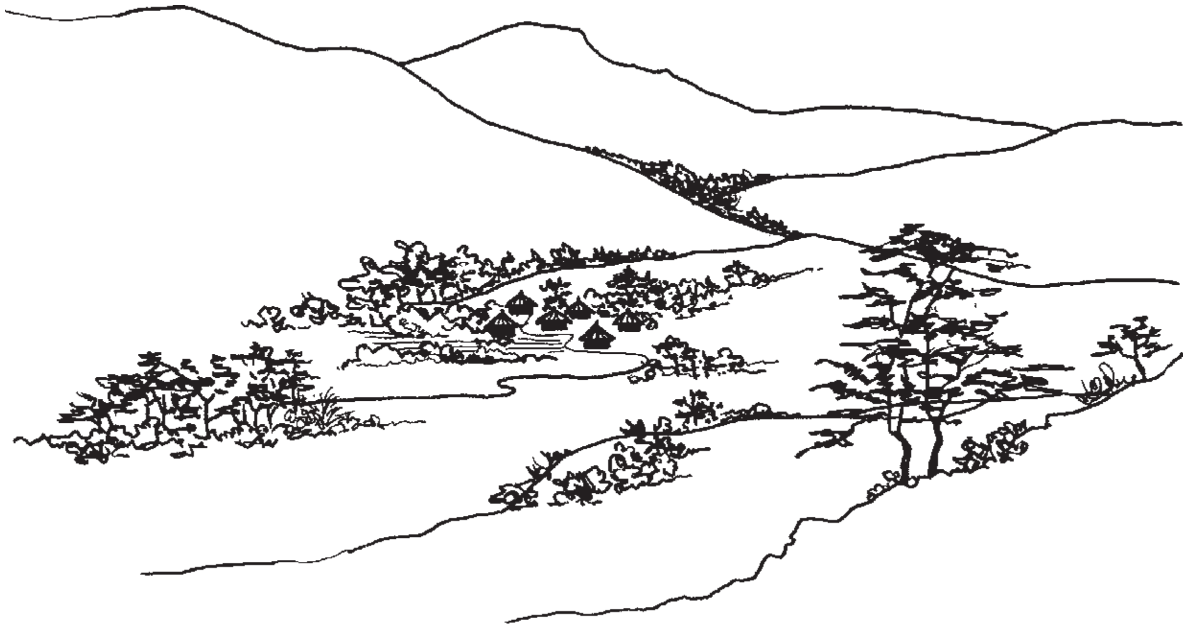


Mrs X was also a housewife, and her husband a poor agricultural labourer.

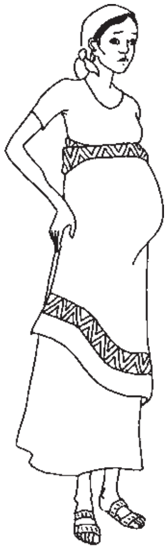








She was an illiterate woman and she lived with her husband in a remote village.



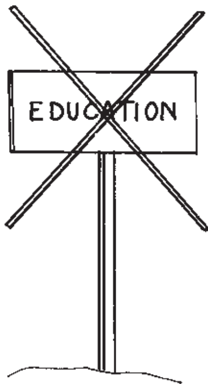
A woman of Mrs X's socioeconomic position has a relative risk of maternal mortality:

5 times more than the average in the whole country.

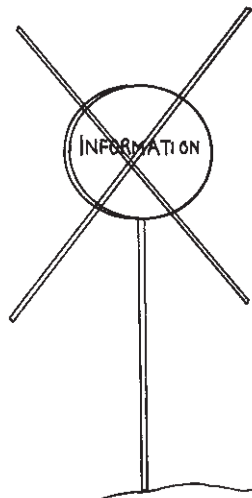
10 times more than a woman in a higher socioeconomic position in the country in which she is living.

100 times more than a woman living in a developed country.

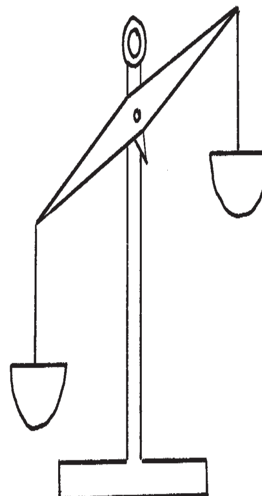
The real reason why Mrs X died was because of her socioeconomic position:



Mrs X died because of poverty



Mrs X died because of lack of knowledge and information

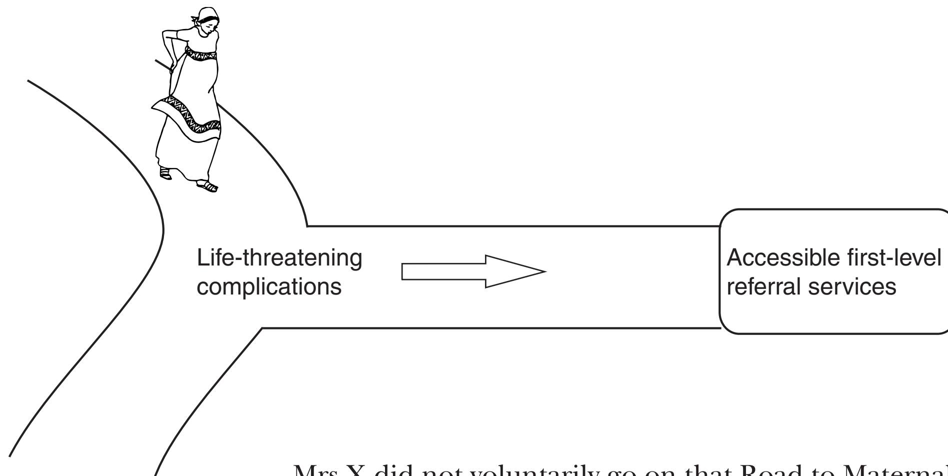


Mrs X died of social injustice

If Mrs X had been an educated woman, if she had been gainfully employed, and if she had had her fair share of nutrition within society, her risk of dying would have been much less.

It is clear that there are different perspectives in the way one looks at the causes of maternal mortality. In order to answer the question "Why did Mrs X or other Mrs Xs die?" we need to take all these perspectives into consideration. In other words, we need to reconstruct the story of Mrs X.

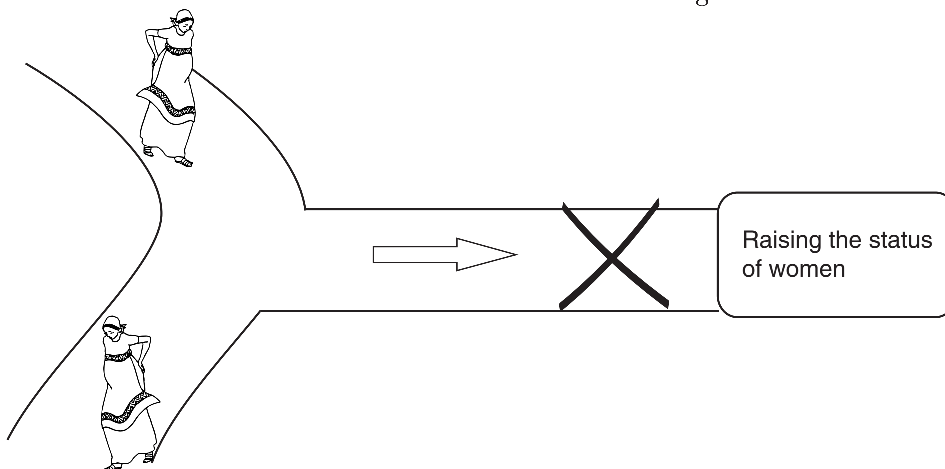
We need to retrace the steps of Mrs X along what one can describe as The Road to Maternal Death.



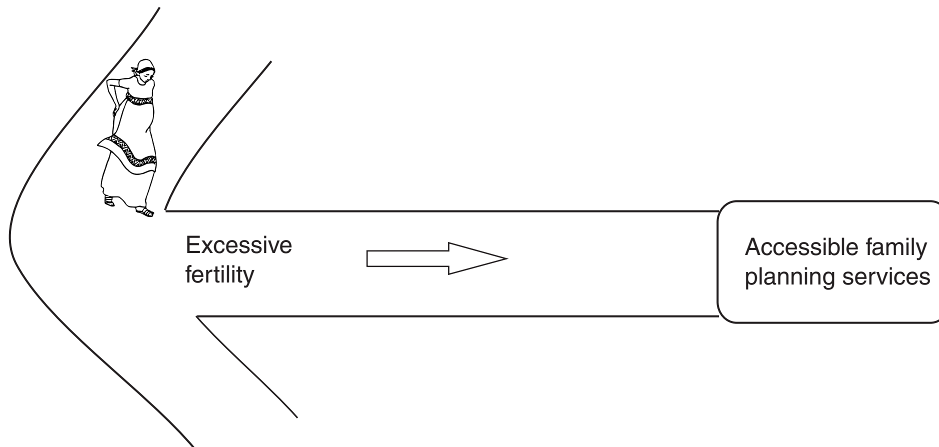
Mrs X did not voluntarily go on that Road to Maternal Death. She was led to the start of the Road by the poor socioeconomic development of the community in which she was born, and in which she lived. But it is not just the general level of socioeconomic development that matters. Even more important is the equity with which the benefits of socioeconomic development are made available to members of the community. As a female, Mrs X did not get an equal share of whatever little benefits of socioeconomic development were available in her community.

At that stage on The Road to Maternal Death there was a way out for Mrs X.

- If Mrs X had had the opportunity for some education, for gainful employment, or for proper nutrition she would probably have found her way off The Road to Maternal Death. Unfortunately, that exit was not available to Mrs X and she had to continue along the Road.



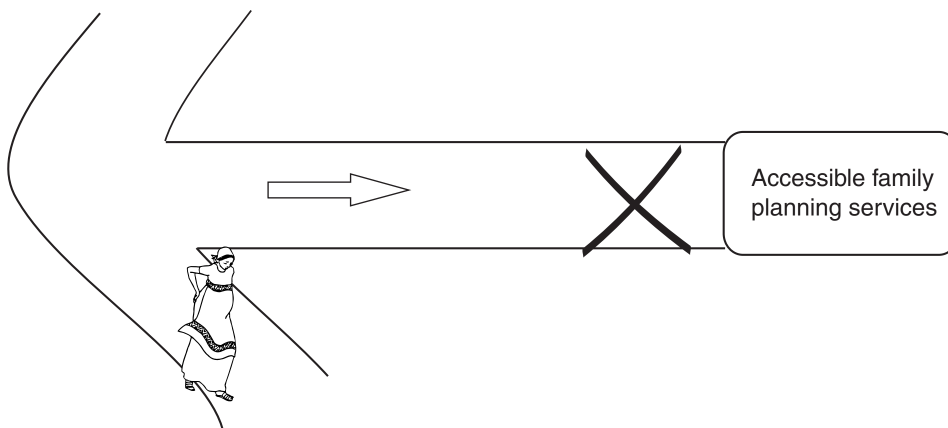
The next stretch of the Road for Mrs X was excessive fertility.



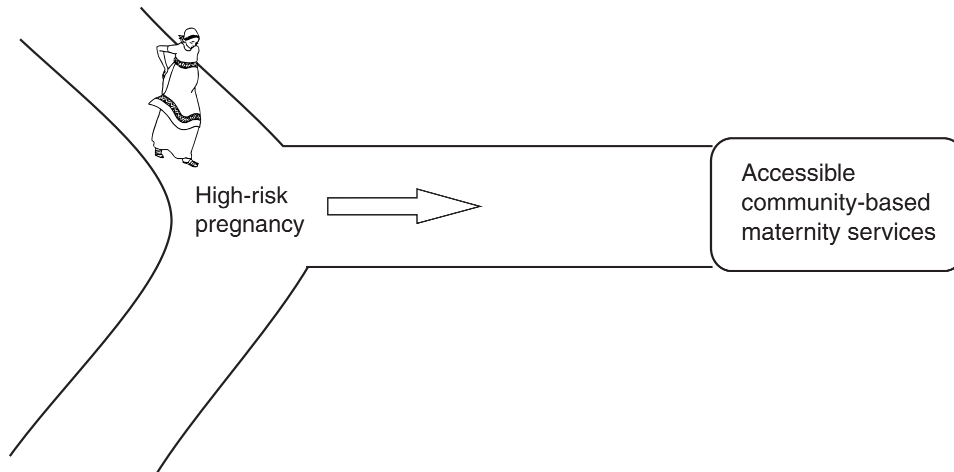
Her fertility, and childbearing, was her only acknowledged contribution to the society in which she lived. Children were the only goods she could produce and the only goods she could deliver. Her status as a woman in her community depended completely on her role as a mother. Excessive fertility not only increased her chances of travelling further along The Road to Maternal Death, but because of advancing age and parity she was at increasingly higher risk during pregnancy and childbirth.

Still at this stage on The Road to Maternal Death there was a way out.

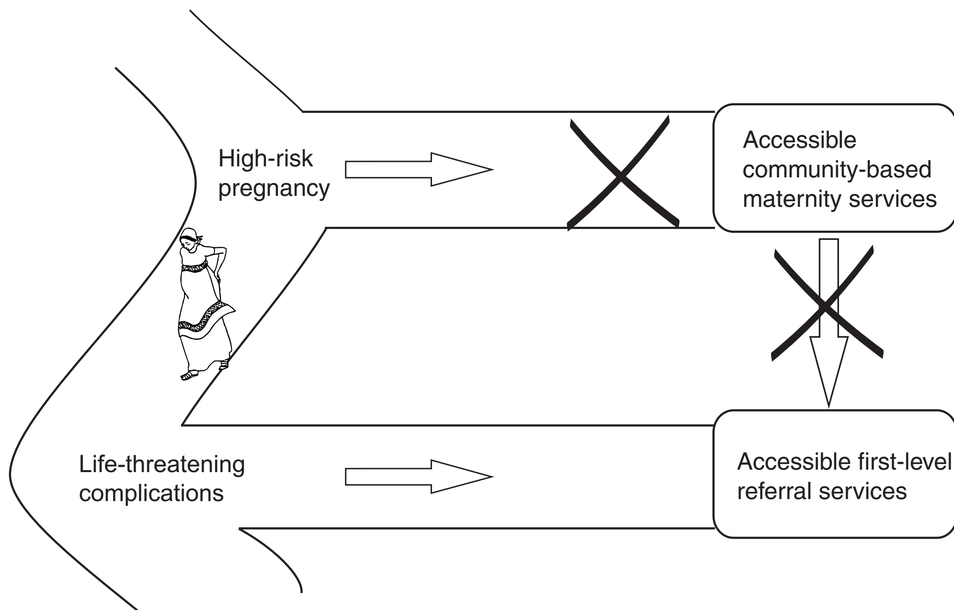
- If Mrs X had access to family planning information, education and services, she could have found her way off the dangerous Road. Mrs X was denied that exit and had to continue her march along the Road



Now, because of her advanced age, because of her advanced parity, because of her poor nutrition, because of her severe anaemia, she came under what we call an obstetric category - the category of high risk pregnancy. By high risk pregnancy we mean that small group of women who have most of the complications. That was the stage Mrs X found herself at, yet even at that stage there was still a way out.



If community-based maternity services had been available; her high risk category would have been detected by simple screening; her anaemia would have been corrected; warning signals such as her episodes of bleeding would have been carefully noted; and she would have been referred to the nearest hospital service in time while she was still in a good condition. That exit was not open to Mrs X and she had to continue along the Road.

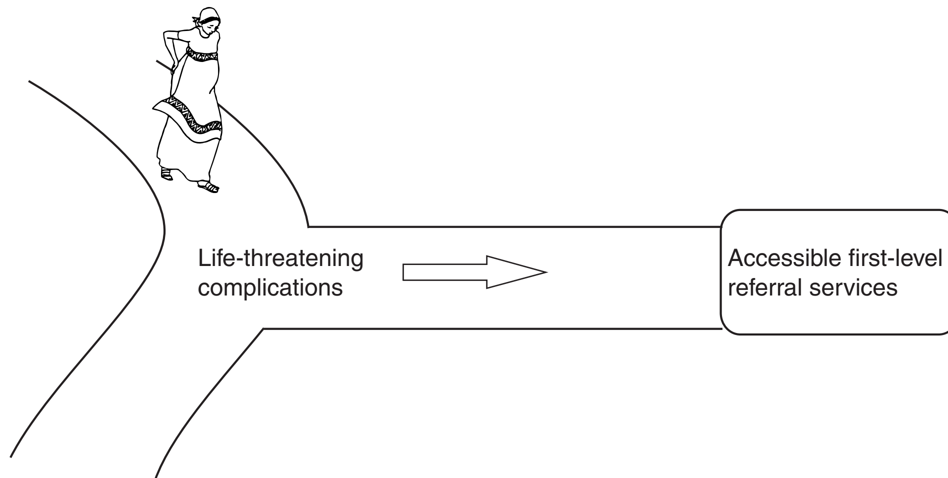


And that was the critical part of the Road, that was the stage of what we call life-threatening complications. These include conditions such as haemorrhage, eclampsia, sepsis, obstructed labour, complicated abortion and other less common but serious conditions.

The inevitable happened. Mrs X developed her life-threatening complication, her antepartum haemorrhage.

Even at this stage there was a last way out.

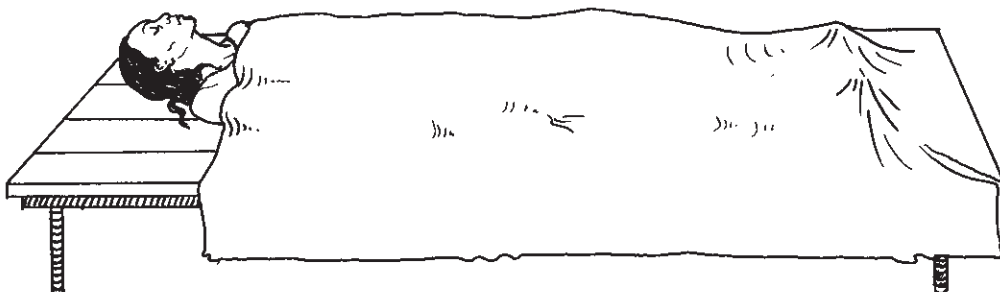
If she had access in time to good services at first referral level so that her serious life-threatening condition could have been properly managed, Mrs X could have been saved. But that was her last chance and Mrs X lost that last chance.



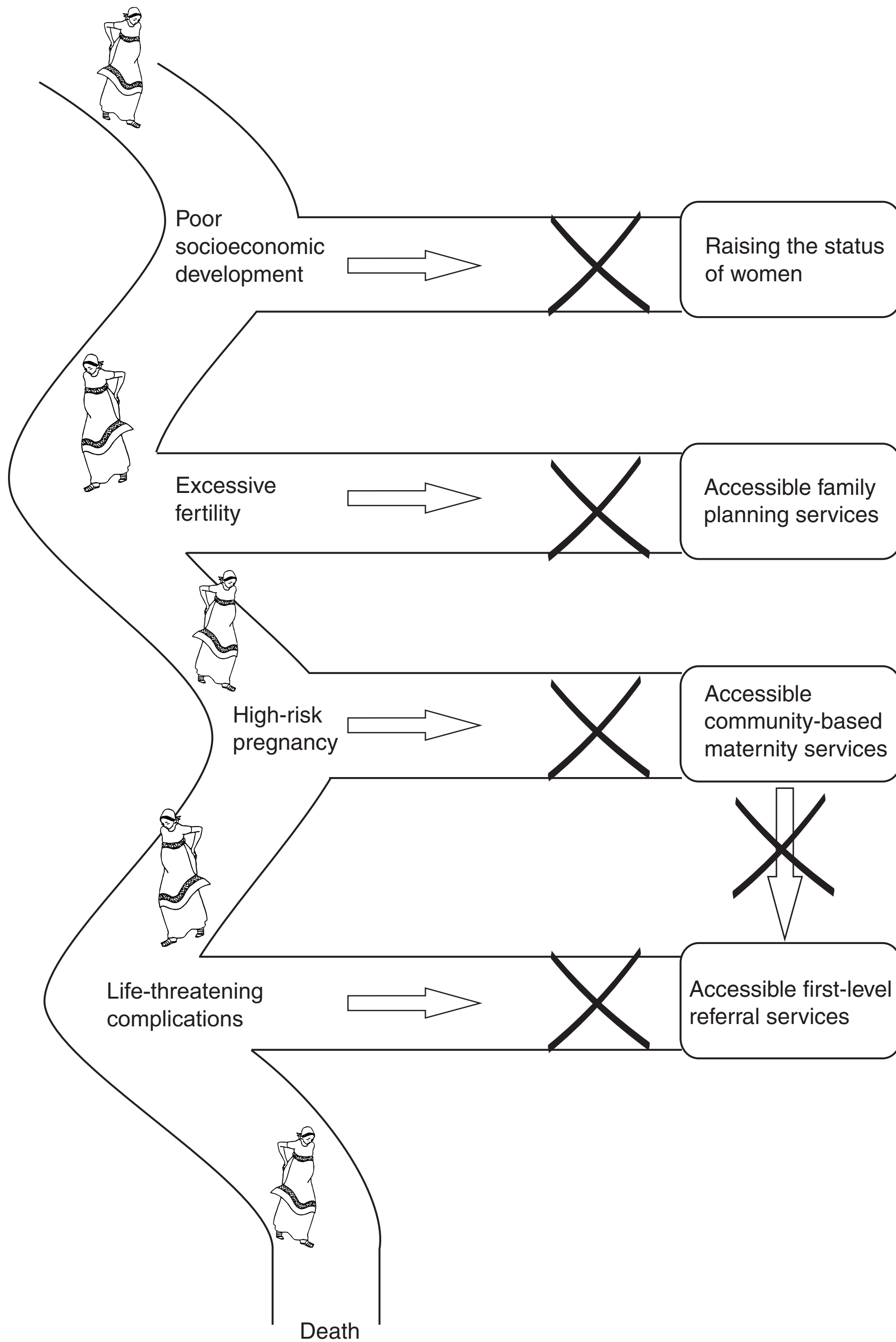
That was the unfortunate journey of Mrs X along the slippery, dangerous Road to Maternal Death. The journey has left us with a vision of how women die and how women can be rescued. Women risk death when they step onto The Road to Maternal Death at any stage. Women can be rescued if they can be helped to follow one of the ways off the Road. It may not be possible to restrict completely the access to The Road to Maternal Death. It is certainly possible to let women off the Road through its various exits, but any successful strategy for mothers' survival will have to effectively utilize every exit along The Road to Maternal Death.

If we try to emphasize only the earlier exits then we are going to miss the women who join the Road later on or who continue along it. If we emphasize only the later exits, the medical exits, and we do not give equal emphasis to the earlier social exits, the load on those medical exits will be too much for the medical services to cope with.

Mrs X is dead.



There are millions of Mrs Xs still travelling along The Road to Maternal Death.



In the 30 minutes it has taken to tell this story, another 30 women (one for each minute) will have reached the dark end of the Road. These mothers need to be saved, they can be and they must be saved.

It is often effective to take a break after this. Students can reflect on what they have seen and heard.

The next session will take the students out into the community to make discoveries for themselves. Make sure that arrangements are clear and visits are well organized.

2 ARE THERE MRS Xs IN OUR COMMUNITY?

SESSION 2
ARE THERE MRS Xs IN OUR COMMUNITY

Aims

- To enable students to discover what community members think about safe motherhood.
- To begin, or further develop a meaningful relationship between midwives and the community.

Objectives

On completion of Session 2, students will be able to:

- Identify which factors, in the opinion and experience of community members, enable women to achieve safe motherhood.
- Identify which factors, in the opinion and experience of community members, prevent women achieving safe motherhood.

Plan

Short briefing of students before community visit.
Community visit (1 day).

INTRODUCTION

In this session, the first of a number of community visits associated with this module will be carried out. Sessions 7, 8 and 11 also include community visits and it is important to review the purpose of these visits before following the steps listed below.

In order for the community visits to be successful, it is essential that they are planned well in advance. Depending on the structure of the health system in your county, and the lines of authority, the planning process may vary somewhat but should include the following activities.

1. *Select one or more communities (the number of communities selected will depend on the number of students in your class) where the activities described in this session, as well as Sessions 7, 8 and 11, can be undertaken.*

2. *Inform the relevant authorities regarding the purpose of the first and subsequent visits, obtain approval from them to carry out the visits, and request assistance to identify a key person in the community who could facilitate the implementation of student activities.*

3. *Make sure that transportation is available for students to go to the community for each of the planned visits.*

4. *Remind students to bring their lunch if it will not be possible for them to obtain food in the community.*

5. *Make sure that students have enough time in the community to do what is expected of them for each of the planned visits (this is particularly important for Session 11).*

6. *Accompany the students on their first visit to the community and, if possible, on subsequent visits and take with you some basic medical supplies to provide care, if needed, to the persons/families interviewed.*

MAKING THE VISIT

*Make sure that students are able to explain the meaning of safe motherhood. For example, it involves ensuring that women have the information and services to plan the timing, number and spacing of pregnancies; access to good, reliable and appropriate antenatal care, thereby preventing complications, where possible, and ensuring that when they do occur they are detected early and treated appropriately; ensuring that women have access to the care required for a clean and safe delivery; and ensuring that essential care, including life-saving skills, is, available for all women who experience complications.**

Give students few but clear instructions, such as:

- *show respect*
- *listen*
- *show genuine interest and concern*
- *if you come across a problem where you are not qualified to help, refer to someone who can.*

Explain to the students that they must ask two important questions:

1. *What in this community promotes safe motherhood?*

2. *What in this community prevents safe motherhood?*

If community members have difficulty understanding the questions, advise students on how to make the questions more simple.

Students should listen carefully to the answers given by a range of people in the community, including women of childbearing age, older women, mothers-in-law, TBAs, men, village and religious leaders. It may not be appropriate to write down their answers during the interviews as this may intimidate some people. However, responses should be written up as soon as possible.

Make sure the students understand the purpose of the visit. That is:

1. *To discover what the people in the community think about safe motherhood.*

2. *To begin or further develop a meaningful relationship between midwives and the community.*

No more than two students should visit one home.

Remember*:*

Students are going out into the community early in their studies because in order to work as midwives in the community:

- *it is important to listen to people in the community*
- *it is important to understand people in the community.*

Remember to praise students when they are doing something right, such as:

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* *Mother-baby package: implementing safe motherhood in countries.* Geneva, World Health Organization, 1994 (WHO/FHE/MSM/94.11).
Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. Geneva, World Health Organization, 2004.

- *they dressed appropriately*
- *they greeted the villagers correctly*
- *they addressed the village elders with respect*
- *they made it easy for a family to talk about a difficult subject*
- *they showed understanding or concern for all the family.*

Let them know what you liked. You could start by saying:

"I liked it when you …".

Tell students to think about their discussions and write down the important points to remember. They will need this information in the next session.

Be ready to provide health care, if needed, to those interviewed. Remember, students are expecting help from community members. They should be prepared to give help in return.

At the end of the visit, organize a short debriefing session with the students and ask them to record in a diary what they learnt, for future reference. Debriefing is a method of helping students to make sense of what they experienced. One way to help them with this is to ask some questions such as:

- *what did you enjoy most about the day/visit?*
- *what surprised you the most?*

You can ask other questions such as why they enjoyed the visit. Try to end on a positive note. Be aware of students who may have had a bad experience, or may have been upset by something they saw or encountered during the visit. Offer such students private time to discuss their experiences or feelings in a secure environment, or alternatively, if they wish, arrangements can be made to speak with a student counsellor where they exist.

3 COMMITMENT TO SAFE MOTHERHOOD

SESSION 3
COMMITMENT TO SAFE MOTHERHOOD

Aims

- To enable students to reflect on their experiences in the community, and make a commitment to promoting safe motherhood through community-based care.

Objectives

On completion of Session 3, students will be able to:

- Describe the factors which people in the community consider:
  - enable safe motherhood
  - prevent safe motherhood.
- Explain how the midwife can influence these factors.
- Identify factors in the communities visited which may contribute to maternal death.
- Define maternal mortality and list the major causes of maternal death.
- Write the goals they intend to follow in order to provide midwifery care at community level to help more women achieve safe motherhood.

Plan

Group work (1 hour).
Feedback, discussion (1 hour).

Resources

Instructions for Group Work.

INTRODUCTION

In this session, the students examine the information gathered during their community visit.

Organize the students into groups and give each group the Instructions for Group Work provided at the end of this session. Allow them one hour to accomplish the assignment.

Each group member will have her/his own responses to questions 1 and 2. Make sure that all students say what they discovered.

SAFE MOTHERHOOD

Enabling factors	Preventing factors
▪ Antenatal care in the village ▪ Good system of referral for women at risk ▪ Safe motherhood committee operating in village ▪ Maternity waiting home available to women	▪ No trained midwives available to the community ▪ TBAs untrained ▪ No working relationship established with community leaders ▪ No transport available for emergencies

... and so on.

Discuss the practical steps required to provide the care needed so that women in the communities visited may achieve safe motherhood.

At this point, ask for feedback on the reasons why Mrs X died - in particular the factors that students have seen during their community visits.

List the answers from the groups.

First list the factors which contributed to the death of Mrs X, then mark those which could occur in the villages visited and discuss them. Encourage honesty.

Contributing factors to Mrs X's death

Recall the contributing factors to Mrs X's death. Remind students of the story and encourage them to list similar contributing factors which they discovered during their community visit. Students can also list factors of "missed cases". These are women who almost died.

Mrs X died as a result of antepartum haemorrhage due to placenta praevia but the contributing factors to her death were:

- inadequate blood transfusion
- delay in arresting haemorrhage
- delay in receiving treatment
- inability of the woman or her family to recognize a dangerous complication of pregnancy
- chronic iron deficiency anaemia
- malnutrition
- parasitic infection
- advanced age (39 years)
- high parity
- unwanted pregnancy
- poverty
- lack of education and information
- illiteracy
- social injustice.

Contributing factors in the community

It is very important to see the real situation, and not what one would like to believe is true.

If students have difficulty, the following questions may help:

1. *What did the community members say?*

2. *What did they suggest would promote safe motherhood?*

3. *How could we as midwives or health practitioners provide/assist or enable safe motherhood?*

Discuss important practical issues which arise, including these two questions:

4. *Were there problems which need to be investigated? (e.g. iron tablets not prescribed, not available, out of stock).*

5. *What action must be taken so that safe motherhood is promoted in the community?*

Maternal death

Introduce the students to the following definition and major causes.
A maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

The five major causes of maternal mortality or maternal death are:

- unsafe abortion
- eclampsia
- obstructed labour
- postpartum haemorrhage
- puerperal sepsis.

Statement of intent

Ask each group to respond to question 5 on the previous page by reading out their goals. Students may wish to discuss how they can combine their goals into one statement for the whole class.

Key expressions that will help the students to write a combined statement are

- *community needs*
- *community-based care*
- *access to care*
- *referral system*
- *high risk*
- *the Road to Maternal Death (with its places of entry and exit)*
- *safe motherhood.*

An appropriate statement could read as follows:

"This group affirms that maternity care in the community is essential. We therefore intend to ensure that every woman in ______________ *has access to a good system of maternity care which will meet her needs at community level and will include an efficient referral system.*

We intend to approach community leaders and other members of the community, and in partnership with them, tackle the problems of poverty, ignorance and social injustice.

"The Road to Maternal Death" must no longer run through our community.

The statement must be genuine (students must mean what they say), and it must be possible to achieve. Encourage students to use their own words.

Take time to discuss how this can be achieved.

The students should feel they are working together with the community towards achieving safe motherhood for all women in their community.

Make sure that each student has a copy of the group statement and also write it down on the blackboard. In other modules the students will compile action plans to put the statement into practice.

SUMMARY

Summarize this session by reminding students how they have considered the following:

- *why Mrs X died?*
- *why women in their own community die?*
- *how midwives can help to promote safe motherhood?*
- *who should midwives work with in the community to promote safe motherhood?*
- *how midwives can support women in the community to make decisions related to pregnancy and childbirth?*

Tell the students that they will be helped to use their skills and develop more skills during the study of this module and the other modules. These skills will enable people in the community to achieve safe motherhood.

INSTRUCTIONS FOR GROUP WORK

From the information you gathered on your community visit:

1. List the factors that enable women to achieve safe motherhood in that community.
2. List the factors that prevent women achieving safe motherhood in that community.
3. Which of these factors can be influenced to enable more women to achieve safe motherhood?
4. Which of the factors that contributed to the death of Mrs X could be contributing factors to maternal death in the community you visited?
5. In the light of your community visit, write down the goals that you intend to follow in order to provide midwifery care at community level, so as to enable more women to achieve safe motherhood.

e.g. you could begin like this:

This group affirms that midwifery care in the community is essential and we therefore intend to ...

Appoint a group leader, and a person to report back on behalf of the group.

You have **one** hour in your group.

4 WALKING WHERE MRS X WALKED

SESSION 4
WALKING WHERE MRS X WALKED

Aims

- To enable students to identify with the difficult circumstances of many women in the community and to better appreciate those circumstances.
- To prepare students to provide care with empathy, and motivate them to do so.
- To enable students to select issues of importance in their own community, and share these with the whole group.

Objectives

On completion of Session 4, students will be able to:

- Write a typical story or profile of a woman who has experienced many difficulties in achieving safe motherhood.
- Discuss what would help to promote safe motherhood in the community, and identify which problems can be prevented by community-based midwifery care.

Plan

Learning game, tutorial.
Up to 6 players can play the game at one time, therefore time needed will depend on the number of students and the number of copies of the game available. Allow approximately 1½ hours for one group of six students to play the game.

Resources

Learning game: Walking where Mrs X walked.
Coloured buttons (one for each player).
Provide pens/pencils and paper.

INTRODUCTION

The rules of the game and Instructions for Students are on the following pages. Make sure that the students understand how to play the game, and what to do afterwards.

Help each group start the game and be available for questions.

Students should write down what appears on the cards they collect during the game. They will need a pencil and paper.

After the game, the students will need time to write up their stories or profiles based on the cards they collected during the game, and which they will present by story telling, dance or drama.

Divide the students into tutorial groups of no more than six. The tutorial groups should be the same group who played the game together. Arrange separate study periods for each tutorial group.

PLAYING THE GAME

The game is at the end of this module.

Rules of the game and instructions for learners

The aim of this learning game is:

- *to help students identify with the difficult circumstances of many women in the community; to appreciate the reality of these circumstances; to encourage discussion of factors which influence safe motherhood.*

The game consists of a board and 7 sets of cards. These are:

- Poverty and illiteracy
- Safety pass
- X factor
- Safe motherhood
- Transport and communication
- Maternal death
- Hills of health.

You will also need:

- A small table for the board, and chairs for the players to sit on. (Players may prefer to sit on the floor)

- Dice. (If this is not available, cut 6 pieces of card of equal size. Write down the numbers: 1, 2, 3, 4, 5 and 6 each on a separate card. Place the cards in a bag or envelope. Each player can then pick out one card when it is their turn. This will tell them how many places to move instead of using the dice)
- Coloured buttons. One for each player.

The game is suitable for 3 to 6 players.

Getting ready

1. Place the board in the centre of the table.

2. Place the 7 sets of cards in stacks at the centre of the board. For each set a space is marked with the same picture as on the cards.

3. Each player chooses a different coloured button which they should place on the table in front of them.

Playing the game

1. Players take turns at throwing the dice once. The aim is to throw a 6. No player may place their button on the board until they have thrown a 6 on the dice which means "pregnancy confirmed" so the player now places their button on the corner square marked START.

2. The player who has thrown the 6 now has another throw. They then move their button forward the number of squares shown on the dice.

3. If the player lands on a square marked

   Hills of health
   Poverty and illiteracy
   Transport and communication, or
   X factor

   they must pick up a matching card from the centre of the board and keep it.

4. Each card has on it a statement with either a "+" or a "–" sign, indicating a positive or negative card.

   The + sign indicates the situation is good.
   The – sign indicates it is bad or harmful.

5. A player who has collected 3 positive cards can claim a safety pass.

6. A player who has collected 2 safety passes can claim a safe motherhood card.

The aim of the game is to obtain a safe motherhood card.

7. If a player holds 5 negative cards, they must exchange them for a maternal death card.

8. It is possible to cancel some of the negative cards. This can be done in 2 ways:

   (a) by using certain positive cards. For instance, "you are severely anaemic" can be cancelled by "severe anaemia corrected" or "blood transfusion available". Each situation must be discussed by all the players who must agree that it is possible for a negative card to be cancelled by a player.

   (b) by landing on certain squares on the board. For instance, if a player lands on "maternity waiting home" they may pick up one "safety pass". If they land on "hospital" they may cancel one of their negative cards. They must act as soon as they land on one of these squares and may not wait until later or change their mind about which card they will cancel.

9. When all players have either achieved Safe Motherhood or reached Maternal Death, they must then copy down what is written on all the cards they are holding. (This includes writing down which cards have been cancelled and why they were cancelled).

WRITING THE STORY

After the game each player should write down her/his own story or profile, according to what happened to them during the game. The stories will be shared with the rest of the group during a tutorial.

If the player achieved Safe Motherhood, the story should be written as if by the woman in the game.

If the player held a Maternal Death card, the story should be written as if by a relative or friend.

Using the information on all the cards they held during the game, each player should write a profile of the Mrs X in the game giving her a name.

Each player should begin as follows:

"I/she (name) lived in (______)." Then, for example, "I/she was the wife of a poor agricultural labourer. The village was 80 km from the nearest health facility. My/her pregnancy was complicated by iron deficiency anaemia and I/she already suffered with a parasitic infection – malaria …".

Each player must include all the facts on the cards they hold at the end of the game. Other information may be added to make the story complete providing they make sense and do not contradict any facts given on the cards. The facts may be challenged by other players if they do not make sense (e.g. if a player states that her anaemia was corrected by blood transfusion but he/she held a card "Health centre has no facility for blood transfusion" which he/she was not able to cancel).

TUTORIAL

How to lead the tutorial.

1. *Ask each student in turn to tell their story giving their profile of Mrs X. Encourage the rest of the group to listen, showing empathy and understanding. Some students may remember distressing personal experiences. Be ready to support them.*

2. *Discuss each story and profile respectfully. Try to give students credit for some part they have done well. Remember how important it is to provide encouragement.*

3. *Discuss what would help to promote safe motherhood in the community.*

Note: Students should keep their cards from the learning game for use in the next session.

SUMMARY AND FOLLOW-UP

Write down the following questions on the blackboard.

1. *Which of the problems shown in the stories/drama could have been prevented by community-based midwifery care?*

2. *What actions are needed to ensure that safe motherhood is possible in ____________ community?*

Actions depend on decisions. For example, decisions may include:

- *"We must speak with community leaders in ____________ about setting up maternity waiting homes/family planning/ antenatal clinics, etc."*

- *"We must discuss with elderly women in _______ community how the diet of pregnant women can be improved, and how they can be relieved of heavy physical work during pregnancy, and in the postpartum period."*
- *"We must approach the hospital management to discuss how we can provide screening tests/agree upon a referral system for high risk cases from _______community, etc.".*

5 THE PLACE AND VALUE OF WOMEN

SESSION 5
THE PLACE AND VALUE OF WOMEN

Aims

To enable students to gain insight into the place and value of women in their own society, and to become advocates for women in their care.

Objectives

On completion of Session 5, students will be able to:

- Identify factors which place women at greater risk of death than men in a similar situation.
- Discuss how social position may, directly or indirectly, affect the health of women and girls.
- Identify persons who can influence and initiate the changes considered necessary to raise the status of women and improve their health.
- Discuss how the midwives can become advocates for women in their care.

Plan

Discussion based on cards from the learning game in the previous session (1 hour).

Resources

Instructions for Group Work.

LIVES. Articles in this newsletter may provide useful background information
for this, and other sessions in the module. The newsletter is available free of charge from:
The Partnership for Safe Motherhood and Newborn Health, World Health Organization, 1211 Geneva, Switzerland, web site: www.safemotherhood.org, email: lives@safemotherhood.org

INTRODUCTION

This session is based on the cards from the learning game "Walking where Mrs X walked".

Students should work with a partner in order to discuss the cards they picked up during the learning game in Session 4. Give each pair a copy of the Instructions for Students, provided at the end of this session.

DISCUSSION

Feedback from each pair forms the basis for class discussion on the following:

- *the place of women in society*
- *the value of women in society*
- *the problems that exist*
- *how these can influence safe motherhood*
- *what must happen in order to improve the place and value of women in your own society*
- *who can influence the situation and bring about change*
- *how the midwife can act as an "advocate" for the woman because the woman needs her.*

Make sure that students understand how midwives can support women, because they can provide the link between the woman and the health care system.

Discuss:

- *the meaning of the word "midwife" (English literal translation is "with woman"), and*
- *the meaning of the word used to describe the midwife in your national or local language.*

Ask the students:

"Have you ever acted as an advocate or spokesperson for a woman in your care?"

If they answer yes, ask

- *how?*
- *when?*
- *where?*

- *why?*
- *how did it benefit the woman?*
- *was it a positive experience for the student?*

Concentrate on the action necessary to prevent maternal death.

Summarize the discussion.

INSTRUCTIONS FOR GROUP WORK

Look at the cards of the game "Walking where Mrs X walked" and ask the following questions for each card:

1. Could this place the woman at risk of maternal death?
2. Could this condition/situation/factor have been caused, or made worse, because the person is a woman?
3. What must be done to reduce the risks for women in this situation?

Example:

The card reads, "You suffer with malnutrition".

Possible answer:

1. Malnutrition can cause anaemia which will place the woman at risk of postpartum haemorrhage (PPH) and infection.
2. Yes, malnutrition would have been worse for a woman in our community because women and girls always eat last. They do not have the same opportunity as men to eat nourishing foods.
3. a. We need to discuss this custom with, for example:
    - community leaders
    - religious leaders
    - older women
    - TBAs.

   b. We need to help families and community members understand the importance of nourishing food for girls and women.

   c. We need to provide information and practical help about sources of good food which the family can afford.

6 ADVANCING SAFE MOTHERHOOD THROUGH HUMAN RIGHTS

SESSION 6
ADVANCING SAFE MOTHERHOOD THROUGH HUMAN RIGHTS

Aims

- To enable students to understand the importance of human rights related to protecting, respecting, and fulfilling women's rights to safe motherhood.

Objectives

On completion of Session 6, students will be able to:

- Describe the human rights that are relevant to safe motherhood.
- Explain the actions that governments need to take to promote safe motherhood as a human right.
- Describe how midwives could become involved in human rights approaches to safe motherhood.

Plan

Modified lecture (1 hour).
Group work, feedback, discussion (1½ hours).

Resources

Reduction of maternal mortality: a joint WHO/UNFPA/UNICEF/World Bank statement. Geneva, World Health Organization, 1999.

Advancing safe motherhood through human rights. Geneva, World Health Organization, 2001 (WHO/RHR/01.05).

INTRODUCTION

Begin the session by presenting the following general information about human rights.

Many of the human rights currently acknowledged in national constitutions, and in regional and international human rights treaties, can be applied to safe motherhood. These are based on the 1948 Universal Declaration of Human Rights.[1] Although the Universal Declaration itself was not proposed as a legally enforceable instrument, it has gained legal acceptance and can be legally enforced through a series of international human rights conventions (also called treaties, covenants or charters). The main recent human rights treaty concerning woman's rights is the Convention on the Elimination of All Forms of Discrimination Against Women[2] which expresses the values implicit in the Universal Declaration of Human Rights.

HUMAN RIGHTS RELEVANT TO SAFE MOTHERHOOD

Present and discuss the following information with students. As you do so, ask them to consider each of the four categories in the context of their own lives, communities and places of work.

The human rights that are relevant to safe motherhood can be grouped into the following four main categories:

1. **Rights relating to life, liberty and security of the person**, which require that governments ensure that women have access to appropriate health care during pregnancy and childbirth and that they have the right to decide whether, when, and how often they become pregnant. This means that governments must address factors within economic, legal, social, and health systems that do not allow women these fundamental rights.

Ask students the following questions. If they answer ***no*** *to the questions, ask them how the situation can be changed.*

Do women in the communities where they live and work have access to appropriate health care during pregnancy and childbirth?

Do women have the right to decide whether, when, and how often they become pregnant?

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[1] Universal Declaration of Human Rights. New York, United Nations, 1948 (United Nations General Assembly Resolution A/RES/217 A (III)).

[2] Convention on the Elimination of All Forms of Discrimination against Women. New York, United Nations, 1979 (United Nations General Assembly Resolution A/RES/4/180).

2. **Rights relating to the foundation of families and of family life**, which require that governments provide access to health and other services that women need to have a family and enjoy family life.

*Ask students the following question. If they answer **no**, ask them how the situation can be changed.*

Do women in the communities they live and work in have access to health care and other services they need, to have a healthy family and enjoy family life?

3. **Rights relating to health care and the benefits of scientific progress, including health information and education**, which requires that governments provide access to good quality sexual and reproductive health care, including appropriate referral systems. Primary health care can serve as the means of ensuring safe motherhood, regardless of a particular country's level of economic development. At the core of these rights is the information about various reproductive health issues, including family planning, abortion, and sex education.

*Ask students the following questions. If they answer **no**, ask them how the situation can be changed.*

Is there information and education about reproductive health issues such as family planning, abortion and sexuality provided in the communities where they live and work?

Do adolescents in particular have access to this information and education?

4. **Rights relating to equality and nondiscrimination**, which require that governments provide access to services such as education and health care in the absence of discrimination relating to sex, marital status, age, and socioeconomic status. Discriminatory policies include those that (a) require women to have the consent of their husbands to use certain health care services, (b) require parental authorization that impacts on girls but not on boys, and (c) include laws that criminalize medical interventions that only women need. Governments violate their obligations when (a) they do not implement laws that protect the interests of women and (b) they do not allocate health resources to meet the needs of women for safe pregnancy and childbirth. At the core of these rights is the right to be treated at all times with dignity and respect, including during health treatments, receiving care and for women especially, during pregnancy and childbirth.

*Ask students the following questions. If they answer **no**, ask them how the situation can be changed.*

Are women in the communities where they live and work, required to have the consent of their husband to access family planning services, for example?

Do adolescent girls have access to family planning services without parental consent?

PROMOTING SAFE MOTHERHOOD AS A HUMAN RIGHT

Present and discuss the following information with students. Before beginning the session, however, make sure that you have answers to the questions below. For example, before the session find out whether the government has taken any action with respect to reforming laws, implementing laws and applying humans rights with respect to promoting safe motherhood.

The actions that governments need to take to promote safe motherhood as a human right can be grouped as follows:

- **Reform laws** that prevent women (a) from reaching the best possible levels of health and nutrition necessary for safe pregnancy and childbirth, and (b) from accessing reproductive health information and services. Examples include laws that require women needing health care to obtain authorization from their husbands or other family members to access health services

In relation to reforming laws, ask students the following questions and write down their answers on the blackboard or on a flipchart:

What laws have been reformed?

What laws need to be reformed?

- **Implement laws** that support women's rights to good health and nutrition and protect their health interests. Examples include laws that prohibit child marriage, female genital mutilation, rape, and sexual abuse. It is essential that laws be implemented that encourage childbearing to begin at an appropriate age. Examples include laws that support the education of girls, set a minimum age for marriage, and ensure that women have access to the health care they need during pregnancy and childbirth.

In relation to implementing laws, ask students the following questions and write down their answers on the blackboard or on a flipchart.

What laws have been implemented that support women's rights to good health and nutrition, and support their health interests?

Have laws been implemented that prohibit child marriage, female genital mutilation, rape and sexual abuse?

Have laws been implemented that support the education of girls, set a minimum age for marriage, and ensure that women have access to the health care they need during pregnancy and childbirth?

- **Apply human rights** in national legislation and policy to advance safe motherhood.

Ask students the following question and write down their responses on the blackboard or on a flipchart.

How have human rights been applied to national legislation and policy to advance safe motherhood?

HUMAN RIGHTS APPROACHES TO SAFE MOTHERHOOD

Now present the following information and ask students to consider how they might apply the suggested approaches to their own lives, communities and places of work.

Health care providers who are aware of their own human rights and those of their patients/clients, can provide services in ways that protect and promote these rights. A human rights approach enables health care providers, as well as administrators, to:

- **work respectfully together** with colleagues, in their own and other fields, to determine how best to advance safe motherhood through human rights
- **develop understanding** of how laws, policies and practices accommodate the rights of women to safe motherhood
- **discover which human rights** might be more easily achieved with respect to advancing safe motherhood
- **encourage governments** to work towards respecting, protecting and fulfilling human rights relevant to safe motherhood

GROUP WORK

The purpose in this group activity is to provide students with an opportunity to discuss and decide how they can incorporate a human rights approach in their lives and work.

Divide students into small groups and review with them the Instructions for Group Work, included at the end of the session. Make sure that students understand what is expected of them. Allow one hour for each group to complete the activity. Spend some time with each group to help facilitate. Allow 5–10 minutes for each group to provide feedback on the outcome of the group activity.

Feedback and discussion

As the groups report back, consider how realistic their ideas and suggestions are. Provide guidance where necessary.

Summarize the session and answer any remaining questions.

INSTRUCTIONS FOR GROUP WORK

This activity is designed to provide you with an opportunity to discuss and decide how to incorporate a human rights approach in your life and work

Discuss and decide how you will:

- **work respectfully together** with colleagues in your own field and with those in other fields, in order to determine how best to advance safe motherhood through human rights.
- **develop an understanding** of how laws, policies and practices accommodate the rights of women to safe motherhood.
- **discover which human rights** might be more easily achieved with respect to advancing safe motherhood.
- **encourage governments** to work towards respecting, protecting and fulfilling human rights relevant to safe motherhood.

7 BELIEFS, TRADITIONS AND TABOOS

SESSION 7
BELIEFS, TRADITIONS AND TABOOS

Aims

- To enable students to understand how the social role and status of women, determine their overall health and well-being, and how traditional beliefs, practices and taboos affect women's health during the prenatal, childbirth and postnatal period.

Objectives

On completion of Session 7, students will be able to:

- Identify the roles and responsibilities of women within the community and write up a woman's "job description".
- Identify traditional beliefs, practices and taboos which are associated with the prenatal, childbirth and postnatal period.
- Identify and describe traditional beliefs, practices and taboos which specifically relate to postpartum haemorrhage, puerperal sepsis, obstructed labour, eclampsia and abortion.
- Explain how beliefs, practices and taboos may influence safe motherhood.
- Prepare an action plan which will begin to tackle important issues with regard to traditional beliefs, practices and taboos.

Plan

Briefing (½ hour).
Community visit (1 day).
Discussion (2 hours).

Resources

Instructions for Students.

INTRODUCTION

In preparation for the community visit in this session, review the information related to community visits, included at the beginning of the introduction to Session 2. In addition, consider the following points.

1. *Make sure students understand that the purpose of the visit is:*
   - *to discover what women's roles and responsibilities are in the community*
   - *to identify what are traditional beliefs, practices and taboos related to the prenatal, childbirth and postnatal periods in the community, especially those that relate to postpartum haemorrhage, puerperal sepsis, obstructed labour, eclampsia and abortion*
   - *to discover what TBA's, mothers-in-law, community leaders and religious leaders know about traditional beliefs, practices and taboos related to the prenatal, childbirth and postnatal periods.*

2. *During the briefing, divide the students into pairs and into Group A and Group B. Explain that those in Group A will interview women in the community in order to gather information on women's roles and responsibilities and on traditional beliefs, practices and taboos related to pregnancy and childbirth. Most women interviewed should have personal experience of pregnancy and childbirth.*

   The other pairs in Group B will interview TBAs, leaders of religious groups, women's groups and community groups, school teachers, adolescent boys and girls, and community health workers, in order to gather information on traditional beliefs, practices and taboos related to pregnancy and childbirth, including sexual and gender-based violence and its effect on pregnancy and childbirth.

3. *Before the community visit, give the students the two sets of instructions provided at the end of this session.*

4. *After the community visit, give students time to prepare their women's job description or their presentation on beliefs, practices and taboos. Then take discussion.*

PRESENTATION AND DISCUSSION AFTER THE COMMUNITY VISIT

Tradition and taboos

In their presentation, each group should:

1. *Share the information obtained in the community about traditional beliefs, practices and taboos.*

2. *Discuss how midwives could help communities reinforce the practices beneficial to safe motherhood.*

3. *Discuss how midwives could help communities change the practices that are harmful to safe motherhood.*

Begin the discussion by classifying each of the practices and taboos described by students as:

- *beneficial*
- *neutral (i.e. not making any difference to safety or health)*
- *uncertain (effects not known/understood), or*
- *harmful.*

Below is an example of the analysis of traditional practices and taboos.

Practice	Beneficial	Neutral	Uncertain	Harmful
Avoid eating eggs				+
Avoid eating food left over from the previous day	+			
Packing the vagina with cow dung				+
Sit with legs crossed		+		
Herbal remedy for controlling haemorrhage, treating or preventing fever or other condition*			+	

* *Discussion here should reveal what is known about the pharmaceutical properties of the remedy, and its possible benefits or hazards.*

Women's role in society

Each pair in group A should present some aspects of the woman's job description. The teacher then compiles a "typical" woman's job description on the blackboard, using the students' input.

Begin the discussion by asking how the elements of the job description may have a negative impact on the woman's health.

ACTION PLAN

Based on the information obtained during the community visits, agree an action plan with students aimed at answering the following questions:

- *what can we do to help women, families and other community members change traditional beliefs, practices and taboos that are harmful to safe motherhood?*
- *what can we do to help women, families and other community members reinforce traditional beliefs, practices and taboos that are beneficial to safe motherhood?*
- *what can we do to help women, families and other community members improve the situation of women?*

Identify with the students:

- *the best approach to changing the situation in your particular community*
- *key people who influence attitudes and beliefs.*

Ask if there are any questions.

Summarize.

This exercise was designed to teach students about the impact of social attitudes and traditional beliefs on women's health. However, the students should take the opportunity, during future visits, to follow up on their action plan in relation to the community they visited.

INSTRUCTIONS FOR STUDENTS IN GROUPS A

1. Make a visit to a woman in her own home. If possible, it would be good to visit a woman:
   - with whom you already have some contract, and
   - who spends most of her time as a "housewife".
2. Discuss with the woman her role and responsibilities, collecting information on:
   - duties and responsibilities
   - hours of work
   - pay or reward
   - who is she accountable to (e.g. husband, mother-in-law)
   - who is accountable to her (e.g. children, husband)
   - her level of education
   - arrangements for when she is pregnant or breastfeeding
   - arrangements for when she is sick
   - arrangements for old age
   - how she gains credit and status (e.g. by having children, sons)
   - how she gains "promotion" in the household (e.g. when sons bring their wives into the home)
   - any rules and regulations she has to obey
   - consequences of not doing her job well
   - to whom she can appeal in a situation which she considers is unfair (village elders, no one)
   - any other facts considered important.
3. Discuss with the woman her beliefs and practices that relate to pregnancy, childbirth and the postnatal period. Make sure you cover the following points:
   - food intake during pregnancy
   - activity during pregnancy
   - local remedies to problems arising during pregnancy, such as swelling, vaginal bleeding, fever, pain
   - how delivery is conducted (instruments used, cleanliness/hygiene, cord care, delivery of placenta)
   - who conducts the delivery and where
   - how complications are managed (prolonged labour, excessive vaginal bleeding, fits, fever, premature rupture of the membranes, retained placenta)
   - who makes decisions at the household level about when and where to seek care if a complication arises
   - postnatal care of woman and baby (nutrition of woman, breastfeeding, hygiene, cord care, who looks after her)
   - family planning (is advice available, and how soon after birth)
   - who makes decisions at the household level about family planning.

INSTRUCTIONS FOR STUDENTS IN GROUPS B

Make a visit to TBAs, mothers-in-law, community leaders, religious leaders, leaders of women's groups, school teachers, adolescent boys and girls, and community health workers. Ask questions about traditional beliefs, practices and taboos related to pregnancy, childbirth and the postnatal period.

Make sure you cover the following points:

- food intake during pregnancy
- activity during pregnancy
- sexual and gender-based violence affecting pregnancy and childbirth
- local remedies to problems arising during pregnancy, such as swelling, vaginal bleeding fever, pain
- how delivery is conducted (instruments used, cleanliness/hygiene, cord care, delivery of placenta)
- who conducts the delivery and where
- how complications are managed (prolonged labour, excessive vaginal bleeding, fits, fever, premature rupture of the membranes, retained placenta)
- who makes decisions at the household level about when and where to seek care if a complication arises
- postnatal care of woman and baby (nutrition of woman, breastfeeding, hygiene, cord care, who is looking after the woman)
- family planning (is advice available, and how soon after birth)
- who takes decisions at the household level about family planning.

8 RECOGNIZING, REFERRING AND REDUCING RISK

SESSION 8
RECOGNIZING, REFERRING AND REDUCING RISK

Aims

- To enable students to understand that some factors which place a woman at risk during pregnancy and childbirth can often be reduced.
- To enable students to understand that they have the ability to promote safe motherhood by recognizing risk and implementing appropriate preventive care.
- To enable students to empathize with women and their families who are placed at risk, and are unable to receive the care that is their right.
- To motivate students to do everything they can to reduce risks through effective midwifery care.

Objectives

On completion of Session 8, students will be able to:

- Define “risk” and “risk factor”, giving examples of each.
- Identify the problems that can occur when specific risk factors exist, giving reasons.
- Describe the action necessary to promote safe motherhood and prevent death from the risk factors identified.
- Discuss how some women are placed at an unfair disadvantage in life, and how the midwife can help to reduce the risks women face.
- Identify factors which interfere with the efficient function of existing systems of care and referral systems, and describe how these may be improved.

Plan

Modified lecture (45 minutes).
Group work (2 hours).
Community visit, including peer assessment (½ day).
Tutorial (1 hour per group).

Resources

Instructions for Students: risk analysis.
Worksheet.
Instructions for Students: peer assessment.

INTRODUCTION

In preparation for the community visit in this session, review the information related to community visits included at the beginning of the introduction to Session 2. In addition, consider the "Instructions for Students", and the example sheets for risk factors, found at the end of the session.

This session looks at risk factors. Risks may not always be avoided, but the dangers associated with risks can usually be reduced.

Risks may be reduced by:

1. Assessing the woman's condition during pregnancy and childbirth.

2. Developing a birth plan with the woman and her family, including a place for the birth and birth attendant, based on the woman's individual needs and actions to be taken if a problem (complication) arises during pregnancy or birth.

3. Providing information and advice to the woman and her family about the danger signs during pregnancy and childbirth, and what to do if these occur.

4. Recognizing complications early and intervening quickly, including emergency care and referral when necessary. The woman should be encouraged to plan how she will get to an appropriate facility for treatment if a problem occurs unexpectedly.

5. Providing the woman with advice and care related to keeping healthy during pregnancy and childbirth.

REFLECTING ON RISK

General discussion

Discuss the meaning of risk, and risk factors.

(a) ***What is risk****?*

Ask students to form discussion groups in order to agree a definition of "risk".

Then have the class as a whole agree on a definition. Write down the definition on the blackboard, flipchart or overhead transparency.

Compare the definition of "risk" agreed by students with the following definition:

Risk is the probability that an event will occur, e.g. that an individual will become ill or die within a stated period of time.

(b) ***What is a risk factor?***

Have students work through the same process used for discussing and defining "risk".

Compare the definition of "risk factor" agreed by students with the following definition:

A risk factor is a factor which makes a condition more likely to happen or more dangerous.

It is important that students understand the following:

"Risk factors" should not be used to predict complications during pregnancy and childbirth. The system of risk categorization, or the "risk approach", used for pregnant women in the past is not useful because many women categorized as "high risk" do not experience a complication, while many woman categorized as "low risk" do. All pregnant woman should therefore be considered "at risk" of developing a complication.

Detailed discussion

Lead the students into a more detailed discussion.

Ask questions in order to promote discussion.

Help students to think about real life situations that childbearing women meet every day.

The following questions may help to lead the discussion.

1. *Q: What might a woman feel whose life and health are at risk during pregnancy and childbirth?*

   A: Disappointment, frustration, fear, helplessness because she cannot change or influence the situation.

2. *Q: What might a woman feel who is able to get the health care she needs during pregnancy and childbirth?*

   A: Relief, encouragement, safety, hope.

3. *Q: Do some people meet more difficulties in life than others?*

   A: Yes.

4. *Q: Does this seem unfair?*

   A: Yes! Life can seem unfair. Some women

   - *are born into very poor families*
   - *do not have enough to eat*
   - *do not grow properly*
   - *do not have immunizations, and*
   - *have no access to health care.*

   In fact, they are always at a disadvantage.

5. *Q: Does a woman have any control over the risks she faces?*

   A: Women have little control over the risks they face. Sometimes a risk is present but does not actually kill or injure the woman. But this is a matter of chance. Just like the snake hidden in the grass, it may not harm us, but while it is there we are in great danger and we would be very foolish to ignore it.

6. *Q: Do women have any choice about health care accessible to them?*

   A: No, in many cases access to health care is not within the choice of the woman.

7. *Q: How would you feel if you went to a health facility that did not function properly?*

   A: Disappointed, frustrated, annoyed, helpless.

8. *Q: Do we have the ability to remove risks and build and repair health services/facilities?*

   A: Yes, absolutely.

We can:

Assess the woman's condition during pregnancy and childbirth.

Develop a birth plan with the woman and her family, including a place for the birth and birth attendant, based on the woman's individual needs.

Provide information and advice to the woman and her family about the danger signs to look out for during pregnancy and childbirth, what to do if these occur, where to go, and advice on provisional arrangements for transport to a facility if any problem occurs. Arranging transport at the last minute may mean that transport will be unavailable.

Recognize complications early and intervene quickly, including emergency care and referral when necessary.

Provide advice and care related to keeping healthy during pregnancy and childbirth.

GROUP WORK

Divide the students into small groups and give them the Instructions for Students and the Worksheet for risk analysis. Write down on the blackboard the risk factors listed on the example sheet, and let the students copy them down. Divide the risk factors among the groups to save time.

Instruct each pair of students to work on the risk analysis following the way it is set out in the four columns on the Worksheet.

Work through one example with the students.

After the students have finished their group work, allow each group to report back. Use the example sheet as a guide.

REDUCING THE RISKS

After analysing the risks, the students should be ready to take action in order to help reduce the risks.

Students should work in pairs. Each pair should select:

1. *A risk factor.*
2. *A community where that risk factor is known to exist.*
3. *An individual or group of people with whom to work (e.g. teenagers, pregnant women, older women, mothers-in-law, TBAs, health workers, community leaders).*
4. *A method which they will use, such as:*
    - *discussion*
    - *drama*
    - *song*
    - *dance.*

Alternatively, the teacher may decide to arrange the same activity for all students. For example, they could:

- *assess a woman's needs*
- *develop a birth plan with her, or*
- *review referral systems from several communities, or*
- *organize information sessions to help prevent a particular problem.*

On the other hand, the teacher may decide to allow students complete freedom of choice in the selection of the risk and the way in which they will address it.

Next, ask students to write down and submit an action plan (this will enable you to give guidance and advice).

Arrange for community visits so students can implement their plans.

Instruct students to undertake peer assessment while they are putting their plan into action. Give students the instructions on peer assessment included at the end of the session.

Finally, arrange for tutorial groups in order to discuss and evaluate the experience. (Tutorial groups of about 8 students, i.e. 4 pairs, are recommended. A suggested outline for the tutorials is given below).

Tutorial

Encourage discussion about:

1. **Why** certain factors place women at risk.

2. **How** risk factors can be reduced.

3. **What** they did in the community with respect to reducing risk factors.

4. **How** effective they think they were.

6. **What** they have learned through the experience, and what they learned from each other through peer assessment.

7. **What** needs to be done next in order to further reduce risk factors, e.g.

   - Women in village "A" understand the need for good diet and iron supplementation but now they need to learn how to produce nourishing food at a price they can afford, or
   - A supply of iron tablets should be issued to every health facility for distribution.

Example sheet for risk factors:

Risk Factor	Complications caused by risk to mother (** = special risk to baby)	Risk is due to	Action necessary to prevent death and promote safe motherhood
Age less than 18 years	Unsafe abortion	Unwanted pregnancy	Education, counselling and family planning services
	Eclampsia**	Unknown cause Research shows increased incidence	Careful monitoring
	Obstructed labour**	Small pelvis	Advise woman to plan for delivery in a health facilty. Appropriate management, use of partograph, caesarean section if necessary. Use of maternity waiting home
		Early age of marriage	Discuss custom with women, families, community leaders
Woman measures less than 145 cm in height	Obstructed labour**	Cephalopelvic disproportion	Advise woman to plan for delivery in a health facility. Appropriate management: use of partograph, caesarean section if necessary. Use of maternity waiting home
Not immunized against tetanus	Puerperal sepsis	Infection with clostridium tetani - genital infection leading to poisoning of the nervous system. Unhygienic traditional practices	Ensure full immunization. Avoid prolonged and obstructed labour, anaemia, unnecessary intervention - especially contamination with earth/cow dung - educate TBAs, clean, safe delivery
Previous or existing medical problems:			
(a) TB	Infertility, later spontaneous abortion, intrauterine fetal death (IUFD) with associated risk of coagulopathy (clotting failure) following macerated stillbirth	Poor maternal general health often includes anaemia. Clotting failure triggered by release of thrombo-plastin from dead fetal tissues	Treat existing disease, improve diet, hygiene and associated socioeconomic deprivation, e.g. overcrowded housing and sleeping conditions
(b) anaemia	Spontaneous abortion, preterm labour,** IUFD, (see above), PPH, puerperal sepsis	Poor maternal general health	Consider cause and treat e.g. malnutrition, malaria, gynaecological. Consider socioeconomic problems. Advice, education and help
(c) malaria	Anaemia including folic acid deficiency. Spontaneous abortion, preterm birth,** IUFD (see above), PPH, puerperal sepsis	Rapid destruction of red blood cells by parasites. Hyperpyrexia	Ensure malaria prophylaxis. Treat any existing malaria and anaemia
(d) hypertension	Eclampsia,** superimposed on essential hypertension	Hyptertension worsened by pregnancy	Control blood pressure before pregnancy; monitor and control carefully throughout pregnancy, labour and the postnatal period
(e) HIV/AIDS	Anemia, malnutrition, infections **mother to child transmission (MTCT), LBW, fetal loss, abortion, preterm	High viral load increases risk for MCTC mode of delivery, feeding practices	HIV screening, counselling on self care Antiretroviral treatment. Advice and planning for birth and infant feeding

Example sheet for risk factors:

Risk Factor	Complications caused by risk to mother (** = special risk to baby)	Risk is due to	Action necessary to prevent death and promote safe motherhood
Rhesus negative mother	Rhesus incompatibility if the fetus is Rhesus positive and fetal and maternal blood mix.** No particular risks for the mother, apart from interventions such as preterm induction of labour. Causes haemolytic disease in the newborn which can lead to severe anaemia and jaundice at birth or IUFD	Isoimmunization leading to haemolysis of fetal red blood cells	Anti-D immunization for mother. Ensure future pregnancies are supervised in a health facility where expert monitoring in pregnancy and special neonatal care are available. Advise on family planning after first affected baby and consider sterilization when family complete.
Previous gynaecological surgery to:			
(a) cervix	Spontaneous abortion, preterm birth**	Cervical incompetence	Refer to health facility for cervical cerclage and subsequent care in pregnancy, including removal of the cervical stitch before term
(b) uterus	Ruptured uterus with shock and haemorrhage**	Obstructed labour or weakened scar tissue	If hysterectomy not performed following rupture, avoid pregnancy within 2 years of repair (FP). Book for care in higher level health facility for any future pregnancies
(c) external genitalia: previous trauma including third degree tear or female genital mutilation	Prolonged and obstructed labour,** further trauma to vulva and/or perineum	Fibrosed scar tissue	Examination and discussion of traditional practices with community leaders, legislation to protect women from unnecessary mutilation. Skilled management of labour and delivery (partograph). Episiotomy, if necessary.
History of disease or accident to bony penvis	Prolonged or obstructed labour**	Cephalopelvic disproportion - misshapen pelvis	Referral to health facility for early assessment and trial of labour or elective caesarean section
Habit of:			
(a) taking alcohol in excess	Impairing all body systems, addiction, fetal alcohol syndrome**	Toxic effects of alcohol on mother and fetus	Education, counselling, support
(b) smoking	Cardiovascular and malignant disease, intrauterine growth retardation (IUGRI)**	Toxic effects of tobacco on mother and fetus	As above

Example sheet for risk factors:

Risk Factor	Complications caused by risk to mother (** = special risk to baby)	Risk is due to	Action necessary to prevent death and promote safe motherhood
Gravida 5 or more (high parity	Prolonged or obstructed labour, PPH, sepsis (if anaemic)	Lax uterine and abdominal muscles, risk of anaemia	Family planning services. Treatment of anaemia and careful monitoring in pregnancy and labour, including use of partograph; active management of third stage. Prepare equipment for intravenous infusion
Interval of less than 2 years since last birth	High parity (see above), anaemia	Insufficient time to recover since last pregnancy and risk of anaemia increased	Family planning services accessible and acceptable. Effective treatment of anaemia.
Previous prolonged or obstructed labour, difficult delivery or caesarean section	May recur	For same reason e.g. cephalopelvic disproportion	Early antenatal assessment and booking in a higher level health facility. Trial of labour using partograph or elective caesarean section
Previous PPH and/or retained placenta	Often recurs	Atonic uterus Tendency for adherent placenta	Advise woman to plan for birth at a health facility; correct anaemia; avoid prolonged labour; active management of third stage, set up IV infusion, have blood donors available
Vaginal infection	Puerperal sepsis Premature rupture of membranes**	Causative organism	Treat during pregnancy and in postanatal period, if necessary
Urinary tract infection	Preterm labour**	Infection	Midstream specimen of urine for culture and sensitivities. Give appropriate antibiotic and copious oral fluids
Syphilis	Spontaneous abortion Preterm birth, IUGR** Congenital syphilis**	Infection	Prenatal screening; treat in early pregnancy with penicillin to prevent adverse effects on fetus
Malpresentation at term	Prolonged or obstructed labour**	Cephalopelvic disproportion if brow, posterior face or shoulder presentation	Refer early to higher level health facility for assessment and operative delivery, if necessary

Example sheet for risk factors:

Risk Factor	Complications caused by risk to mother (** = special risk to baby)	Risk is due to	Action necessary to prevent death and promote safe motherhood
Uterus large for dates and/or multiple pregnancy diagnosed	Prolonged and obstructed labour** PPH	Multiple pregnancy, large baby or polyhydramnios cephalopelvic disproportion, overstretched uterine muscle	Refer to higher level health facility for assessment and possible complicated delivery. Active management of third stage to reduce blood loss
High fever	Labour**	Possibly malaria	Investigate and treat accordingly
Lack of fetal movements	Compromised fetus; risk of IUGR and IUFD. Coagulopathy if macerated fetus retained in utero for 3 or 4 weeks or more. PPH	Lack of oxygen in utero. Coagulopathy	Refer immediately to higher level health facility with special care baby and facilities for fetal assessment. If IUGR or IUFD, induction of labour and expert neonatal care
Unwanted pregnancy	Unsafe abortion Puerperural sepsis	Woman desperate to terminate pregnancy	Make family planning advice and services available, accessible and acceptable. Promote use of services. Examine FP policies
	Haemorrhage	Infection	If septic abortion, give IV antibiotics and refer urgently to higher level health facility. Give oxytocic drugs and IVI for control of bleeding

INSTRUCTIONS FOR STUDENTS

Risk Analysis:

1. You should have received a worksheet for risk analysis from your teacher.
2. Write down the risk factors in the first column. (Copy them from the blackboard).
3. Decide on the complications which this risk would cause. These complications may threaten either the life or health of mother and/or baby. Write these down in the second column.
4. Explain the reason(s) or cause(s) of the risk. Write this down in the third column.
5. Suggest the action which would prevent death or morbidity and promote safe motherhood. Write this down in the fourth column.

WORKSHEET

Risk Factor	Complications caused by risk to mother (** = special risk to baby)	Risk is due to	Action necessary to prevent death and promote safe motherhood

INSTRUCTIONS FOR STUDENTS

Peer assessment:

Peer assessment is a method of helping each other. You have probably done this already in an informal way. You may study with a friend, and then test each other to see what you have learned.

Please work with your partner. You have already developed an action plan. Your teacher will have given you help and advice where needed. Now put your plan into action. While your partner is working, go along with her/him. Help your partner and take note of the way in which she/he is working.

1. **Make a list of the good things she/he does, e.g**.
   - her/his approach is kind
   - her/his record keeping is clear
   - the way she/he shares information is helpful.

2. **Make a list of the areas where she/he needs to improve, e.g.**
   - she/he did not spend enough time with a woman who was anxious
   - she/he seemed to be “talking down” to the TBAs, rather than regarding them as individuals of equal value
   - her/his visual aids were not quite large enough to be seen by the teenagers in a large classroom.

3. **Discuss together**:
   - what you have learned through the experience
   - what your next action should be. Remember that you should **never** carry out an exercise only for your own learning! It must always benefit the client. Women and their families must be sure you will keep any promises you made and continue any care you have started
   - what you will share with your teacher and other students in the tutorial.

9 DELAY MEANS DEATH

SESSION 9
DELAY MEANS DEATH

Aims

- To enable students to understand that delay can occur in many different places and for different reasons:
  - that delay can cause death or result in morbidity
  - that delay can be prevented, and
  - that addressing this issue will help reduce maternal deaths and promote safe motherhood.

Objectives

On completion of Session 9, students will be able to:

- Describe the three phases of delay which can occur in the process of seeking medical/midwifery care.
- Identify the factors which influence delay.
- Identify the actions that should be taken to prevent delay.

Plan

Lecture, story telling and/or role play (1 hour).
Group work (1 hour).

Resources

Instructions for students.

INTRODUCTION

It is extremely important for students to realize that delay in a woman and/or her newborn receiving appropriate care if a complication occurs either in pregnancy, during birth or the postnatal period is dangerous. Introduce the subject giving practical examples from your own experience, whenever possible.

Delay in receiving appropriate and adequate care can occur at different times and for different reasons. Whenever there is delay and for whatever reason, delay is dangerous because delay can cause death.

Consider whether delay could happen in your community. If so, decide what can be done about it in order to:

- *avoid delay*
- *prevent death*
- *promote safe motherhood.*

THE PHASES OF DELAY

Delay in receiving care has been described in three phases (sometimes called the three delays):

- Phase 1. Decision to seek care
- Phase 2. Reaching the medical facility
- Phase 3. Receiving adequate treatment.

Phase 1. Delay in decision to seek care

This is affected by:

- Economic status
- Educational status
- Women's status
- Illness characteristics.

Suggested questions that will help during discussion of important issues:

- Do people use health care facilities as often as they should?
- Who uses the health facilities most? Why?
- What prevents utilization?
- Who makes the decision to seek care?
- Does this sometimes cause delay?
- Does the status of women in the community prevent them from making decisions?

Phase 2. Delay in reaching the medical facility

This is affected by:

- Distance
- Transport
- Roads
- Cost.

The following will help during discussion of the important issues in Phase 2:

- How far do women have to travel to seek care?
- How do they get there?
- What is the cost?
- Who pays?

Phase 3. Delay in receiving adequate treatment

The following questions will help during discussion of this phase:

- What quality of care can women expect at health facilities?
- Is there always the right kind of help available?

The right kind of help means:

- Skilled staff
- Drugs
- Sterile equipment, and
- Blood for transfusion.

What other right kind of help can students suggest?

How phases of delay combine

Recall the story of Mrs X.

What were the phases of delay for her receiving treatment?

- There was delay in seeking care, because she did not realize she had a life threatening condition (placenta praevia)
- There was delay in reaching the hospital (she lived in a remote village and the journey took 4 hours)
- There was delay even when she reached hospital (it was 3 hours after admission before she had surgery).

Ask the students which of the following factors influenced delay in the treatment of Mrs X:

- Economic status
- Educational status
- Women's status

- Illness characteristics (she was undernourished, anaemic, had parasitic infestations)
- Distance
- Transport, roads
- Cost
- Quality of care.

All of these factors contributed to delay in the treatment of Mrs X.

THE STORY OF MRS Y

Share this true story of Mrs Y with the students.

Students may present this story through role play or story telling.

Why did Mrs Y die?

Mrs Y died while giving birth. It was her fifth delivery. She was not from a far off village but lived in the city itself. She set out on time to go to hospital. But, …

... by the time they had found a vehicle to go to the hospital,

... by the time they struggled to get her an admission card,

... by the time she was admitted,

... by the time her file was made up,

... by the time the midwife was called,

... by the time the midwife finished eating,

... by the time the midwife came,

... by the time the husband went and bought some gloves,

... by the time the midwife examined the woman,

... by the time the bleeding started,

... by the time the doctor was called,

... by the time the doctor could be found,

... by the time the ambulance went to find the doctor,

... by the time the doctor came,

... by the time the husband went to buy drugs, IV set, and drip,

... by the time the husband went out to look for blood bags all round the city,

... by the time the husband found one,

... by the time the husband begged the pharmacist to reduce the prices since he had already spent all his money on swabs, dressings, drugs and fluids,

... by the time the haematologist was called,

... by the time the haematologist came and took blood from the exhausted husband,

... by the time the day and night nurses changed duty,

... by the time the midwife came again,

... by the time the doctor was called,

... by the time the doctor could be found,

... by the time the doctor came,

... the woman died!

GROUP WORK

After the story telling and/or role play, divide the students into groups so that they may discuss the issues outlined in the Instructions for Students provided at the end of the session.

Feedback

During feedback, make sure the following issues are addressed.

1. *Factors influencing the delays could include:*

   - *transport*
   - *bureaucracy makes filling in forms and getting procedures right more important than the people who need help*
   - *procedures/routines (e.g. admission) are useful, but not when they get in the way of giving prompt attention*
   - *availability of staff (if on duty/on call, where are they, and how can they be contacted/come quickly)*
   - *lack of a sense of urgency (midwife/doctor/laboratory staff)*

- *lack of supplies/equipment (husband had to get these and could not afford them)*
- *laboratory services*
- *duty changing time.*

2. *Students may well conclude that Mrs Y could also have died in their local hospital from similar causes, and that delay would have been the main problem.*

3. *Encourage practical and realistic ideas. Use the blackboard or flipchart and make two columns as illustrated below, or divide into small groups and discuss.*

Write down the causes and actions which you all agree.

Cause of delay: e.g. admission procedure too long and complicated	**Action to prevent delay**: e.g. modify procedure for emergency admission
First delay:	
Second delay:	
Third delay:	

INSTRUCTIONS FOR STUDENTS

Why did Mrs Y die?

1. Identify the factors which influenced the delay in Mrs Y receiving the treatment she needed.
2. Which of these factors could have occurred here in our hospital/facility?
3. What action needs to be taken to prevent another Mrs Y from dying?

10 HIV/AIDS AND SAFE MOTHERHOOD

SESSION 10
HIV/AIDS AND SAFE MOTHERHOOD

Aims

- To provide students with an opportunity to understand HIV infection and AIDS, relevant to pregnancy and childbirth and to appreciate the role and responsibility of midwives in caring for mothers, babies and families affected by HIV/AIDS.

Objectives

On completion of Session 10, students will be able to:

- Explain the major sources of HIV infection.
- Describe the social and cultural factors that put women at risk of HIV infection.
- Explain the three-pronged approach to preventing mother-to-child transmission (MTCT) of HIV.
- Explain the risks of breastfeeding and replacement feeding and recommendations for practice.
- Describe how HIV can be transmitted in the workplace and how to create a safe work environment.

Plan

Modified lecture (1½ hours).
Group work, feedback and discussion (1½ hours).

Resources

Instructions for Group Work.

Fact sheets on HIV/AIDS for nurses and midwives. Geneva, World Health Organization, 2000.

HIV in pregnancy: a review. Geneva, World Health Organization, 1999 (WHO/CHS/RHR/99.15, and UNAIDS/00.35E).

Prevention of mother-to-child transmission of HIV: selection and use of nevirapine. Geneva, World Health Organization, 2001 (WHO/HIV-AIDS/2001.3, and WHO/RHR/01.21).

Prevention of Mother-to-Child Transmission of HIV (PMTCT) Generic training package, Geneva, HHS/CDC WHO, 2004.

Sexual and Reproductive Health & HIV/AIDS, A Framework for Priority Linkages. WHO/UNFPA/IPPF/UNAIDS 2005

HIV-infected women and their families: Psychosocial support and related issues. A literature review. WHO/RHR/03.07 and WHO/HIV/03.07 2003.

Pregnancy, Childbirth and Newborn Care: A guide for essential practice. WHO 2003.

Scaling up antiretroviral therapy in resource-limited settings. Treatment guidelines for a public health approach 2003 revision. WHO 2004.

Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants. Guidelines on care, treatment and support for women living with HIV/AIDS and their children in resource-constrained settings. WHO 2004.

Antiretroviral drugs and the prevention of mother-to-child transmission of HIV infection in resource-limited settings. Recommendations for a Public Health Approach (2005 revision) WHO.

Antiretroviral drugs for the treatment of HIV infection in infants and children in resource-limited settings. Recommendations for a Public Health Approach (2005 revision) WHO.

INTRODUCTION

Start the session by presenting the following general information on HIV and AIDS.

The HIV/AIDS pandemic takes an increasing toll of women and children, especially in sub-Saharan Africa. Some 39 million people are now living in HIV, of whom 2.2 million are children under 15 years of age and 18 million are women. In 2004, there were 4.9 million new cases of infection, including 640 000 children under 15. In 2004, 3.1 million people died of AIDS, 510 000 of whom were children. HIV/AIDS has thus led to significant increases in mortality in many countries: it is a leading cause of death among women and children in the most severely affected countries in sub-Saharan Africa.

Across the world, around 2.2 million women with HIV infection give birth each year. HIV infection in pregnancy increases the risk of complications of pregnancy and childbirth. Childbirth of an HIV-positive mother have a higher mortality risk than children of HIV-negative mothers. HIV infection in children, almost always acquired through mother-to-child transmission, causes high mortality rates and some 60% die before their fifth birthday.

The major concentration of HIV infection is in the developing world. Eighty-six percent of people with HIV live in sub-Saharan Africa and the developing countries of Asia. Infection rates are rising rapidly in much of Asia, eastern Europe and southern Africa. In some Latin America countries prevalence is rising rapidly, while in other parts of Latin America and many industrialized countries, infection rates are falling or are becoming stable. This is also the case in Thailand, Uganda, and in some west African countries. However, although the situation is improving among many groups, every year there are large numbers of new infections in these countries.

There is no simple explanation as to why some countries are more affected by HIV than others. However, poverty, illiteracy and risk-taking behaviours account for much of the epidemic. People who are infected with HIV often have no symptoms of the disease for many years and can infect others without realizing that they are infected themselves.

It is important that midwives and nurses understand the extent of the problem, both local and national.

Use the following questions to reflect on and discuss the situation locally and nationally.

How many people in your local community are now infected with HIV?

What is the rate of new infections in your community?

What is the main mode of transmission of HIV in your country?

How many cases of AIDS have been reported in your country?

Be prepared to provide answers to these questions if students are unable to reply. If local and national statistics are not available, be prepared to talk about how information could be collected. For example, visiting hospitals (to assess the number of in-patients who are HIV infected), visiting STD services, blood transfusion services and other facilities that people use to access HIV-related care would provide important information about the situation with respect to HIV/AIDS.

MAJOR SOURCES OF HIV INFECTION

There are four main sources of HIV infection:

Sexual transmission: the most common form of HIV transmission is through sexual intercourse or through contact with infected blood, semen, or cervical and vaginal fluids transmitted from an infected person to his/her sexual partner, whether it be man to woman, man to man, or woman to woman, although the latter is less likely. HIV transmission through sexual contact can occur vaginally, orally, anally or rectally. Male to female transmission, usually from a single partner, is now the most common form of HIV sexual transmission.

Ask students how sexual transmission of HIV can be prevented? Compare their answers with the following information:

The safest way of preventing sexual transmission of HIV is abstinence. In most cases, however, this is neither realistic nor agreeable. The next most effective are barrier methods that prevent semen and other body fluids from passing from one partner to another. These include male and female condoms.

Transfusion of blood and blood products, or transplanted tissue or organs obtained from HIV-infected donors: There is a 90–95% chance that a person who receives blood from an HIV-infected donor will become infected with HIV themselves. Recipients of blood have an increased risk of HIV infection. However, this risk can virtually be prevented by a safe blood supply, and by using blood transfusions appropriately.

Ask students what they see as the difficulties interfering with a safe blood supply. Write down their responses on the blackboard or a

flipchart. Make sure that the following points are covered:

- lack of national blood policy and plan
- lack of an organized blood transfusion service
- lack of safe donors or the presence of unsafe donors
- lack of blood screening, and
- unnecessary or inappropriate use of blood.

In many countries, regulations on blood donations, screening and transfusion exist, but are not followed. It is extremely important that regulations be established and rigorously enforced.

Three essential elements must be in place to ensure a safe blood supply:

1. There must be a national blood transfusion service run on a non-profit basis which is answerable to the Ministry of Health.

2. Wherever possible, there should be a policy of excluding all paid or professional donors, but at the same time, encouraging voluntary (non-paid) donors to donate regularly. Suitable donors are those considered to have a low risk of infection.

3. All donated blood must be screened for HIV, as well as for hepatitis B and syphilis (and hepatitis C where possible). In addition, both donors and patients must be aware that blood should be used only when transfusions are necessary.

Using skin piercing instruments or injecting equipment that is contaminated with HIV: HIV can spread very rapidly among injecting drug users (IDUs), and from them to their sex partners and children. The most common means of HIV transmission among IDUs is the sharing of non-sterile injection equipment. Two strategies that have been shown to be effective are: the sale of needles and syringes at a minimum cost through pharmacies and other outlets; and needle and syringe exchange programmes.

Ask students the following questions:

Is there a problem with IDUs in their community/country?

If so, what interventions are available for preventing HIV infection?

Transmission from mother-to-child during pregnancy, labour, or following birth through breastfeeding: Mother-to-child transmission (MTCT) of HIV is the most significant source of HIV infection in children below the age of 10 years. Four out of 20 babies born to HIV-infected mothers would be infected during pregnancy and childbirth without ARVmedication. Three more may be infected by breastfeeding.

Tell students that the strategy for preventing MTCT will be discussed later in the session.

WOMEN, RISK FACTORS AND HIV INFECTION

The factors that place women at risk of HIV infection can be grouped as follows:

Biological vulnerability: Research shows that the risk of becoming infected with HIV during unprotected vaginal intercourse is as much as 2–4 times higher for women than for men. Women are also more vulnerable to other STIs. One major reason for this is that women have a larger surface area of mucosa (the thin lining of the vagina and cervix) exposed to their partner's secretions during sexual intercourse. In addition, semen infected with HIV typically contains higher concentrations of the virus than a woman's sexual secretions. Younger women are at even greater risk because their immature cervix and scant vaginal secretions provide less of a barrier to HIV, and they are prone to vaginal mucosa lacerations.

Social and economic vulnerability: Preventive measures such as abstinance, fidelity (faithfulness to one partner), condom use, needle exchange programmes (for intravenous drug users) and encouraging and enabling people to get prompt STI treatments have all helped avoid HIV infection. For millions of women, however, their ability to make decisions about preventive measures is limited by their socioeconomic circumstances because they lack economic resources and/or are fearful of abandonment or violence from their male partner. Many women, therefore, have little control over how and when they have sex and have little or no control over their risk of becoming infected. Even if a woman suspects her partner has HIV, she would probably be unwilling to refuse sex, or insist on condom use, if it meant losing his support.

Lack of education: Millions of young girls grow up with little or no knowledge of their reproductive system or how HIV and STIs are transmitted and prevented.

Sexual customs and norms: Women are usually expected to leave the initiative and decision-making in sex to males, as well as tolerate predatory, violent sex. In addition, there is often a double standard where women are blamed or thrown out for infidelity (real or suspected), while men are expected or allowed to have multiple partners.

Lack of economic opportunities: The rights of women to equal education and employment opportunities is often not respected, which reinforces the dependence of women on men. This dependence may be on a husband or stable partner, a "sugar daddy" (a partner who gives gifts in return for sex), a few steady male partners who have fathered the woman's children or, for prostitutes, on a string of clients. Dependency leads to submissive behaviour and leaves women feeling disempowered and unable to feel in control of their lives.

GROUP WORK

Women's vulnerability to HIV infection comes from lack of power and control over the risk factors described above. One important way of responding to this is to create opportunities to foster empowerment of women.

Divide students into small groups and review with them the "Instructions for Group Work", included at the end of the session. Make sure that students understand what is expected of them. Allow one hour for the groups to complete the activity and spend some time with each group to help facilitate the activity. Allow 5–10 minutes for each group to provide feedback about the outcome of the group activity.

Feedback and discussion

The following are examples of opportunities for fostering the empowerment of women, that may be useful to compare with the opportunities described by students during feedback and discussion.

***Provide women-friendly services**: Ensure that girls and women have access to appropriate health services, including those for HIV/STI prevention and care. The services should be available at places and times that are convenient and acceptable to women. They should be provided in a respectful manner, and ensure privacy and confidentiality at all times. In addition, voluntary counselling and testing services (VCT) should be widely available, as should condoms and information and education about their use.*

***Combat ignorance**: Improve education for women, including education about their bodies, STIs, HIV and AIDS, and the confidence to say no to unwanted or unsafe sex.*

***Build safer norms**: Provide support to women's groups and community organizations in questioning behavioural traditions such as child abuse, rape, sexual domination, and female genital mutilation. Educate boys and men to respect girls and women, and to engage in responsible sexual behaviour.*

***Reinforce women's economic independence**: Encourage and strengthen existing training opportunities for women, credit programmes, saving schemes, and women's cooperatives, and link these to HIV/AIDS prevention activities.*

***Reduce women's vulnerability through policy change**: At community and national levels (as well as internationally), respect and protect the rights and freedom of women. This could be achieved by giving women a greater voice in political activities at local, national and international levels.*

Continue the session by presenting and discussing the following information.

The rate of transmission of HIV infected pregnant women to their infants has decreased to less than 2% in industrialized countries. This has been achieved through the use of highly effective antiretroviral drug regimens for prevention of vertical transmission or maternal treatment, in combination with elective caesarean section and replacement feeding from birth. Some developing countries, such as Thailand, have also succeeded in reducing the number of children infected with HIV. Achieving similar results in other developing countries, some of which are hardest hit by the AIDS epidemic, will require addressing many challenges and solving some key problems.

A three-pronged strategy for the prevention of MTCT of HIV has been defined by WHO and its partners. The strategy is outlined in Table 1.

Photocopy the table onto a transparency and use it to go through each of the three prongs of the strategy.

It is also important to provide and improve care and support services for HIV-infected individuals and their families, in particular care of the HIV-infected mother; psychosocial support for the mother and her family; and planning for the long-term care and support for HIV-infected and affected children in the family.

Midwives have an important role to play in the implementation of the strategy described above, especially, with respect to the provision of information, education and counselling on HIV prevention, antenatal care, safe delivery practices, and counselling and support for safer infant feeding practices.

Risks of breastfeeding and replacement feeding

Breastfeeding is associated with a significant additional risk of HIV transmission from mother-to-child as compared to non-breastfeeding. This risk depends on clinical factors and may vary according to the pattern and duration of breastfeeding. In untreated HIV-infected women who continue to breastfeed after the first year, the absolute risk of transmission is 10–20%.

The risk of MTCT of HIV through breastfeeding appears to be greatest during the first months of life, but continues for the duration of breastfeeding.

Replacement feeding carries an increased risk of morbidity and mortality associated with malnutrition and with infectious diseases other than HIV. This is especially true in the first six months of life and decreases after this. The risk and feasibility of replacement feeding are affected by the local environment and the individual woman's situation.

Table 1: MTCT–prevention programme components and their contribution to the three-pronged strategy

	Primary prevention of HIV among parents-to-be	Prevention of unwanted pregnancies among HIV-infected women	Prevention of HIV transmission from HIV-infected pregnant women to their infants
Information, education and counselling on HIV prevention and care including approaches to MTCT-prevention	✓	✓	✓
Condom promotion	✓	✓	✓
Voluntary counselling and testing	✓	✓	✓
Family planning services		✓	
Treatment of sexually transmitted infections	✓		
Antenatal care			✓
Treatment/prevention of transmission with antiretroviral regimens			✓
Safe delivery practices			✓
Counselling and support for safer infant feeding practices			✓
Community action to reduce stigma and discrimination and increase support for HIV prevention and care interventions	✓	✓	✓

With respect to infant feeding practices, the following applies:

When replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-infected mothers is recommended. Otherwise, exclusive breastfeeding is recommended during the first months of life. To minimize the risk of HIV transmission, breastfeeding should be discontinued as soon as it is feasible, taking into consideration local circumstances, the individual woman's situation and the risk of replacement feeding (including infections other than HIV and malnutrition). More information on this subject can be obtained from other WHO documentation.*

When HIV-infected mothers choose not to breastfeed from birth, or stop breastfeeding later, they should be given specific guidance and support for at least the first two years of the baby's life to ensure adequate replacement feeding.

RISK OF HIV TRANSMISSION IN THE WORKPLACE

HIV can be transmitted in the workplace in the following ways.

To patients through contaminated instruments that are re-used without adequate disinfection and sterilization; transfusion of HIV-infected blood, skin grafts, organ transplants; HIV-infected donated semen; and contact with blood or other body fluids from an HIV-infected health care worker.

To health care workers through skin piercing with a needle or any other sharp instrument which has been contaminated with blood or other body fluids from an HIV-infected person; exposure of broken skin, open cuts or wounds to blood or other body fluids from an HIV-infected person; and splashes from infected body or body fluids onto the mucous membranes (mouth or eyes).

Most patient care does not involve any risk of HIV transmission; occupational exposure is rare. However, to minimize the risk of occupational transmission of HIV (as well as other infectious diseases), all health care workers should adopt appropriate infection prevention practices. These include:

- Understanding and using Universal Precautions with all patients, at all times, in all settings, regardless of patient diagnoses
- Reducing unnecessary blood transfusions, injections, suturing, and invasive procedures such as episiotomies and other surgical procedures when they are not necessary
- Making adequate supplies available to comply with basic standards of infection control, even in resource poor settings
- Adopting locally appropriate policies and guidelines for the proper use of supplies, and for the education and supervision of staff
- Assessing and reducing risks during regular supervision in health care settings.

Use the following questions to reflect on and discuss the situation in the workplaces of students:

- *What resources would you consider essential to ensure safety for patients and staff?*
- *How would you go about making sure these resources are available?*
- *What would you do to ensure that needle stick injuries and other accidents that might lead to HIV infection are reported?*
- *What actions would you consider to make your work environment safer?*

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* *HIV and infant feeding: a guide for health-care managers and supervisors,* and *HIV and Infant feeding: guidelines for decision-makers.* Geneva, World Health Organization, 2004.

Let students know that information on Universal Precautions and details related to infection prevention practices are included in postpartum haemorrhage, prolonged and obstructed labour, puerperal sepsis, eclampsia, and incomplete abortion modules.

Give a brief summary of the session and answer any remaining questions.

INSTRUCTIONS FOR GROUP WORK

This activity will help you empower women to overcome the factors that put them at risk of HIV infection.

How can we, as midwives, create opportunities to foster empowerment of women

Be creative with your ideas.

To help you get started, review some of the risk factors presented in class, such as:

- Biological vulnerability
- Social and economic vulnerability
- Lack of education
- Sexual customs and norms
- Lack of economic opportunities.

11 INTRODUCING COMMUNITY PROFILING

SESSION 11
INTRODUCING COMMUNITY PROFILING

Aims

- To enable students to understand the meaning of community profiling, and how a community profile can be used to plan community-based care.
- To enable students to identify and consider important issues when working to promote safe motherhood within a community.

Objectives

On completion of Session 11, students will be able to:

- Define profile and community profile.
- Discuss the importance of recognizing the unique features of a community, in order to provide effective health care.
- Explain the use of the terms ratio, average and percentage, and calculate ratios, averages and percentages.
- Define maternal mortality ratio and rate and calculate maternal mortality ratios.
- Outline the details needed to compile a community profile, with particular emphasis on safe motherhood.
- Explain the importance of finding out the community's own concerns and priorities regarding health issues, and working in cooperation with community members to promote safe motherhood.
- Identify ways of discussing important issues related to safe motherhood with community members with a view to building a good relationship with the community.
- Compile a community profile, including information about maternal deaths, taboos and traditional practices associated with pregnancy and childbirth, health facilities and resources, and decision-making in the community.
- Write an action plan based on the findings of the community profile.

Plan

Modified lecture (1½ hours).
Practical exercises (1½ hours).
Group discussion (1½ hours).
Small group tutorials (2 hours).
Optional use of role play.
Community visit (at least several days).
Private study for work on profile.

Resources

Community profile.
Worksheet.

INTRODUCTION

In preparation for the community visit in this session, review the information related to community visits, included at the beginning of the introduction to Session 2. In addition, review (a) the instructions under "Compiling a community profile" and (b) Parts 1 and 2 of the Community Profile.

This session covers the following topics and activities:

1. *The meaning of "profile" and some practical exercises in order to illustrate it.*

2. *The meaning of "community profile" and the information needed to compile it.*

3. *Basic mathematics needed to compile a community profile and practical exercises.*

4. *Community visits during which the students will collect information to complete a community profile (the outline to be used is given at the end of the session).*

Profiles

Introduce the subject by explaining the meaning of a profile:

"A drawing, silhouette, or other representation of side view, particularly the human face" as illustrated in ***Figure 9.1****.*

Figure 9.1: Profiles

The teacher may wish to demonstrate the meaning of profile with any of the following exercises.

Exercise 1

*Ask students to place their left hand on a piece of paper. Then take a pencil and draw around the hand (**Figure 9.2**).*

They will each produce a unique "profile" of their own hand.

Next, ask the students to exchange the profile of their own hand with the person sitting next to them.

They should now try placing their hand on someone else's profile.

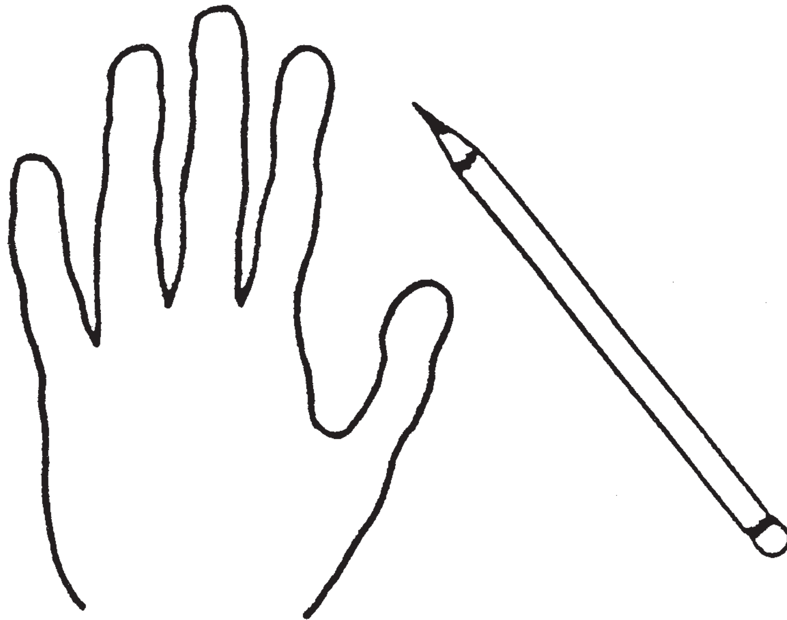


Figure 9.2:

They will find that they cannot do this exactly. There will be differences in size and shape. Some profiles will be similar, but they will never be exactly the same.

A shadow can also make a profile. Demonstrate this.

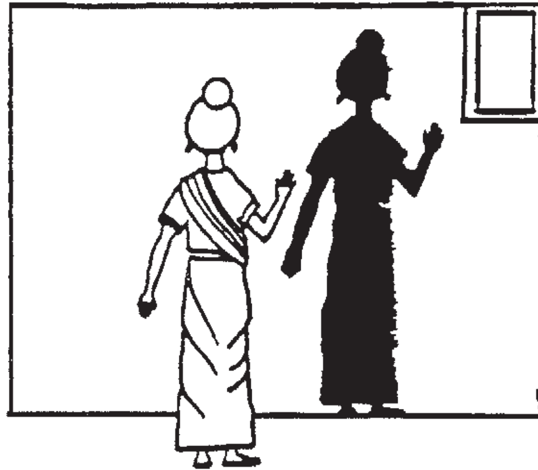


Figure 9.3

Exercise 2

*Ask some students to stand in the sunshine in front of a wall so that their shadows fall onto the wall (**Figure 9.3**). Again you will have a unique profile for each student.*

At midday, shadows will be very short because the sun is high in the sky. Try the exercise first to see what time of day is best to get a shadow that can be recognized as an individual profile.

*When doing this exercise, demonstrate how a person's profile can be changed when someone gets in the way (**Figure 9.4**).*

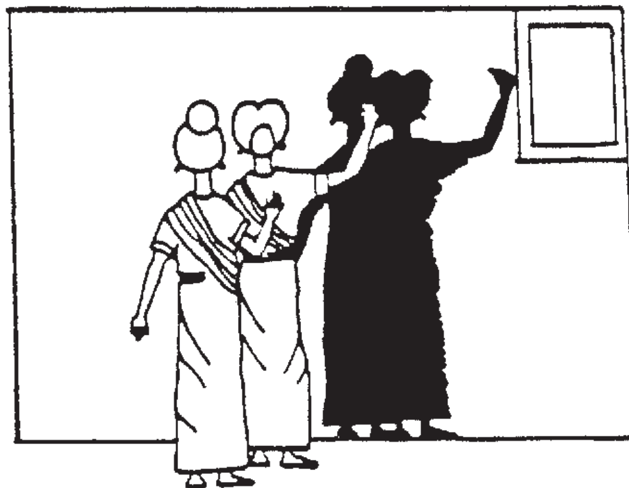


Figure 9.4

Use this example later to explain to the students how we can get in the way ourselves when we are trying to produce an accurate community profile. It is possible to have an incorrect profile of a community:

- *if we do not obtain accurate information*
- *if we do not obtain complete information*
- *if we make judgements without proper assessment.*

In the same way that a drawing or shadow can illustrate the special and unique features of a person, so a profile can be made by studying a community. A community profile provides the starting information. More detail can be obtained later.

Compiling a detailed community profile is a large undertaking. To help students look at the things that are relevant to promoting safe motherhood, the following approach is suggested.

What is a community profile?

Write down the description below on a blackboard, or use an overhead projector.

A community profile will describe:

- the unique features of the community
- the size and characteristics of a population
- the main health factors of a community.

The following information is needed:

- population statistics, including facts and figures about maternal deaths in the community
- information on how the community functions, such as
  - leaders, their control and decision-making
  - occupations and income
  - transport and communication
  - taboos and traditions associated with childbirth
  - health resources (including facilities, staff and costs)
  - maternal health services, including access to and use of services, and referral systems
  - sanitation
  - water supply
  - food supply.

A community profile essentially answers the question

"Where are we now?"

and provides baseline information on the present situation. The information can then be used for planning purposes.

BASIC MATHEMATICS

To compile a community profile it is necessary to understand certain definitions and to be able to make some calculations.

It is essential that students understand the basic mathematics needed to compile a "community profile". Give examples and use some practical exercises to help understanding.

It is advised to work through basic mathematics first before starting on community profiles.

Definitions and calculations

(A) Ratios

A ratio describes the relationship between two figures. It is determined by the number of times one will fit into the other.

***Exercise 1**: Take one book and two students.*
Ask the students to stand in front of the class and hold the book.

There is one book for two students, therefore:

the ratio is written as
books : students = 1 : 2

Write this down on the blackboard.

Now, ask more students to come forward and ask the group to calculate the ratio of books : students.

While you have 1 book, you can demonstrate a variety of ratios, such as

books : students
1 : 2
1 : 3
1 : 5
1 : 10
1 : 24 *… and so on.*

There are 2 books. Help the students to understand that:

2 books for 4 students is the same as
1 book for 2 students.

Application:

This can be used to demonstrate whether we have enough books for students. A ratio of books : students of 1 : 24, or even 1 : 10 means that we are short of books!

Summarize.

Ask if there are any questions.

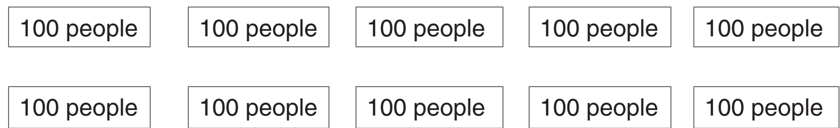
Apply this to the ratio of beds to the number of population.

Beds : population.

***Exercise 2**: Estimating the bed : population ratio.*

You will need 10 chairs or stools, and 10 pieces of paper.

Write on the 10 pieces of paper, as follows:



1. *Ask students to imagine that 1 chair is 1 bed in a hospital or health facility.*

2. *Give 10 students one piece of paper each. Tell them that they each represent 100 people.*

3. *Place the chairs in pairs, facing each other. Then ask one student (holding 1 piece of paper) to lie across the 10 chairs. This student represents 100 people. Each chair represents 1 bed. Now ask the students:*

If there are 10 beds for every 100 people, how many people are there per bed?

Here explain that the little word "per" is used in statistics to mean

"for each" or "for every".

Therefore, we are asking how many people are there for each bed?

***Answer**:*

If there are 100 people for every 10 beds, there are 10 people for every (1) bed.

Therefore the ratio of people to beds = 10 : 1.

4. *Ask another student to come forward.*

This student also represents 100 people. There are still only 10 beds.

Now the ratio of people : beds = 200 : 10 or
20 : 1.

5. *Call more students forward to demonstrate ratios of:*

people	*: beds*
300	*: 10 or*
30	*: 1*
500	*: 10 or*
50	*: 1*
700	*: 10 or*
70	*: 1 … and so on.*

6. *Ask the students:*

What is the ratio of people (or population) to beds of this whole "community" (represented by the 10 students)?

Let them count that there are 1000 people and 10 beds.

***Answer**:*

For the total population of the community of 1000

the ratio of people : beds = 1000 : 10, or
100 : 1.

Application: This can be used to state whether there are enough beds for a population.

(B) Averages

An average is obtained by adding all the individual figures in a group and then dividing by the total number of figures in the group.

An average gives a general idea of the numbers, amounts or values involved.

The word "mean" can be used instead of "average". These words share the same definition.

***Exercise 3**: Average attendance at an antenatal clinic.*

1. *Write on 5 large pieces of paper the names of 5 days of the week.*

Monday	Tuesday	Wednesday	Thursday	Friday

2. *Place these papers in 5 different places in the room. Leave the centre of the room clear.*

3. *Ask 20 students to help. Tell them that they each represent one woman attending an antenatal clinic.*

4. *Send them to the 5 places in the room representing the clinics on those 5 days, e.g.*

Monday	*5*
Tuesday	*6*
Wednesday	*3*
Thursday	*2*
Friday	*4*

5. *Ask the students to count how many women attended on each day. They will the have a list as above.*

6. *In order to calculate an average attendance, ask all the students to leave their "clinic" and stand in the middle of the room.*

7. *Now ask 2 or 3 other students (who are not in the "clinics") to count the total number of "pregnant women".*

   Answer *= 20*

   Then count the number of "clinics" if one is held each day.

   Answer *= 5*

Divide the number of pregnant women by the number of clinics, i.e. 20 divided by 5 = 4. This is the average.

Therefore, we can say that at this health centre, the average attendance at antenatal clinics is 4 women per day.

8. *Now ask the students to return to the 5 clinics, but with an equal number in each. (They will find that there has to be 4 to each clinic). This is the average number of women who attend a clinic each day.*

Students may ask what happens if there is a number that does not divide evenly (leaving no remainder) into 5.

This is a good question which shows the students are thinking about it. The answer is that in statistics this would be shown by a decimal point - e.g. 4.5.

Of course it is impossible to have 0.5 or ½ a woman attend a clinic! If students do not ask you this question, you should ask them.

Application:

We can use averages to give us a general idea about such things as clinic attendances.

***The advantage** is that an average gives a better idea than just looking at the totals for one day.*

***The disadvantage** is that an average does not show which clinics are busy and which are quiet.*

Obviously the more clinics that are taken into account, the better idea of clinic attendance is obtained. The following averages may be obtained:

- *weekly totals for 1 month can be added up and divided by 4 (providing there are 4 weeks in the month) to give the average for a week*
- *monthly totals for 1 year can be added up, and divided by 12 (i.e. 12 months in a year) to give the average for a month.*

Summarize.

Ask if there are any questions.

(C) Percentages

Students must understand that "cent" means 100.

They may be familiar with money that has cents. There will be 100 cents to the dollar or other currency.

Per cent means out of 100.

***Exercise 4**:*

1. *Prepare 24 cards or pieces of paper and write the number 5 on each of them.*

   Now take 20 of the cards.

   *On 18 of the cards mark **A** (for anaemia).*

   *On 6 of the cards mark **H** (for hypertension), so that 4 of the 20 cards will be marked both A and H.*

Follow the example.

5 A	5 A	5 A	5 A
5 A	5 A	5 A	5 A
5 A	5 A	5 A	5 A
5 A	5 A	5 A H	5 A H
5 A H	5 A H	5	5
5	5	5	5

Cut the cards/papers into 24 pieces along the lines.

2. *Ask 24 students to help you.*

   Give 20 of them a card marked A, or H, or A and H.

   Tell them that they each represent 5 pregnant women attending a clinic.

   You will have 20 students each representing 5 women - i.e. 100 women.

3. *Ask the other 4 students to sit on one side for the present and give each of them a card marked only with the number 5, and not A or H. This will make demonstration easier.*

4. *Now ask the students to:*

   (a) *Count all the women*
   (Answer = 100)

   (b) *Count the number of women with anaemia (marked* ***A****)*
   (Answer = 90)

   (c) *Count the number of women with hypertension (marked* ***H****)*
   (Answer = 30)

5. *Because there are 100 women, the answers above can be expressed as per cent - i.e. "%".*

   90% (90 in 100) are anaemic, and

   30% (30 in 100) are hypertensive.

Show the students the formula they need to use in order to calculate a percentage. The first one is easy because the total is 100.

Using the blackboard, show how this is calculated.

Formula:

$$\frac{\text{Number measured}}{\text{Total number}} \times 100$$

Using that formula:

$$\frac{\text{Number measured}}{\text{Total number:}} \quad \frac{90}{100} \times 100 \text{ i.e. } \frac{90}{100}$$

= 90, i.e. 90%

and $\frac{30}{100} \times 100 = 30$ i.e. 30%.

6. *Ask the remaining 4 students to join in. You now have 120 women.*

7. *Now ask the students to count again:*

   (a) *Count all the women*

   (Answer = 120)

   (b) *Count the number of women with anaemia (marked* ***A****)*

   (Answer = 90)

   (c) *Count the number of women with hypertension (marked* ***H****)*

   (Answer > 30).

The students can now work out the following percentages in the same way:

$\frac{90}{100} \times 100 = 75\%$ *of women are anaemic*

and

$\frac{30}{120} \times 100 = 25\%$ *of women have hypertension*

Make sure that the students understand how to do this.

The answer can also be expressed as a fraction. Dividing both figures in the fraction by the same numbers will reduce them both by exactly the same amount leaving no remainder.

In this case:

1. *Divide by 10 to make 90 becomes 9, and 120 becomes 12. An easy way of dividing by 10 is just to cross off the zeros.*

   90 divided by 10 = 9

   120 divided by 10 = 12.

2. *Divide this figure by another to reduce it further. Ask the students: What figure can we now use that will divide evenly (leaving no remainder) into 9 and 12? (Wait for them to realize that 3 will divide into both 9 and 12. This will give ¾ which cannot be reduced any further by division).*

Guide the students through the following calculation. (You must be satisfied that they understand. You should give them other examples if necessary until you are sure they understand how the calculation is made).

Help them by showing them:

$$\frac{90}{120}$$

$$\frac{90}{120} = \frac{9}{12} = \frac{3}{4}$$

Write in the lowest figures:

$\frac{3}{4}$ *= three–quarters*

Now look at the fraction:

$$\frac{30}{120}$$

Write in the lowest figures:

$$\frac{30}{120} = \frac{3}{12} = \frac{1}{4}$$

$\frac{1}{4}$ *= one–quarter*

Important

Emphasize that a percentage will give the same proportion of the whole whatever the size of the sample. You can demonstrate this by showing the students that 50% or ½ (half) of a melon is larger than 50% or ½ (half) of an orange, but both are 50%.

When the students understand this, they understand percentages!

Students should now find it easy to apply this knowledge. They have already seen how the percentage of women with anaemia and hypertension can be calculated.

A word of warning!

Students will have seen how 50% of a large fruit is the same proportion as 50% of a small fruit. But the amount of fruit involved is very different. To emphasize this you could ask them to look at 50% of a small nut.

We have to realize that in order to know how much fruit we have, we need to look at the size of the whole fruit (or total).

In the same way we need to know the total size of the population we are studying.

If we say that 50% of the women who came to the family planning clinic came with their husbands, what do we mean?

If 50 women came to the clinic, then we mean that 25 came with their husbands, but …

… if only 2 women came to the clinic, then just 1 came with her husband.

You can give other examples that will be meaningful to your students. It is important for them to understand that:

- *percentages are useful, but they must be interpreted in the light of the total numbers involved*
- *it is only by using percentages that we can compare one health area to another. No two will have the same population, number of pregnant women, new babies, etc.*

Summarize. Ask if there are any questions.

Maternal mortality ratio and rate

.

First of all, ask the students to recall the definition of maternal death introduced in Session 3, and then discuss the following definitions:

Maternal mortality ratio: *the number of maternal deaths divided by the number of live births.*

Maternal mortality rate: *the number of maternal deaths divided by the number of women of reproductive age.*

Now teach students how to calculate the maternal mortality ratio (usually written as MMR).

A maternal mortality ratio tells us how many maternal deaths there are by comparison with a fixed number of live births.

In dealing with statistics in larger populations, it is useful to state the figures by comparison with larger fixed numbers of the population:

i.e. 1000, 10 000 or 100 000 instead of 100 (or per cent).

The maternal mortality ratio tells us how many women for a given number of live births die as a result of pregnancy and childbirth in a given year.

We can then work out the risk of dying from a given pregnancy. We are now going to calculate maternal mortality ratios per 100 000 live births.

How to calculate the maternal mortality ratio

The maternal mortality ratio in any one year is written as a fraction.

- *The number of maternal deaths is the numerator*, and the total number of live births is the denominator**. Multiply by a constant figure (or a figure which does not change) called "k".*
- *k = 1000, 10 000 or 100 000.*

Explain to the students that:

- *A formula is used and this is written as a fraction*
- ** The numerator is the figure on the top of the fraction*
- *** The denominator is the figure on the bottom of the fraction.*

MMR ratio =

$$\frac{\text{Number of maternal deaths in a given year in an area}}{\text{Number of live births in the same year and area}} \times k$$

Example:

Number of maternal deaths in 1990 = 10
Number of live births in 1990 = 10 000
Therefore:

$$MMR = \frac{10}{10\,000} \times 100\,000 = 100$$

i.e. 100 per 100 000 live births

This means that in that area in 1990, a pregnant woman has a chance (or risk) of dying in pregnancy or childbirth of

1 in 1000.

(Make sure that students understand how this figure is obtained. Write down on the blackboard how to simplify the figures by crossing out the zeros).

100 in 100 000 becomes
1 in 1000.

Exercise 5:

Write on 9 cards or pieces of paper, the following information:

120 live births	2 live births	38 live births
33 live births	125 live births	35 live births
28 live births	10 live births i.e. 5 sets of twins	9 live births

Give 9 students one each of these cards.

Now ask the class: How many live births (babies) are there?

(Answer = 400)

Ask the student holding the card with "2 live births" to sit down and state: "These mothers have died".

Ask the students to calculate the maternal mortality ratio per 100 000 in this population.

Answer:

$$\frac{\text{No. of maternal deaths}}{\text{No. of live births}} \times k, \ MMR = \frac{2}{400} \times 100\,000 \text{ live births}$$

$$= \frac{2}{4} \times 1000 \quad = \frac{1}{2} \times 1000 = 500 \text{ per } 100\,000 \text{ live births}$$

Next, ask the students to count the mothers.

Answer 395, because there are 5 sets of twins.

Now give the students the definition of "Maternities": "a count of the number of mothers who delivered as distinct from the number of babies born".

This corrects for twins and multiple births when the maternal mortality ratio is calculated.

Help students understand that this will give slightly higher maternal mortality ratios.

(This can be demonstrated by using 395 instead of 400 in the above calculation).

As you start looking at statistics, read, think about and discuss the note below with your students and your colleagues.

Explain how to use the community profile outline.

Note:

The statistics compiled by the students might show that the situation is worse than expected. This could be discouraging. However, it is essential to recognize and acknowledge the situation before it can be improved.

COMPILING A COMMUNITY PROFILE

Having worked through the examples on basic mathematics, the next exercise (compiling a community profile) can be started. The Community profile has two parts.

Part 1 *of the community profile consists of collecting information on a selected community. Students will be asked to collect information about*

maternal deaths in the community visited, and taboos and traditional practices associated with childbirth. Students will be familiar with this topic from Session 6. Finally, students will assess the situation of transport and communication.

*In **Part 2** of the community profile, students will collect information on health facilities and resources, different aspects of maternity health care and information on the decision-makers in the community visited.*

Finally, based on the information collected, students should draw up an Action plan (a sample sheet for students is provided) outlining the intended action and how they plan to carry out the action, etc.

Introduce Part 2 after students have completed Part 1. It may become necessary to help students with Part 2 through small group tutorials. Students will be ready at different times.

Summarize each section (Part 1, Part 2 and the Action plan) when completed by the students, and then answer questions.

The following group discussion and/or role play may help to prepare students for the community visit.

Group discussion

During the discussion, ask the students the following questions:

1. *Why is it important that we find out from community members how they view health issues in their own community?*

2. *How can we find out what community members know about the risks to mothers - e.g. about obstructed labour?*

3. *As well as compiling a community profile, we also want to build up good relationships with the community. What is the most appropriate way of doing this?*

The following questions may help to think about this.

- *What preparations need to be made?*
- *What problems could we meet?*
- *How can we try to avoid or overcome these problems?*

Allow approximately 45 minutes for discussion, and a further 45 minutes for feedback.

Ask if there are any questions.

Summarize.

Role play

In class, practise through role play how students should approach their discussion in the community. Individuals interviewed in the community can be women, men, TBAs, community leaders, teachers, midwives, doctors, mothers-in-law, etc. Divide students into four groups.

***Group 1**:*

Discussion with mothers-in-law and other women in the community. Find out:

- *what they know about factors contributing to women's ill health*
- *what ideas they have about reducing risks.*

***Group 2**:*

Discussion with TBAs and midwives. Ask about the usefulness of

- *a health committee, and/or*
- *a safe motherhood committee.*

***Group 3**:*

Discussion with community leaders and other members of the community. Find out about:

- *transport and/or communication problems which may affect safe motherhood.*

***Group 4**:*

Discussion with teachers and other women in the community. Find out:

- *the main occupations of the people, and*
- *the socioeconomic problems of the community.*

Allow time for the groups to prepare their role play.

Discuss important points from the role play.

These should be points which will help to compile a profile when visiting the community.

Collecting the information

The following pages contain an outline which students should use to complete the community profile.

1. *Students should work in small teams (approximately 3 in a team) in order to collect the data.*

2. *Where statistics already exist, direct students to them. Data sources could be birth and death registries, hospital and health centre records. Ensure that time is not wasted in doing work that has already been done.*

3. *Ensure that students have a copy of the Community profile form, the Instructions for writing an action plan, and the Worksheet included at the end of the session. Students can add extra pages if necessary. Profiles should be as accurate and concise as possible.*

CONTENTS OF COMMUNITY PROFILE

PART 1

A. Population and statistics 136

B. Studying maternal deaths 136
(As this section should be completed separately for each maternal death, students may need more than one copy).

C. Taboos and traditional practices associated with childbirth 139

D. Transport and communication 140

PART 2

A. Health resources 142

B. Maternal health care 143

- Antenatal care 144
- Care in labour and birth 145
- Postnatal care 146
- Referral system 146
- Family planning services 147

C. Assessment of internal health services 148

D. Community leaders and community members 149

E. Action plan: example and instructions 150

COMMUNITY PROFILE

PART 1

A. POPULATION AND STATISTICS

Statistics for .... for the year ....
(community)

(a) Estimated total population ....

(b) Total number of births (live and stillbirths) ....

(c) Number of live births ....

(d) Average female population aged 15–49 years ....

(e) Total number of maternal deaths ....
i.e. Number officially registered, plus number reported by families/others

Note: **Women have died. In some communities, very few maternal deaths will be registered. Try to get an accurate figure. This will take time, but it is very important.**

Remember: A maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.

Remember: $$MMR = \frac{\text{No. of maternal deaths (e)}}{\text{No. of live births (c)}} \times 100\,000 \text{ live births}$$

B. STUDYING MATERNAL DEATHS

Fill in one of these forms for each maternal death.

1. Date and time of death (include day of the week) ....

2. Age of mother and duration of pregnancy at death ....

3. When the death occurred: (a), (b), (c) or (d):

   (a) before the start of labour pains
   (b) after the start of labour pains
   (c) during her delivery
   (d) after her delivery.

4. If (c) or (d), i.e. during or after her delivery.

   What was the length of time between the start of labour pains and delivery of the baby?

   ....

   ....

If the baby was delivered, what was the length of time between the delivery and the mother's death? (in hours or days)

....

What was the date of delivery?

....

5. Place of death:

- Home
- During journey/travel/transit
- Private hospital
- Health facility
- Other (please state)...

6. If death occurred at home, explain in detail why you (the midwife) believe the woman did not go to hospital for treatment.

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7. Was any worker called from the primary health centre to help in the emergency? YES/NO

If YES, who was called, and how long after the women experienced difficulties?................................

Did the person come?...

How much time elapsed between being called and arriving at the woman's home?...........................

....

8. If death occurred in hospital, describe the condition of the woman when she arrived at the hospital.

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9. What sort of transport was used to take the woman to hospital?

   ....

10. What was the distance between home and hospital?

   .... km

   .... miles, or length of journey in hours ....

11. Who accompanied the woman to hospital? ....

12. Did anyone advise the woman or her family that she needed to go to hospital? YES/NO

   If YES, who? ....

13. How many days or hours did the woman stay in hospital before her death ....

14. What signs/symptoms did the woman have before she died? (Ask questions about bleeding, fever, respiratory problems, level of consciousness, oedema/swelling, offensive smells, etc.).

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15. What treatment was the woman given in hospital, and who provided the treatment?

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16. If the woman delivered in hospital, what was the mode of delivery, and was it a live or stillbirth?

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   ....

17. If death occurred at home, who attended the woman?

   - Untrained TBA
   - Trained TBA
   - Relative
   - Neighbour
   - Auxilliary nurse/midwife
   - Nurse with MCH training
   - Enrolled midwife
   - Registered midwife
   - Government doctor
   - Private doctor
   - Other (please specify) ....

18. What do you think were the main causes of death?

- Spontaneous abortion
- Induced abortion
- Haemorrhage before delivery (APH)
- Haemorrhage after delivery (PPH)
- Retained placenta
- Obstructed labour (ruptured uterus)
- Sepsis/infection
- Eclampsia
- Tetanus
- Other (please specify)...

19. (a) Was the woman ill before she became pregnant? YES/NO

If YES, give details:

....

....

....

....

(b) What were the factors that you believe led to her death, and how could they have been overcome?

....

....

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....

C. TABOOS AND TRADITIONAL BELIEFS AND PRACTICES ASSOCIATED WITH CHILDBIRTH

1. Write down the things which you think are relevant to this community. These should include food, customs, local beliefs about health and illness related to pregnancy and childbirth, and remedies for problems (e.g. for prolonged labour, swelling/oedema, bleeding, fever).

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2. Carefully analyse the information you have collected, and decide whether the practices are **beneficial, neutral, uncertain or harmful**. Also refer to information collected, analysed and discussed in Session 9, if you are now completing a profile for the same community.

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D. TRANSPORT AND COMMUNICATION

1. How do people travel to health facilities, hospitals, schools, markets, etc.? What distances are involved? Who pays?

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2. How can messages be sent and received, and how long does it take to obtain help in an emergency?

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3. Add any other details which are important in the life and health of the community - e.g. is there a clean water supply, adequate sanitation, good food supply, adequate employment? (Give details)

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PART 2

A. HEALTH RESOURCES

Personnel who can provide community-based midwifery care.

Number of qualified midwives and nurses with midwifery skills:

Registered midwives/Nurse-midwives ....

Enrolled (2nd level) midwives ....

Nurses with MCH training ....

Auxiliary nurses/midwives ....

Number of TBAs:

Trained TBAs ....

Untrained TBAs ....

Number of doctors and other key personnel:

General practitioner ....

Obstetricians ....

Laboratory technicians ....

Other technical personnel ....
(Specify type)

Home visits:

Do the health centre staff provide antenatal care and care during labour in the woman's own home? YES/NO**.** If YES, please specify:

- main reasons for visits ....
- frequency of visits ....
- number of home births attended ....

Is the TBA present during home visits?: Always/mostly/rarely/never

Does the TBA visit the health facility? Regularly/rarely/not at all

Do the health facility staff visit the TBA? Regularly/rarely/not at all

Health facilities (Health stations, posts, clinics, etc.)

Number available to community ....

How many days per week are health staff available at the facility?...

How many hours per day are health staff available at the facility?...

Is the health facility within 1–2 hours walk of approximately 75% of the population?........................

What percentage of the population are more than 4 hours walk from the health facility?..................

How do people living a long way from the health facility get there? (e.g. if over 4 hours walk)

....

Hospitals:

Total number of maternity beds available ....

"Population to bed ratio" ....
(To estimate this, compare the total birth rate with the number of maternity beds available).

How do people living a long distance away get to the hospital? ....

What are the particular problems associated with travelling to the hospital? ....

....

Laboratory:

Are laboratory services available for women receiving maternity care in this community? YES/NO

If YES, what services are available? (tick those available)

- Haemaglobin tests
- Syphilis screening
- Urine culture
- Blood typing and cross-matching
- Blood screening for transfusion (e.g. HIV, Hepatitis B, syphilis)
- Malaria testing
- HIV screening (as part of voluntary counselling and testing)
- Other (***please specify***)

Are there any problems related to laboratory services? (If yes, write down the details)

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B. MATERNAL HEALTH CARE

Estimated number of pregnant women in the community in a one–month period.

Total number of births for the year = ...

Divide this number by 12 = ...

Antenatal care:

Number of women who have received antenatal care in one month

(i) at home ....

(ii) at a health facility ....

TOTAL ....
(Add (i) + (ii))

Percentage of women who received antenatal care:

Number of women making first visit,

before 16th week ....

= ....%

after 16th week ....

= ....%

Number of women not continuing attendance,

after first visit ....

= ....%

Is a **birth plan** developed with each woman who attends antenatal care? YES/NO

Is **voluntary counselling and testing** for HIV available for antenatal clients? YES/NO

What medical conditions are common in the community?
(tick those that are common)

- Anaemia
- Malnutrition
- Tuberculosis
- Hypertension
- Sexually transmitted diseases (including HIV/AIDS)
- Woman not fully immunized against tetanus
- Malaria
- Other (***please specify***)

What action, if any, is being taken at present to address the problems?

....

....

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....

How effective has the action been?

....

....

What are the perceptions of community members with respect to future actions to address these problems?

....

....

What are the most common serious complications associated with pregnancy and childbirth? (tick those that are common)

- Abortion
- Antepartum haemorrhage
- Pre-eclampsia and eclampsia
- Prolonged or obstructed labour
- Postpartum haemorrhage
- Puerperual sepsis

What action, if any, is being taken at present to address the problems?

....

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How effective has the action been?

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....

....

What are the perceptions of community members with respect to any future action to address these problems?

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....

Care in labour and birth:

Number of births in one month attended by:

- Registered midwives (nurse-midwives) ....
- Enrolled midwives ....
- Nurses with MCH training ....

- Doctors ....
- Auxiliary nurses/midwives ....
- **TOTAL** ....

Number of births in one month attended by:

- Trained TBAs ....
- Untrained TBAs ....
- Relatives ....
- Neighbours/friends ....
- **TOTAL** ....

Number of unattended deliveries (the woman delivered alone):

- **TOTAL** ....

Percentage of births attended by skilled personnel ....%

Postnatal care:

Outline the arrangements for this. **Who** provides care? **Where**? **What** are the arrangements for the identification and referral of **complications**?

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Referral system:

For women during pregnancy, labour or puerperium:

Number referred from community to health centre ....

Number referred from health centre to hospital ....

Number referred from community to hospital ....

Number referred from district hospital to secondary/tertiary level hospital ....

List reasons for referral:

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Family planning services:

Are these services provided in the health facility? YES/NO
Are they provided by mobile clinics? YES/NO

If YES, how often are the mobile clinics available?..

Are they provided in the homes? YES/NO

If YES, how often is this service available?..

Do adolescents have access to these services? YES/NO

If NO, what are the reasons?...

If YES, do they use the srvices?...

Uptake:

Estimated number of couples using family planning services = ...(year)..................

i.e. .... % of couples including women of 15–45 years.

(e.g. if there are 50 women aged 15–45 years and 10 of them are using the family planning services, the uptake is 20% [i.e. 10/50 or 1/5th]).

Costs:

What is the average cost a woman and her family would have to pay for normal routine care:

Each antenatal visit ....

Labour and birth ....

Postnatal care ....

Complications ....

(Calculate actual costs, (formal or informal), cost of equipment, cost of drugs, cost of travel, loss of earnings and child care (if appropriate) etc. List any additional costs).

Total cost of prenatal care ....

Total cost of labour and childbirth ....

Total cost of postnatal care ....

Total cost for family for care during each pregnancy ....

Average additional costs if a complication occurs ....

C. ASSESSMENT OF INTERNAL HEALTH SERVICES IN YOUR COMMUNITY

Using all of the above data, write down your general assessment of the maternal health services in this community. Include answers to the following questions.

- Are all of the essential maternal health services available?
- Are there sufficient numbers of staff?
- Are there sufficient beds for managing the number of complications?
- Are the services accessible for women and their families?
- Are the services affordable for women and their families?
- Are the services acceptable to women and their families?
- What improvements need to be made to promote safe motherhood?

My general assessment of maternal health services in .... community

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D. COMMUNITY LEADERS AND COMMUNITY MEMBERS

Include details of the persons who make important decisions about the community or have influence over the community - i.e. community leaders, religious leaders, other individuals or groups in the community.

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List the main occupations in the community - e.g. farmers, labourers, weavers, etc.

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In this community, is there

(a) **a Health Committee?** YES/NO

Comment:

....

....

....

(b) **a Safe Motherhood Committee?** YES/NO

Comment:

....

....

....

Talk to community leaders and other members of the community and find out their main concerns about maternal health and safe motherhood in the community. What do they know about risk factors (e.g. anaemia in pregnancy, obstructed labour) and what do they want to do about the risk factors present in the community?

Summarize your discussion, identifying the most important problems that should be tackled first.

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E.................WRITE AN ACTION PLAN FOR THE COMMUNITY YOU HAVE STUDIED

Based on the findings of the community you studied, write down an action plan for the community on the Worksheet provided. Remember that your intended actions should be consistent with the problems and needs perceived by community members. Follow this example:

Intended action	How we intend to do this?	Who we will approach?	Review date
Provide at least 1 home visit for each woman in pregnancy	We will start with families in area x of the village	Community leaders, women's groups, TBAs, health centre staff, manager in main hospital, doctor in main hospital	6 months (Date ....)

Intended action	How we intend to do this	Who we will approach	Review date

12 EVALUATING COMMUNITY-BASED MATERNITY CARE

SESSION 12
EVALUATING COMMUNITY-BASED MATERNITY CARE

Aims

- To enable students to evaluate the progress made in communities visited with regard to community-based maternity care.
- To provide encouragement and to give direction regarding future programmes.

Objectives

On completion of Session 12, students will be able to:

- Recall the diagram of The Road to Maternal Death (Session 1), Why did Mrs X die? and discuss ways of getting off that Road in a community with which they are familiar.
- Recall the statement made earlier in Session 3, and evaluate its stage of implementation.
- Develop an action statement with regard to future community-based care.

Plan

Group work, discussion (2 hours).

Resources

Instructions for Group Work.
Diagram of The Road to Maternal Death.
Evaluation sheet.
Video “Opening the gates to life”. This video is on sale from the World Health Organization, Marketing and Dissemination, CH-1211, Geneva 27, Switzerland. email: publications@who.int

INTRODUCTION

In this last session of the Foundation module, students will be given the opportunity to decide for themselves whether their activities in the community have made a difference. If no difference can be seen, they are also enabled to evaluate why not.

However, before the session is started, the teachers should ask themselves the following questions:

1. *What recommendations am I expecting? (The teacher will have a good idea about the problems encountered in providing care in local communities. Do not make recommendations for the students, but think ahead in order to guide and encourage them).*

2. *Which of these recommendations do I have authority to implement?*

3. *Which of the expected recommendations do I need to refer to someone with different or higher authority? (Decide on the first steps in doing this).*

4. *How will I cope with recommendations/ideas from students which I consider inappropriate or unwise? (Think about this in the local situation. If it is really inappropriate it is either the wrong time, wrong approach or not very helpful anyway).*

Approach these issues with an open mind.

Remember, being a pioneer is not easy, and if you meet with problems this is normal!

EVALUATING COMMUNITY-BASED MATERNITY CARE

Ask the students to form discussion groups to consider these questions.

- *What difference has our studying this module made to the people of the communities we have visited?*
- *Has safe motherhood been made possible for anyone in the community because of our commitment?*

If there are negative answers to either of these questions, discuss why it was not possible to bring about change.

Lead the students into discussion and provide an opportunity for them to share their experiences.

Remind the students about the story of Mrs X. Explain that they are going to evaluate the situation in the community/communities where they have been working throughout this module.

Divide the students into groups of approximately six and give them the Instructions for Group Work. If possible they should join a group which includes colleagues they worked with in the community.

Refer to the diagram "The Road to Maternal Death" included again at the end of the session. You may choose to sketch "The Road" and label it on a blackboard or flipchart which the students can refer to before and during the group work.

Provide the students with the Instructions for Group Work, "The Road to Maternal Death" diagram, the Evaluation sheet and a copy of the Statement of Intent from Session 3.

Following the group work, allow time for feedback.

Address each of the points which the groups were asked to discuss, and consider them more fully with the whole class.

By the end of the feedback and discussion time you should have agreed on an action statement.

It would be wise to discuss the students' recommendations in the action statement with colleagues in management and teaching.

Make sure that an action statement becomes an action, and not just an idea.

Remember, solving some of these problems will mean that some women's lives will be saved. It is worth every effort.

Summarize.

You may wish to conclude the module by showing the video "Opening the Gates to Life". This video explains how "The Road to Maternal Death" can be transformed into "The Road to Life".

INSTRUCTIONS FOR GROUP WORK

You will need:

- The diagram of The Road to Maternal Death.
- The Evaluation sheet: evaluation of safe motherhood status in ____________________ Community
- A copy of the Statement of Intent which you made earlier in this module.

1. The Community:

Think about the community where you have been working. Discuss the following questions:

- In your community, do you have the same sort of problems as Mrs X?
- If so, are there exits off The Road to Maternal Death for women in that community?

Complete the Evaluation sheet.

Be honest but realistic.

2. Statement of goals:

(a) Has the Statement which you made in Session 3 been put into practice?

- To some extent?
- To a large extent?
- Not at all?

(b) Do you need to modify your Statement in any way?

Remember that it must be realistic. If you have not been able to put it into practice, or either very little, consider the following:

- Is it realistic?
- Are there matters which are beyond your control (e.g. finance, management, legislation)?

If the answer here is yes, discuss who can help and what is your best approach (e.g. managers, teachers, Ministry/Department of Health, other government or nongovernmental organizations).

Should you make official recommendations?

3. Action statement:

Write a statement which will help promote sate motherhood in the community for which you are responsible.

Example:

"This group affirms that maternity care in the community is essential to safe motherood.
We wish to re-affirm our statement made on ___________________________________
and further commit ourselves to the following action:

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Appoint a group leader, and someone to report back on behalf of the group.

You have one hour in your group.

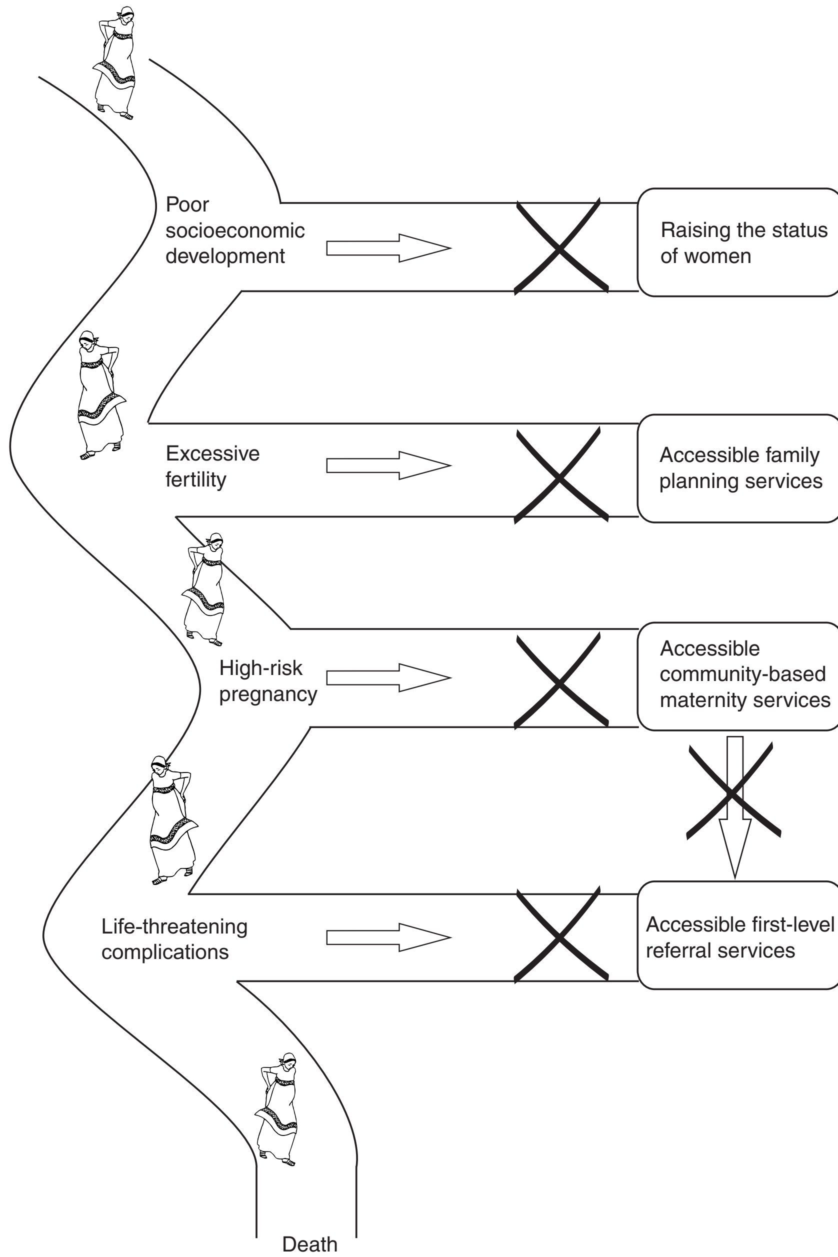
Evaluation of safe motherhood status in ________________________________ (community)

(Refer to The Road to Maternal Death diagram)

Problem identified on the“ Road to maternal death”	▪ Does not exist ▪ EXIT available	▪ Exists but is being addressed a. by other workers* b. community members	▪ Needs attention
1. Poor socioeconomic status: (Exit needed = raising the status of women)			
2. Excessive fertility: (Exit needed = family planning services)			
3. High risk pregnancy: (Exit needed = community-based maternity services)			
4. Life threatening complications: (Exit needed = accessible first level referral services)			

* If there are other workers involved, discuss how you could cooperate with them.

THE ROAD TO MATERNAL DEATH



GLOSSARY

As this is a combined glossary for all six modules, the terms below may not necessarily be found in this module.

A

Abortion

The term refers to the termination of pregnancy from whatever cause before the foetus is capable of extrauterine life.

Complete abortion is the expulsion from the uterus of all the products of conception, which is more likely to occur before the eighth week of pregnancy.

Incomplete abortion is the partial expulsion of the products of conception. All or part of the placenta may be retained resulting in profuse bleeding. Usually occurs in the second trimester of pregnancy. Women who seek emergency treatment for complications of abortion, whether they have had a spontaneous or induced abortion, are most often diagnosed with incomplete abortion.

Induced abortion refers to the termination of pregnancy through deliberate interference to end the pregnancy. Induced abortion may take place in a safe health care setting and in accordance with the law and health policy guidelines or it may occur outside of the health care system and the provisions of the law.

Inevitable abortion involves vaginal bleeding, abdominal cramping and progressive dilation of the cervix, with or without rupture of the membranes. It is impossible for the pregnancy to continue and eventual expulsion of the products of conception will occur.

Missed abortion occurs when the fetus dies and is retained in the uterus. The dead conceptus will be expelled eventually, although blood coagulation disorders may develop in cases of missed abortion which persist for more than 6–8 weeks.

Septic abortion

An abortion (loss of pregnancy during the first 22 weeks) that is followed by infection of the uterus and may spread throughout the genital tract causing fever and chills, foul-smelling vaginal discharge, pelvic pain and septicaemia. Septic abortion happens most commonly where facilities and standards are poor.

Spontaneous abortion refers to terminated pregnancy for which no deliberate steps have been taken to end the pregnancy. Spontaneous abortion, which is sometimes referred to as miscarriage, affects approximately 10–15% of all known or suspected pregnancies.

Threatened abortion involves vaginal bleeding with or without cervical dilatation. The symptoms may resolve and a viable pregnancy may continue. If the symptoms continue, the pregnancy will result in an inevitable, complete or incomplete abortion.

Unsafe abortion refers to the termination of pregnancy by persons lacking the necessary skills or in an environment lacking the minimal standards of care or both.

Abscess A localized collection of pus in any part of the body due to infection.

AIDS Acquired Immune Deficiency Syndrome.

Amnion The innermost of the membranes enveloping the baby in the uterus and which produces and contains the amniotic fluid.

Amniotic fluid The fluid produced and contained within the amnion. During the latter half of pregnancy it also contains fluid from the fetal lungs and kidneys. This fluid provides space for unimpeded fetal growth and, in late pregnancy and in labour, it equalizes the pressure exerted by contractions, equalizes the temperature and provides some nutritive substances for the fetus.

Amniotic fluid embolism This rare but often fatal condition is caused by amniotic fluid entering the maternal circulation via the uterine sinuses of the placental bed. It is most likely to occur in labour or in the immediate postpartum period, following very strong contractions. Symptoms and signs include cyanosis, chest pain, dyspnoea, blood-stained, frothy sputum, convulsions and collapse.

Amniotomy Surgical rupture of the fetal membranes to induce labour.

Anaemia A reduction in the number of red blood cells or in the amount of haemoglobin present in them. Anaemia can be caused by excessive blood loss, or by not eating enough foods rich in iron or folic acid. Other causes are excessive breakdown of red cells (e.g. in malaria), or failure to manufacture them

Analgesic A drug given to relieve pain.

Aneurysm A sac formed by the dilatation of the wall of an artery.

Anoxia A state of being deprived of oxygen.

Antepartum Before delivery.

Antepartum haemorrhage Bleeding from the genital tract at any time after the 22nd week of pregnancy and before the birth of the baby. There are two main causes of antepartum haemorrhage, placenta praevia and abruptio placentae.

Anterior Situated in front or directed towards the front.

Antero posterior From front to back.

Antibiotic Drugs derived from living micro-organisms which destroy or inhibit the growth of pathogenic bacteria. They are given to treat infection.

Antibody A protein produced in the body to fight micro-organisms or foreign substances which may enter the body. In pregnancy, maternal antibodies to specific conditions are transferred across the placenta to the fetus. This gives the baby a passive immunity to some diseases in the first few months of life.

Term	Definition
Anticonvulsant drug	A drug which controls convulsions.
Antihypertensive	A drug given to reduce high blood pressure.
Antipyretic	A drug given to reduce fever.
Antiseptic	A substance that prevents infection by killing certain bacteria on skin or body tissues. Antiseptics include surgical spirits, chlorhexidine and iodine.
Anuria	No urine is produced by the kidneys. This life-threatening condition may be associated with obstetric emergencies such as severe haemorrhage, eclampsia and septic shock.
Apex	The top or highest point.
Apnoea	Absence of breathing.
Aseptic technique or asepsis	Aseptic technique refers to special precautions taken to achieve a bacteria-free environment, e.g. at delivery or at surgical operations. Precautions include use of the correct hand-washing technique, correct use of sterile instruments and drapes, the wearing of appropriate clothing by staff, e.g. gown, cap and gloves.
Asphyxia	A condition in which there is a deficiency of oxygen in the blood and an increase in carbon dioxide. If the baby fails to breathe at birth, it suffers from asphyxia and requires urgent resuscitation.
Asymmetrical	Unequal size or shape of two normally similar structures. The pelvis may be asymmetrical if distorted by disease, injury or congenital malformation.
Atonic	Lack of muscle tone.
Atonic postpartum bleeding	Occurs from the placental site because the uterus is unable to contract adequately and thus the blood vessels are not compressed and bleeding is not controlled. Any condition that interferes with uterine contraction, such as a retained placenta, will predispose to atonic bleeding.
Augment	To increase: in augmented labour, oxytocin may be used to increase the effectiveness of contractions if progress is slow.
Avoidable factors	Factors causing or contributing to maternal death where there is departure from generally accepted standards of care.
Axilla	The armpit.

B

Term	Definition
Bacteria	Microscopic, unicellular organisms which, if pathogenic, can cause disease. They reproduce extremely quickly, thus can rapidly multiply in the body.
Bacteriuria	Presence of bacteria in the urine

Bandl's ring	The area between upper and lower uterine segments when it becomes visible and/or palpable during obstructed labour. It is caused by the extreme thickening of the upper segment and the dangerous thinning of the lower segment and is a sign of impending rupture of the uterus.
Bartholin's glands	Two small mucous-producing glands, one on each side of the vaginal orifice.
Bimanual compression of uterus	A manoeuvre to arrest severe postpartum haemorrhage after delivery of the placenta when the uterus is atonic. The right hand is inserted into the vagina and closed to form a fist which is placed in the anterior vaginal fornix. The left hand is pressed deeply into the abdomen behind the uterus, applying pressure against the posterior wall of the uterus. Pressure is maintained until bleeding is controlled.
Bolus	A dose of a pharmaceutical preparation which is given all at once.
Broad ligament	Two folds of peritoneum draped over the uterus which extend to the side walls of the pelvis and help to keep the uterus in its place. They contain the uterine tubes, parametrium, blood vessels and nerves.

C

Capsular decidua	The part of the decidua which lies over the developing embryo during the first 12 weeks of pregnancy.
Caput succedaneum	Swelling of the fetal scalp due to pressure from the cervix. The swelling may be exaggerated in obstructed labour.
Cavity	A hollow place or space in the body.
Cephalic presentation	The head (i.e. cephal) lies in the lower pole of the uterus.
Cephalopelvic disproportion	A misfit between the fetal head and the pelvis through which it has to pass. It may be caused by a small or abnormally-shaped pelvis, or a large or abnormal baby.
Cerebral haemorrhage	Bleeding in the brain due to a ruptured blood vessel.
Cerebrospinal fluid	The liquid contained inside the brain and around the spinal cord.
Cervical os	The internal os is the opening between the cervix and the body of the uterus and the external os is the opening between the cervix and the vagina. After effacement of the cervix in labour, there is only os and that lies between the lower segment of the uterus and the vagina.
Chorioamnionitis	Infection of the membranes that envelop the fetus in the uterus.
Chorion	The outermost of the two membranes which envelope the fetus in the uterus.
Chronic	Prolonged or permanent.

Circulatory overload Overloading the circulation. This may occur in cases of excessive intravenous infusion of fluids. It leads to respiratory problems due to an accumulation of fluid in the lungs and to cardiac failure.

Coagulation Formation of a blood clot.

Coagulation failure Disturbance of the coagulation system resulting in widespread formation of clots, mainly in the capillaries. Eventually haemorrhage occurs because all the clotting factors are depleted. These events result in ischaemic damage within the body organs and, unless urgent treatment is instituted, will result in death. It is triggered by certain conditions which introduce coagulation-promoting factors into the circulation, e.g. abruptio-placentae, severe pre-eclampsia and eclampsia, retained dead fetus after several weeks, amniotic fluid embolism and some very severe infections.

Coccyx The small bone at the end of the sacrum which is formed by four fused vertebrae. It forms a movable joint with the sacrum and moves backwards out of the way during vaginal delivery, thereby increasing the size of the pelvic outlet.

Coma A state of unconsciousness from which the person cannot be aroused. The person is said to be in a coma or comatose.

Contraction (of pelvis) Reduction in size.

Cortical necrosis Death of the outer part of the substance of an organ (e.g. the kidney).

Crepitations Dry, crackling sound.

Cross-matching (of blood) A test of the compatibility of donor and recipient blood performed before transfusion.

Crowning The moment during birth when the widest presenting diameter of the fetal skull distends the vaginal orifice and the head no longer recedes between contractions.

Cubital fossa The depression in the part of the arm which is in front of the elbow.

Cyanosis A bluish discolouration of skin and mucous membranes due to lack of tissue oxygenation.

Cystitis Infection of the urinary bladder.

D

Decidua The name given to the endometrium (innermost layer) of the pregnant uterus. The part of the decidua that is underneath the placenta is the decidua basalis. The part that lines the uterus elsewhere than at the site of placental attachment is the decidua vera or parietalis.

Deep vein thrombosis	The formation of a thrombus (clot) in a deep vein, most commonly in the leg or pelvis. It causes swelling and pain when walking. If a clot detaches itself from the wall of the vein it may be carried in the blood-stream to the heart or lungs causing collapse and, unless immediate resuscitation is successful, death.
Deficiency	A lack of.
Deflexed (head)	Erect head, rather than a flexed head with the chin on the chest. occurs in occipito-posterior positions and may cause prolonged labour because larger presenting diameters of the fetal head have to pass through the pelvis.
Deformity	Distortion of any part of the body. Malformation.
Dehydration	Condition caused by excessive loss of body fluid or by an inadequate intake of fluid. Signs of dehydration include dry mouth, thirst, sunken eyes, skin pinch goes back slowly and reduced urinary output.
Delirium	Disordered state of mind with incoherent speech, hallucinations and excitement. Commonly occurs with high fever.
Diameter	A straight line passing through the centre of a circle or sphere. A number of diameters of the pelvis and fetal skull are described and appropriate measurements given.
Differential diagnosis	Deciding which of two or more conditions may be the cause of symptoms and signs noted.
Direct obstetric death	A death resulting from obstetric complications of the pregnant state (i.e. pregnancy, labour and puerperium), from interventions, omissions, incorrect treatment, or a chain of events resulting from any of the above.
Disseminated intravascular coagulation	Disturbance of the coagulation system triggered by certain conditions (e.g. septic or haemorrhagic shock, eclampsia) and characterized by generalized bleeding. (See coagulation failure).
Distended	Stretched.
Distortion	The state of being twisted out of normal shape.
Diuresis	Passing increased amounts of urine.
Diuretic	A drug that is given to increase the production of urine.
Dorsal position	Lying on the back.
Drowsy	Half asleep, dozing.
Dysentery	Infection in the intestines due to bacteria or parasites, causing pain in the abdomen and frequent stools containing blood, pus or mucous.

E

Eclampsia — A condition peculiar to pregnancy or a newly delivered woman, characterized by fits followed coma. The woman usually has hypertension and proteinuria. The fits may occur in the antepartum, intrapartum or early postpartum periods.

Empathy — Intellectual and emotional awareness and understanding of another person's thoughts, feelings and behaviour, even those that are distressing and disturbing.

Endocarditis — Inflammation of the membrane lining the cavities of the heart.

Endometritis — Infection of the endometrium (inner lining of the uterus).

Endometrium — The innermost layer of the uterus.

Engorged breasts — Painful accumulation of secretion in the breasts, often accompanied by lymphatic and venous stasis and oedema at the onset of lactation. Frequent feeding and ensuring that the baby is correctly positioned at the breast helps to relieve the condition.

Epigastric — The upper middle region of the abdomen.

Episiotomy — A cut made in the perineum just before the head crowns to facilitate delivery. It should not be a routine procedure, but only performed for fetal distress to speed up the birth, before complicated vaginal deliveries, e.g. breech, shoulder dystocia, and for preterm infants to relieve the pressure on their soft skulls, thereby reducing the risk of cerebral injury.

Essential hypertension — High blood pressure occurring without discoverable cause.

Expansile — Capable of stretching.

Extend the knee — To straighten the leg.

Extension (head) — Lengthening. It is the opposite of flexion. Used to describe the mechanism by which the head is born, i.e. after flexion, the head extends to allow the forehead, face and chin to be born.

External — Situated on the outside.

F

False labour — Painful uterine contractions which are not accompanied by cervical effacement and dilatation. Contractions often irregular and cease spontaneously after a few hours.

Fatal — Ending in death.

Fetal sac — The bag of membranes which envelop the baby in the uterus.

Feto-maternal transfusion — Passage of fetal blood into the blood circulation of the mother, through the placenta.

Fibroids — A benign tumour of the myometrium (muscle of the uterus).

Fistula — An abnormal passage or communication between two organs such as, for example, the urinary bladder and the vagina, i.e. a vesico-vaginal fistula, or the vagina and the rectum, i.e.recto-vaginal fistula. It is a serious complication of obstructed labour and results in urinary or faecal incontinence. Operative repair is usually required.

Flexed — Bent forward.

Flexible — Pliant, i.e. bends easily.

Flexion (head) — Head is bent forward.

Fluctuating — Giving the sensation of wavelike motion on palpation, due to a liquid content (e.g. pus in an abscess).

Foaming — Collection of small bubbles formed in liquid by agitation; froth. Foaming at the mouth: occurs during a fit due to saliva and mucus bubbles.

Fontanelle — A membranous space on the baby's head where two or more sutures meet. Often called the 'soft spots.' The **anterior fontanelle** is the diamond-shaped membranous space on the front part of the head at the meeting of four suture lines. The **posterior fontanelle** is the small triangular membranous space on the back part of the head at the meeting of three suture lines.

Fundus — The rounded upper part of the uterus, above the insertion of the fallopian tubes.

G

Genital mutilation — The traditional surgical practice of cutting away part or all of the external genitalia of a woman. In the most extreme form, called "infibulation", the two sides of the vulva are also stitched together to leave a very small opening.

Genital tract — The pathway formed by the genital organs including the uterine tubes, uterus, cervix, vagina, vulva.

"Gishiri" cut — A traditional practice among the Hausa people of Nigeria whereby the vagina is cut to facilitate delivery when labour is obstructed.

Glycosuria — The presence of glucose (sugar) in the urine.

Grand mal epilepsy — A major epileptic fit followed by loss of consciousness.

Grand multiparity — A woman who has borne five or more children.

Groin — The junctional region between the abdomen and the thigh.

Grouping (of blood) — Determining blood type (A, B, O, AB).

H

Haematemesis — The vomiting of blood.

Haematocrit — The percentage volume of packed red cells in a blood specimen. This measurement is obtained by centrifugation (spinning very fast) of the specimen. It is a screening test for anaemia.

Haematoma — A localized collection of blood in an organ or tissue due to blood leaking from a blood vessel.

Haemoglobin — The substance in red blood cells which carries oxygen from the lungs to the tissues.

Haemoglobinopathies — Disorders of the blood caused by abnormal forms of haemoglobin (e.g. sickle cell anaemia, thalassaemia). Severe anaemia occurs in these conditions.

Haemolytic anaemia — Anaemia caused by destruction of red blood cells, as in malaria. Haemolytic disease of the newborn may occur as a result of rhesus incompatibility. These babies may require an exchange transfusion after birth.

Haemorrhage — Excessive bleeding from a torn or severed blood vessel. It may occur externally or within the body.

Hemiplegia — Paralysis of one side of the body.

HIV — Human immune deficiency virus.

Hollow (of the sacrum) — The concave anterior surface of the sacrum.

Humerus — The bone that extends from the shoulder to the elbow.

Hydatidiform mole — An abnormal pregnancy resulting in a mass of cysts resembling a bunch of grapes. Termination of pregnancy is required and follow-up is essential because of the risk of chorion carcinoma developing.

Hydration — The absorption of or combination with water.

Hydrocephalus — A condition characterized by accumulation of cerebrospinal fluid within the ventricles of the brain. The baby with hydrocephalus has an enlarged head and a prominent forehead. Severe cases are incompatible with life, but mild cases may be treated by an operation which diverts excess fluid from the brain into the blood stream.

Hyperemesis gravidarum — Excessive vomiting during pregnancy. It is a serious condition which causes dehydration and ketosis and the woman will deteriorate quickly unless appropriate treatment is given. Liver and renal damage may occur leading to coma and death.

Hypertension — High blood pressure.

Hypertonic — Excessive tone. Hypertonic uterine contractions are abnormal and extremely painful, with only a short interval between them. Usually result in fetal distress and may cause rupture of the uterus. Often associated with prolonged and difficult labour, or excessive use of oxytocic drugs to augment or induce labour.

Hyponatraemia — Insufficient sodium (salt) in the blood.

Hypovolaemia	Abnormally low volume of blood circulating in the body. This can happen when the body loses a lot of blood (e.g. in postpartum haemorrhage).
Hypoxia	A diminished oxygen supply to the tissues.

I

Idiopathic	With no known cause.
Idiopathic thrombocytopenia purpura	Condition of unknown cause characterized by a decrease in the number of blood platelets resulting in inability of the blood to coagulate properly.
Imminent	Soon to happen.
Incision	A surgical cut.
Indirect obstetric death	A death resulting from previous existing disease or disease which developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated (or made worse) by the physiological effects of pregnancy.
Induced labour	A labour that is started artificially by the use of oxytocic drugs and/or by rupturing the membranes.
Infarct	An area of necrosis (dead tissue) in an organ caused by local ischaemia, (i.e. poor blood supply). Placental infarcts may be seen, especially in cases of hypertension in pregnancy.
Infertility	Difficulty or inability to conceive.
Infiltration (of local anaesthetic)	Method of injecting a local anaesthetic into the tissues. Infiltration of the perineum is carried out before an episiotomy is made.
Internal	On the inside.
Intrapartum	Occurring during childbirth.
Intraperitoneal	Within the peritoneal cavity.
Intrauterine death	Death of the fetus in the uterus.
Intrauterine growth retardation (IUGR)	Poor fetal growth in the uterus. The reason is not always known, but it is more likely in cases of malnutrition, anaemia, pre-eclampsia, malaria, tuberculosis and in women who smoke.
Involution of the uterus	Uterus returning to normal size after delivery. Involution occurs by autolysis, (i.e. breaking down) and ischaemia (i.e. reduced blood supply) of excess muscle fibres. It starts soon after birth and is completed within about six weeks.
Ischial spines	The two small protuberances of the pelvis that project into the pelvic cavity and can be felt laterally upon vaginal examination.

Isthmus — The narrow connection between the body of the uterus and the cervix.

K

Ketoacidosis — A state of electrolyte imbalance with ketosis and lowered blood pH. It may occur in labour if the woman becomes dehydrated and ketotic. The woman with ketosis has sweet or fruity odour to her breath. Treatment is to rehydrate the woman, giving adequate fluid and carbohydrate.

Ketonuria — The presence of ketone bodies in the urine.

Kyphosis — Abnormally increased convexity in the curvature of the thoracic spine as viewed from the side.

L

Laparotomy — Incision through the uterine wall to enter the peritoneal cavity.

Lateral — To the side.

Leukopenia — An abnormal decrease in the number of white blood cells which are the cells in the blood which fight infection.

Liquor — Another word for amniotic fluid.

Lithotomy poles — Special poles attached to either side of a delivery bed or theatre table. They have slings which are used to support the woman's legs during certain procedures which are carried out in the genital area, e.g. vacuum extraction, perineal suturing.

Lithotomy position — The woman lies down on her back with legs wide apart and supported by the slings which hang on the lithotomy poles.

Lochia — The discharge from the uterus after childbirth. It consists of blood, mucus, shreds of decidua and other debris from the uterus. During the first 2–3 days it consists mainly of blood, then changes to a pinky/brown colour and contains more serous fluid. Finally it changes to a whitish colour and consists mainly of white blood cells and mucus. The lochia lasts for 2–3 weeks after the birth. Persistent red, profuse lochia may be associated with retained products of conception. Foul-smelling lochia is a sign of infection.

Loin — The part of the back between the thorax and the pelvis.

Lumbar puncture — The procedure whereby a hollow needle is inserted into the subarachnoid space between the third and fourth lumbar vertebrae to obtain a specimen of cerebrospinal fluid for examination, and to measure the pressure within the fluid. It may also be carried out for spinal anaesthesia.

M

Malar bones — The cheek bones.

Malnutrition — Inadequate nourishment resulting from a poor diet or from a defect in metabolism that prevents the body from using its food properly. The symptoms of malnutrition are physical weakness, lethargy and a sense of detachment from reality. In starvation there may be oedema, abdominal distension and excessive loss of weight. In addition there are signs of multiple vitamin deficiency.

Marginal — Borderline.

Mastitis — Infection of the breast. A wedge-shaped area of the breast becomes tender, red and hot and the woman feels generally unwell. The infection responds well to treatment with antibiotics. If untreated, it may lead to breast abscess.

Mastoiditis — Infection of the bone behind the ear. This can be a complication of otitis media (middle ear infection).

Meconium — A dark green material present in the intestines of the full-term fetus. It consists of bile-pigments and salts, mucus, epithelial cells and often some amniotic fluid. It is the first stool passed by the baby and continues for a day or two. Occasionally it is passed in utero when it may be a sign of fetal distress.

Median — Situated in the midline of a body or structure.

Median cubital vein — The vein situated in the midline of the cubital fossa.

Medical audit — Official examination of medical records.

Meningitis — Infection of the membranes enveloping the brain.

Mental retardation — Delayed mental development.

Mento vertical diameter — The distance between the chin and the vertex (highest point) of the head.

Mid-biceps — Halfway down the biceps (the muscle on the inside of the upper arm).

Monoplegia — Paralysis of one limb (arm or leg).

Moulding (of the fetal head) — Overlapping of fetal skull bones at the sutures and fontanelles to allow the bones to adapt to the pelvis through which it is passing. The presenting diameter is decreased and the diameter at right angles increased. If moulding is excessive (e.g. in obstructed labour), in the wrong direction, as occurs in malpositions and malpresentions, or occurs too quickly, there is a danger of intracranial haemorrhage.

Multipara — A woman who has borne more than one viable child.

Multiple pregnancy — A pregnancy of more than one fetus, such as in the case of twins or greater multiples.

Myometrium	The muscle layer of the uterus.

N

Nape	The back of the neck.
Necrosis	Death of tissues.
Normal saline	A solution of 0.9% sodium chloride (salt) that may be given in an intravenous infusion.
Nullipara	A woman who has never borne a viable child.

O

Obesity	Excessive fat throughout the body. Weight gain increases beyond that which is considered desirable with regard to age, height and bone structure. In pregnancy the obese woman is at greater risk of complications such as hypertension.
Oblique	Slanting, inclined, diagonal.
Obstructed labour	A labour in which progress is arrested by mechanical factors and delivery is impossible without operative intervention.
Occipito frontal diameter	The distance between the bridge of the nose and the occipital protuberance (i.e. the prominence which can be felt on the occipital bone at the back of the head). It is the presenting diameter when the head is deflexed and measures 11.5 cm.
Occiput	The area of the head which lies below the posterior fontanelle to the junction with the neck.
Oedema	An excess of fluid in the tissues of the body. It causes excessive weight gain and swelling which pits on pressure. In pregnancy it is a common feature affecting the feet and ankles, but may also affect the hands, face and become generalized. It is no longer considered a significant sign of pre-eclampsia because some oedema is a common feature in so many pregnancies.
Offensive	Smelling very bad.
Oliguria	Diminished secretion of urine. It may be associated with impaired renal function following severe complications such as haemorrhage, pre-eclampsia and eclampsia and septic shock.
Os	An opening A bone.
Osteomalacia	Adult rickets. It is caused by a gross deficiency of vitamin D which results in painful softening of the bones.
Otitis media	Infection of the middle ear. Usually happens as a complication of an upper respiratory tract infection. Symptoms include pain in the ear and fever.

Oxygen — A colourless, odourless gas which is essential for life. It constitutes 21% of the atmosphere and is drawn into the lungs during the process of breathing. It then circulates in the blood to oxygenate all the tissues of the body. Lack of oxygen, (hypoxia) causes cyanosis , when the skin and mucous membranes have a bluish colour. Anoxia (no oxygen) causes death and is a common cause of perinatal death.

Oxytocic — Term applied to any drug which stimulates contractions of the uterus in order to induce or accelerate labour, or to prevent or treat postpartum haemorrhage.

P

Parametritis — Infection of the parametrium.

Parametrium — Connective tissue around the lower part of the uterus. It fills in the spaces between the uterus and related organs.

Parity — The number of viable children a woman has borne.

Partograph — A record of all of the clinical observations made on a woman in labour, the central feature of which is the graphic recording of the dilatation of the cervix, as assessed by vaginal examination, and descent of the head. It includes an alert and action line which, if crossed when recording cervical dilatation, indicates that labour is progressing more slowly than normal and intervention is required.

Patella — The bone situated at the front of the knee, forming the kneecap.

Pathogenic — An agent or microorganism which causes disease, e.g. pathogenic bacteria.

Pelvic brim (or inlet) — The pelvic brim is the first part of the true pelvis to be negotiated by the fetus. As a general rule, if the fetal head can enter the pelvic brim, it should be able to pass through the rest of the pelvis.

Pelvic inflammatory disease (PID) — An infection of the reproductive organs (uterus, fallopian tubes, ovaries, parametrium). The infection may follow delivery or abortion, or it may be secondary to other infections of the genital tract or abdomen, or be a blood borne infection, e.g. tuberculosis. Symptoms include lower abdominal pain, fever, and vaginal discharge. Unless treated early and effectively with antibiotics, the fallopian tubes may be blocked and lead to secondary infertility. The condition may also become chronic.

Pelvic outlet — The diamond-shaped bony outlet of the pelvis through which the fetus passes at birth.

Pericarditis — Inflammation of the sac (pericardium) which surrounds the heart.

Perimetrium — The outermost layer of the uterus. It is draped over the uterus like a sheet and extends to the side walls of the pelvis forming the broad ligaments.

Perinatal — Around the time of birth.

Perineum — The area extending from the pubic arch to the coccyx, with underlying tissues. In obstetrics the perineal body is the fibromuscular pyramid between the lower third of the vagina anteriorly and the ischial spines laterally. In the second stage it thins and stretches during the birth of the baby and, in some cases, is torn.

Peritoneal cavity — The space containing the internal organs of the abdomen.

Peritoneum — Membrane covering the internal organs of the abdomen and lining the abdominal and pelvic cavity.

Peritoneum, parietal — Peritoneum lining the abdominal and pelvic cavity.

Peritoneum, visceral — Peritoneum that covers the abdominal organs, holding them into position.

Peritonitis — Infection of the peritoneum.

Persistent occiput posterior — The fetus has its occiput (i.e. back of head) directed towards the back of the maternal pelvis. Usually the head flexes and rotates to an anterior position, but a persistent occipito-posterior position fails to rotate and the baby is delivered face to pubes. Labour is often more difficult in these cases because wider diameters of the fetal head have to pass through the pelvis, contractions may be less effective, cervical dilatation slower, descent of the fetus delayed and injuries to mother and child are more common.

Photophobia — When light hurts the eyes.

Physical disability — A physical defect which may limit the individual's capacity to participate fully in normal life.

Pivot — To turn or swivel on a central point.

Placenta praevia — An abnormally situated placenta in the lower segment of the uterus which completely or partly covers the os (the opening between the uterus and the cervix). The stretching of the lower segment of the uterus during the last trimester of pregnancy causes some placental separation from the uterine wall. As a result episodes of vaginal bleeding occur which are typically painless. The danger is that the woman will have a catastrophic haemorrhage during late pregnancy.

Placental abruption — Premature separation of a normally-situated placenta, that is a placenta in the upper segment of the uterus, which occurs after the 22nd week. In this case there may be abdominal pain as well as bleeding. If the bleeding is concealed, i.e. collects behind the placenta, the abdomen will feel hard and be very painful. Shock may be severe and fetal distress is common.

Pleurisy — Infection of the membrane covering the lungs and lining the walls of the chest.

Polyhydramnios — A condition characterized by an excess of amniotic fluid. It is associated mainly with multiple pregnancy, fetal abnormality, diabetes and hydrops fetalis, a rare condition caused by severe haemolytic disease.

Polyuria	Excessive urination.
Posterior	Situated at the back of, or in the back part of, a structure.
Postpartum	After labour.
Postpartum haemorrhage	Blood loss of 500 ml or more from the genital tract after delivery. The commonest cause is atony (poor muscle tone) of the uterus, or it may be caused by trauma to the genital tract, e.g. tears of the vagina, cervix, or lower segment of the uterus. Postpartum haemorrhage is the commonest cause of maternal death.
Potency	The power of a medicinal agent to produce its desired effect.
Pouch of Douglas	The pocket like space between the rectum and the uterus.
Pre-eclampsia	A condition specific to pregnancy, arising after the 20th week of gestation, characterized by hypertension and proteinuria. Oedema may also be present, but is no longer considered a cardinal sign because it is present to some extent in most pregnancies. If not controlled, pre-eclampsia will lead to eclampsia which is characterized by fits, followed by coma, and has a high mortality rate.
Pre-term baby	A baby who is born before the 37th completed week of pregnancy.
Precipitate labour	Labour which progresses unusually quickly.
Primary postpartum haemorrhage	Excessive bleeding from the genital tract in the first 24 hours after delivery. The amount of blood is 500 ml or more.
Primigravida	A woman pregnant for the first time.
Primipara	A woman who has borne one viable child.
Prolonged labour	Labour which exceeds 12 hours.
Prolonged rupture of membranes	Ruptured membranes for more than 18 hours, regardless of whether labour has started or not.
Prophylactic	An agent which is used to try and prevent disease.
Prophylactic antibiotic treatment	Giving antibiotics to prevent infection.
Proteinuria	Presence of protein in the urine. Causes are contamination by vaginal discharge, infection or pre-eclampsia. It should always be investigated because, if due to pre-eclampsia, it is a serious sign. If caused by infection, treatment with antibiotics is required.
Pubic arch	The curved bowlike bony structure which lies at the front of the pelvis.
Puerperal sepsis	An infection of the genital tract at any time between the onset of rupture of membranes or labour and the 42nd day following delivery or abortion.

Puerperium The 42–day period following delivery of the baby. Another word meaning the same is “postpartum period”.

Pulmonary embolism The blood circulation in the lungs is blocked by an embolus (blood clot).

Pulmonary oedema Accumulation of fluid in the lungs.

Purpura Small haemorrhage in the skin.

Pyelonephritis Infection of the kidneys due to bacteria that have come up from the bladder after entering through the urethra.

R

Rales A rattling sound heard when listening to lungs that are diseased.

Recumbent position Lying down.

Resistant bacteria Bacteria which are not killed by a drug that usually kills that kind of bacteria.

Resuscitation Bringing back to life or consciousness a person who is apparently dead.

Retained placenta Describes the situation when the placenta has not been delivered within 30 minutes after the birth of the baby.

Retracted Drawn back.

Retroplacental Behind or underneath the placenta.

Reversal A turn or change in the opposite direction.

Rhesus factor An antigen present on the red blood cells of most people. Those having this antigen are classified “rhesus positive”. Those that do not have it are “rhesus negative”. Rhesus incompatibility occurs when the mother is “rhesus negative” and the fetus is “rhesus positive”.

Rickets Softening of bones due to vitamin D deficiency during childhood.

Risk factor Factors which make a condition more likely to happen or more dangerous.

Rotation (of fetal head) The movement of the fetal head as it descends through the birth canal.

Rupture Tearing or bursting of a structure, e.g. rupture of uterus following obstructed labour.

Ruptured uterus Tearing or bursting of the uterus due to obstructed labour.

S

Sacral promontory The part of the first sacral vertebra which projects into the pelvic inlet.

Sacrum — The lowest part of the spine. It is formed by five sacral vertebrae.

Sagittal suture — The membranous line between fetal skull bones (parietal bones) running from the posterior fontanelle to the anterior fontanelle.

Sanitation — The establishment of conditions favourable to health. It includes the safe disposal of faeces by the use of adequate latrines, to avoid the transmission of diseases.

Scoliosis — A lateral deviation in the normally straight vertical line of the spine.

Secondary postpartum haemorrhage — Includes all cases of PPH occurring between 24 hours after delivery of the baby and 6 weeks postpartum.

Segment — A section or a part of something.

Self-retaining catheter — A catheter that is left *in situ* in the bladder.

Semiprone position — Lying down on the left side.

Semi-recumbent position — Lying down with head and shoulders raised up.

Septic shock — A very serious infection of the blood stream causing high fever, low blood pressure, fast pulse and fast breathing. Untreated septic shock leads to coma and death.

Septicaemia — The presence and multiplication in the blood of harmful microorganisms in the blood, causing high fever and chills. Untreated, septicaemia can lead to shock and death.

Shock — A life-threatening condition characterized by failure of the circulatory system to maintain normal blood flow to vital organs (e.g. kidneys, heart brain).

Haemorrhagic shock is shock due to low blood volume resulting from excessive blood loss.

Septic shock is shock due to overwhelming infection and results from the action of the pathogenic bacteria on the vascular system.

Sinciput — The brow, or forehead.

Sinusitis — Infection in the sinuses (air cavities in the cranial bones on either side of the nose and above the eyes).

Sitz bath — Soaking of the genital area in a tub of clean warm water. This may be done in the postpartum to soothe pain from an episiotomy or perineal tear.

Smear — A specimen of superficial cells, e.g. from the cervix or vagina, which can be examined microscopically and gives information about the level of hormones or early malignant disease.

Sodium lactate — A solution of sodium lactate, sodium chloride, potassium chloride and calcium chloride which can be given via an intravenous infusion.

Sonar — A term for ultrasound in medical diagnosis.

Spasms Sudden, strong, involuntary muscular contractions.

Specific gravity Relative weight of any kind of matter (e.g. urine), expressed by the ratio of the weight of a certain volume of that matter to the weight of the same volume of water. The specific gravity of water is 1.

Specimen A sample or part of a thing taken to determine the character of the whole e.g. specimen of urine.

Splint A strip of rigid material such as wood, used to keep in place a movable body part.

Sputum Matter ejected from the lungs, bronchi and trachea, through the mouth.

Stasis (of urine) Standing still, not flowing properly.

Stat A medical abbreviation meaning "at once".

Statistics A collection of numerical facts.

Status Social position, relative importance of a person.

Stenosis (of vagina) Narrowing of the vagina which is usually due to scarring caused by genital mutilation or unrepaired lacerations.

Stillbirth A baby that is delivered dead (after the 22nd week of pregnancy).

Stillborn A baby that is delivered dead.

Stunted growth When a person is short, often because of insufficient food intake during childhood.

Subarachnoid haemorrhage Bleeding within the membranes enveloping the brain due to a ruptured blood vessel.

Subinvolution (uterus) The uterus is not reducing in size normally, (i.e. is slow to involute) during the early postpartum period.

Suboccipitobregmatic diameter (of head) The distance from beneath the occiput to the anterior fontanelle.

Symphysiotomy A surgical incision of the symphysis pubis to widen the pelvic outlet when there is cephalopelvic disproportion. It is an alternative emergency procedure when facilities for safe caesarean section are not available.

Symphysis pubis The cartilaginous area where the two pubic bones join at the front of the pelvis

T

Talipes Clubfoot. A congenital abnormality when the foot has developed at an abnormal angle to the leg.

Tenderness Painful when palpated.

Term baby Baby born between 37 and 42 completed weeks of pregnancy.

Testicles/testes

The two glands in the scrotum which produce spermatozoa and male sex hormones.

Tetanus

A disease caused by microorganisms found in the soil and dust which is spread by animal and human faeces. The micro-organisms enter the body through a break in the skin and cause a severe condition with muscle spasm and convulsions leading to death. Because stiffness of the jaw is often the first symptom, it is also known as lockjaw. This severe disease can be prevented by adequate immunization with tetanus toxoid.

Thorax

The chest.

Thrombophlebitis

Inflammation of a superficial vein together with clot formation. In these cases the clot rarely separates from the wall of the vein and so the risk of embolism is small.

Thrombosis

The formation of a blood clot. This occurs in the deep veins and if the clot becomes detached from the vessel wall, there is a serious risk of embolism leading to death.

Tocolytic agent

An agent that stops uterine contractions, e.g. ritodrine hydrochloride, salbutamol.

Traditional birth attendant (TBA)

Name given to a person who traditionally assists women in childbirth at community level. Most are illiterate and become birth attendants without training, but efforts are now being made to give them basic training for a few weeks, and to encourage them to use basic but essential birthing kits. They are not considered as a “skilled birth attendant” but do have an important role to play in the community - to be linked to skilled birth attendants.

Transient

Temporary, not lasting a long time.

Trauma

Injury.

Traumatic bleeding

In obstetrics, occurs as a result of injury to the genital tract.

Tumour

A new growth of tissue which could be benign (harmless) or cancerous.

Twitch

Sudden, small, involuntary contractions.

U

Ultrasound

Sound at frequencies above the upper limit of normal hearing which is used in obstetrics (and other branches of medicine) in the technique of ultrasonography. It is used to assess the maturity and size of the fetus, locate the site of the placenta, diagnose fetal abnormalities and pelvic tumours.

Umbilical cord

The cord which connects the fetus to its placenta. Nourishment and oxygen pass along the umbilical vein from the placenta to the fetus. Waste products pass from the fetus to the placenta via two umbilical arteries.

Uraemia	An excess of urea in the blood. It is one of the signs of chronic kidney failure.
Utero vesical pouch	The pocket-like space between the uterus and the bladder.
Uterus inversion	The uterus is turned inside out, with the fundus of the uterus being forced through the cervix and protruding into or right outside of the vagina. It is a serious obstetric emergency which leads to severe shock. The uterus must be replaced as quickly as possible.

V

Vacuum extraction	A procedure in which a metal or plastic cup is attached to the baby's head by creating a vacuum. By gently pulling on the chain leading to the cup during contractions, the baby's head gradually descends through the birth canal. It is important to check that there is no cephalo-pelvic disproportion before attempting a vacuum delivery.
Vaginal fornix	The space formed between the vaginal wall and the part of the cervix which projects into the vagina. There are four fornices, the anterior, posterior and two lateral fornices.
Varicose veins	Veins that are abnormally tortuous and distended. If painful during pregnancy, the woman should be advised to wear support stockings which should be applied before the woman rises to her feet in the morning, and to rest with her legs elevated above the level of the heart.
Venepuncture	The puncture of a vein to get a blood sample or to set up an intravenous infusion.
Vertex	The area of the head between the anterior and posterior fontanelles and the two parietal eminences (i.e. bumps on each side top of the head. In normal labour when the head is well-flexed, the vertex presents.
Virus	Small infective agent which grows and reproduces in living cells. Viruses may cross the placenta in pregnancy and cause fetal abnormalities, especially in the first trimester.
Vitamins	Essential food substances. Vitamins A, all of the B's, C, D, E and K are essential to nutrition and health and deficiencies cause a variety of health problems.

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Waddling gait	Walking with an exaggerated elevation of the hips (rather like a duck walks).
Water intoxication	The condition caused by excess fluid in the circulation and insufficient sodium. It may be caused by over-transfusion and can lead to nausea, vomiting and, in severe cases, convulsions, coma and death.

APPENDIX:

DEFINITIONS AND BACKGROUND INFORMATION FOR TEACHERS AND STUDENTS

This appendix includes definitions and background information on:

- Postpartum haemorrhage
- Obstructed labour
- Puerperal sepsis
- Eclampsia and pre-eclampsia
- Abortion

The appendix also includes tables that provide a summary of what midwives should know and do in order to prevent women dying from the above conditions.

Abortion: is the death and expulsion of the fetus from the uterus either spontaneously or by induction before the 22nd week of pregnancy. The specific number of weeks may vary from one country to another, depending on local legislation.

Spontaneous abortion: spontaneous onset of labour and evacuation of the fetus before it is considered viable, e.g. 22 weeks.

Threatened abortion: is presumed to occur when vaginal bleeding takes place in a pregnant woman during the first 22 weeks of pregnancy. If a gentle speculum examination is done after bleeding stops, the cervical os is seen to be closed. There may be backache and slight abdominal pain, but the membranes remain intact.

Inevitable abortion: means that it is impossible for the pregnancy to continue. There is often severe vaginal bleeding because a large area of the placenta has detached from the uterine wall. It is accompanied by acute abdominal pain which is similar to the pattern of uterine contractions in labour (it is intermittent). The cervix dilates and either the complete fetal sac is expelled, or part, usually placental tissue, is retained.

Complete abortion: means that all the products of conception - embryo/fetus, placenta and membranes - are expelled. This is more likely to occur in the first 8 weeks of pregnancy.

Incomplete abortion: means that although the fetus is expelled, part or all of the placenta is retained. There is severe bleeding, although the pain may stop. The cervix will be partly closed. This is more likely to occur in the second trimester of pregnancy.

Induced abortion: occurs as a result of interference which may be medical, surgical or result from the use of herbal preparations or other traditional practices which cause the uterus to expel or partly expel its contents. Induced abortion may be legal or illegal according to the law in the country.

Legal abortion: is carried out by a medical practitioner, approved by the law of the country, who terminates a pregnancy for reasons permitted under the law. There may also be requirements that such a procedure is carried out in an approved manner, and in an approved place or institution. Midwives should be familiar with the law of their country with regard to abortion. In some countries abortion is illegal whatever the reason or situation.

Illegal abortion: means any abortion which is performed by any person who is not permitted under the relevant law of the country to carry out such a procedure. There is a very high risk of sepsis and/or haemorrhage as well as other injuries.

Septic abortion: may occur following any kind of abortion but is more common following illegal abortion and incomplete abortion. Infection will first occur in the uterus but will rapidly spread to the fallopian tubes, pelvic organs and peritoneum and will cause septicaemia if not promptly treated. There will be fever, rapid pulse, headache, lower abdominal pain and profuse and offensive lochia leading to septic shock if not treated promptly and effectively.

Other types of abortion are:

Habitual or recurrent abortion: when a woman has had three or more consecutive pregnancies ending in spontaneous abortion. This may be associated with an incompetent cervix, or with general or pelvic disease. Previous trauma to the cervix may be the cause. Often the cause is unknown.

Missed abortion: describes a pregnancy where the fetus has died but the fetal tissue and placenta are retained in the uterus. Abdominal pain and vaginal bleeding will stop and the signs of pregnancy will disappear. The woman may have a brown vaginal discharge. If the dead tissue is retained in the uterus for more than 6–8 weeks there is a risk of the woman developing coagulation disorders which will result in serious bleeding problems.

Sometimes a missed abortion proceeds to form a blood mole where the fetus and placenta are surrounded by clotted blood within the capsular decidua. It usually occurs in the first trimester. If a blood mole is retained in the uterus for some months, the fluid becomes absorbed and the fleshy hard mass which remains is called a carneous mole. The fetus may still be found in the centre of this mass on histological examination.

Eclampsia and pre-eclampsia

Eclampsia: is a very serious complication of pregnancy and is characterized by convulsions and coma. It may be preceded by signs of pre-eclampsia or the onset may be rapid and sudden. Eclamptic fits can occur in pregnancy, labour or soon after delivery. The fits are similar to epileptic fits and there is a high mortality rate associated with eclampsia.

Pre-eclampsia: is characterized by hypertension and proteinuria occurring after the 20th week of pregnancy. Hypertension is a blood pressure of 140/90 mm Hg or above. In severe pre-eclampsia the diastolic blood pressure is usually 110 mm Hg or above and there may also be one or more of the following symptoms: severe headache, blurred vision, nausea and/or vomiting, abdominal pain and a diminished urinary output, i.e. oliguria. Unless effective treatment is instituted quickly, the condition will deteriorate and eclampsia occurs.

Obstructed labour:

refers to a situation when the descent of the presenting part is arrested during labour due to an insurmountable barrier. This occurs in spite of strong uterine contractions and further progress cannot be made without assistance. Obstruction usually occurs at the brim but it may occur in the cavity or at the outlet of the pelvis.

Obstructed labour is due to mechanical factors which may be anticipated, such as cephalopelvic disproportion which can result from problems such as malnutrition, stunted growth, or pregnancy in the young teenager. Unless urgent and correct treatment is given obstructed labour will result in ruptured uterus which carries a high risk of maternal and fetal death

Postpartum haemorrhage: is defined as excessive bleeding from the genital tract at any time after the birth of the baby up to 6 weeks. Primary postpartum haemorrhage refers to bleeding within 24 hours of delivery, and secondary postpartum haemorrhage refers to bleeding after 24 hours and within 6 weeks.

The amount of blood loss which is described as a postpartum haemorrhage is 500 ml or more, or any smaller loss which causes deterioration in the woman's condition. It must be remembered that a much smaller loss will adversely affect the condition of a woman who is already anaemic.

Postpartum haemorrhage may be caused by an atonic uterus which fails to contract and compress the blood vessels in the normal way. This can easily occur when the uterus has been overstretched, as in grand multiparity, twin pregnancy or polyhydramnios. It is also associated with retained products, prolonged labour, precipitate labour, placental abruption, placenta praevia and general anaesthesia. A full bladder and mismanagement of the third stage may also cause bleeding. A woman can bleed at the rate of 500 ml per minute, and in 10 minutes she could lose all the blood in her body. Therefore skilled and urgent management is essential to save the life of a woman with postpartum haemorrhage.

Postpartum haemorrhage may be traumatic due to injury to the genital tract. This includes lacerations of the uterus, cervix, vaginal walls or external genitalia, including episiotomy wounds.

Puerperal sepsis: refers to infection of the genital tract which usually starts 24 hours or more after delivery. It may be localized in the perineum, vagina, cervix or uterus but can rapidly become widespread causing parametritis, peritonitis and septicaemia as it enters the bloodstream. This may be further complicated by septic shock and coagulopathy (clotting failure) which gives rise to bleeding problems.

Causative organisms include streptococci, staphylococci, Escherichia coli, clostridium tetani or welchii. The woman usually has a fever but this may not always be the case in clostridial infections. The uterus is tender, lochia offensive and lacerations or suture line may discharge pus. A woman who is anaemic, malnourished, has been in prolonged labour, has extensive lacerations, has not been immunized against tetanus, has a poor standard of hygiene or who has been subjected to traditional practices which may introduce organisms into the vagina, is at very great risk of puerperal sepsis. Puerperal sepsis can rapidly be fatal.

To prevent death from postpartum haemorrhage

What midwives should know:

- Postpartum haemorrhage is the most important single cause of maternal deaths and accounts for the highest proportion (25%) in the developing world.
- A Postpartum Haemorrhage (PPH) is defined as the loss of 500 ml or more of blood from the genital tract after delivery.
- Women with anaemia, prolonged labour, eclampsia, antepartum haemorrhage or intrapartum sepsis may tolerate badly a postpartum blood loss of less than 500 ml.
- Primary PPH refers to the occurrence of bleeding within 24 hours of delivery.
- Secondary PPH includes all cases of PPH occurring between 24 hours after delivery and 6 weeks postpartum.
- Retained placenta describes a situation in which the placenta has not been delivered within one hour after the birth of the baby.
- The most common causes of primary PPH are retained placenta (or placental tissue fragments) and uterine atony followed by vaginal or cervical lacerations and episiotomy.
- The causes of secondary PPH include retained placental tissue and infection.
- The main risk factors that make PPH more likely include: a history of previous third stage complications, a previous caesarean section, multiple pregnancy, high parity, anaemia, operative delivery, prolonged obstructed labour, induced labour, precipitate labour, placenta praevia, abruptio placentae.
- Because of the short interval from onset of PPH to death, quick access to health facilities is crucial for the prevention of maternal death from PPH.
- Maternal mortality from PPH is higher among women of low socioeconomic status because of lower health service utilization and less awareness of risk factors associated with PPH.
- Traditional beliefs and practices regarding blood loss after delivery and the management of the third stage of labour can affect the occurrence of PPH.

What midwives should do:

- Estimate correctly the amount of blood lost from the genital tract after delivery.
- Actively manage the third stage of labour.
- Remove the placenta manually, if retained.
- In case of PPH, massage the uterus to promote contraction, give an oxytocic drug, start an intravenous infusion, add an oxytocic drug to the infusion if bleeding persists, empty bladder, perform bi-manual or aortic compression and refer for further resuscitative measures and blood transfusion.
- Recognize and follow up pregnant women at high risk of PPH.
- Prevent, diagnose and treat anaemia.
- Set up emergency plans with village TBAs/auxiliaries to deal with postpartum haemorrhages.
- Educate the community about the seriousness of PPH, the need for speed in referral, and risk factors that make PPH more likely.
- Provide family planning services for women at high risk of PPH.
- Supervise TBAs, discourage traditional practices that increase the risk of PPH and educate them on the need for speedy referral in case of PPH.

To prevent death from obstructed labour

What midwives should know:

- Eight per cent of all maternal deaths are due to obstructed labour.
- Data on mortality from obstructed labour are not complete because many of these deaths are classified under sepsis, PPH, obstetric shock or ruptured uterus.
- Obstructed labour in surviving women frequently causes the debilitating condition of vesico-vaginal fistula and other obstetric fistulae.
- Obstructed labour may result from cephalopelvic disproportion (CPD) due to pelvic contraction. This can be caused by stunted growth from malnutrition and untreated infections in childhood and adolescence, by too early a start in childbearing before growth of the pelvis is complete, or by osteomalacia or rickets.
- Obstructed labour may also be caused by malpresentation or an abnormal fetus.
- The cultural causes of obstructed labour include childbearing at a young age, and traditional beliefs and practices regarding prolonged labour that may lead to delays in seeking medical help.
- Health services factors that affect maternal mortality from obstructed labour include the coverage of maternity care in the area, accessibility of health facilities, use of the partograph by staff and availability of blood for transfusion and operative facilities.

What midwives should do:

- Ensure all women at risk of obstructed labour are booked for delivery into a high level health facility, with operating facilities and blood transfusion service, e.g. a young teenager, bad obstetric history, history of rickets, osteomalacia, very short stature.
- Use a partograph during labour.
- Participate in emergency treatment of a woman in obstructed labour.
- Educate communities about the dangers of prolonged labour and the need for speedy referral.
- Educate women (and their families) who have had a caesarean section for obstructed labour about the reasons for the operation and the need for hospital care in a future pregnancy.
- Provide family planning services for women who have had a caesarean section for obstructed labour.

To prevent death from puerperal sepsis

What midwives should know:

- Puerperal sepsis is the second most important cause of maternal death, accounting for approximately 15 per cent of all maternal deaths in developing countries.
- Puerperal sepsis is almost always the result of intervention during labour and delivery.
- Traditional customs and belief systems in some areas may predispose to puerperal sepsis.
- The risk factors that predispose to puerperal sepsis are: premature rupture of membranes and prolonged obstructed labour, anaemia and malnutrition, lack of hygiene during labour and postpartum, no antenatal care, young age (under 16 years), home delivery (particularly for high-risk pregnancies)
- All but the first of these risk factors are linked to low socioeconomic class.

What midwives should do:

- Avoid unnecessary interference during labour and too frequent vaginal examinations.
- Ensure a clean safe delivery and high standards of hygiene in labour and during the postpartum period.
- Prevent prolonged and obstructed labour by use of the partograph.
- Prevent, diagnose and treat anaemia.
- Immunize pregnant women against tetanus.
- Detect early signs of sepsis such as temperature rise and severe afterpain.
- At discharge educate women about signs of infection and when to report back.
- Treat women with appropriate antibiotics in case of prolonged rupture of membranes, prolonged labour and at first signs of infection.
- Supervise traditional birth attendants and/or give feedback on referrals by TBAs to improve practice.
- Provide family planning services for women at high risk of puerperal infection.

To prevent death from eclampsia

What midwives should know:

- Eclampsia and pre-eclampsia are the most important obstetric causes of maternal mortality in the western world.
- In most developing countries these conditions rank third as a cause of maternal death, accounting for 12 per cent of all maternal deaths.
- Midwives should know the prevalence of these conditions in their area as it may vary from region to region.
- Eclampsia may occur in the antenatal, intranatal or the postnatal period Antenatal care and education about the symptoms and dangers of severe pre-eclampsia are important for the prevention of maternal deaths from eclampsia.
- The risk factors which make pre-eclampsia and eclampsia more likely to occur are first pregnancy, teenage pregnancy, women over 35 years, twin pregnancy, diabetes, hydatidiform mole, pre-existing hypertension.
- Midwives should know about the important role of prenatal care in the early detection and treatment of pre-eclampsia which can almost always avert progression to eclampsia.
- The differential diagnosis of eclampsia includes idiopathic epilepsycerebral malaria, pneumococcal meningitis, severe infections, sub-arachnoid or cerebral haemorrhage, brain tumour, and uraemia from another cause.
- Termination of pregnancy is the only way to “cure” pre-eclampsia. However, in mild cases, it can be controlled by conservative treatment until the fetus is viable.
- Midwives should know about traditional beliefs regarding oedema, pallor and headaches, and the influence of traditional healers in the community.

What midwives should do:

- Monitor blood pressure (record as early as possible to obtain a basal level), and check for proteinuria at first prenatal check, and if blood pressure is high.
- Institute or participate in emergency treatment for women with severe pre-eclampsia or eclampsia, i.e. anticonvulsant and antihypertensive.
- Educate families and communities about the signs and symptoms of pre-eclampsia and eclampsia, the seriousness of the condition and the need for prenatal monitoring of blood pressure and urine.
- Provide family planning services for women who have had pre-eclampsia or eclampsia.

To prevent death from abortion

What midwives should know:

- The risks of unsafe abortion are maternal death (in some Latin American countries, up to 50 per cent of maternal deaths are due to illegal abortion), post-abortion complications such as sepsis and haemorrhage and long-term reproductive problems such as infertility.
- Midwives should know which women are most likely to seek an abortion in their area (e.g. unmarried adolescents, high parity women, poor women).
- Midwives should know the extent of unwanted pregnancy in their area. If all the women who said they did not want any more children actually stopped having them, it is estimated that a third of Latin American births, a little more than a third of Asian births, and just under a sixth of African births would not occur.
- Prevention of unwanted pregnancy will significantly reduce maternal mortality and will reduce costs of maternal care, abortion services and the treatment of incomplete and septic abortion.
- Pregnancy poses health risks for women starting childbearing in adolescence, older and high parity women and women with short birth intervals. These women often want to limit childbearing. However, family planning services appropriate for these groups are not universally available and, in many societies, family planning programmes avoid serving unmarried adolescents because of ambivalent attitudes towards adolescent sexuality.

What midwives should do:

- Educate women, families and the community about family planning and abortion.
- Incorporate education on child spacing in prenatal, postnatal care and post-abortion care.
- Provide family planning services to women in the community or refer to the appropriate centre.
- Perform or participate in life-saving functions in case of incomplete or septic abortion.
- Engage in medical audit or confidential enquiries to find out the circumstances in which deaths from abortion occur.