Institute of Nutrition of Central America and Panama (INCAP/PAHO)

Quetzaltenango Health Area

Training Manual for Trainers of Traditional Birth Attendants

Quetzaltenango Maternal and Neonatal Health Project

MotherCare™

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Guatemala, 1993

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TRAINING MANUAL FOR TRAINERS OF TRADITIONAL BIRTH ATTENDANTS

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MODULE VI:
Planning and Follow-up of Training Courses for Traditional Birth Attendants

EXECUTIVE SUMMARY

This training manual for trainers of traditional birth attendants was developed as part of the activities of the Quetzaltenango Maternal and Neonatal Health Project. The project was carried out from 1988 to 1993 in the Quetzaltenango Health Area of Guatemala and formed part of the Institute of Nutrition of Central America and Panama's (INCAP) program to promote maternal and child health in Central America. This was a collaborative project between the Quetzaltenango Health Area and INCAP.

The primary goal of the project was to reduce the high rates of maternal and neonatal mortality through more efficient use of existing resources and through intervention at all levels, from the community to the hospital. The objective of the intervention was to promote early detection and adequate management of the principal obstetric complications during the prenatal, intrapartum and postpartum period (e.g. hemorrhage, sepsis and eclampsia) and neonatal complications (asphyxia, sepsis and complications due to prematurity and low birthweight).

The project was developed in three phases: diagnostic, intervention and evaluation. In the diagnostic phase, studies were performed to determine the limiting factors and other problems in the management of obstetric and neonatal cases at the levels of the hospital, health centers and posts, traditional birth attendants (TBA), and families. Surveys were taken of the users of the health services, health service personnel, and TBAs to determine the factors that influence the appropriate management of obstetric and neonatal cases and the adequate utilization of the health services. Studies were also performed to determine the principal causes of maternal and neonatal death.

Two of the principal findings of the studies showed that 95% of the maternal deaths were caused by hemorrhage, sepsis and eclampsia; and 92% of the peri-neonatal deaths were caused by asphyxia due to malpresentation and prolonged labor, sepsis, and complications related to prematurity and low birthweight. It was found at the health service level that the health care personnel and the TBAs had received no recent education regarding the detection and management of the principal obstetric and neonatal emergencies and that specific management protocols for these complications did not exist. In addition, the referral and counter-referral system was not functional.

In the second phase, interventions aimed at improving the detection and management of the principal obstetric and neonatal emergencies were developed based on the findings of the diagnostic phase.

Health service management protocols were established for the principal obstetric and neonatal emergencies, and educational sessions were held for health service personnel and TBAs. Meetings were held with health service personnel to sensitize them and to encourage the acceptance of TBAs and their patients into the health care services. Attempts were also made to increase the perceived value of TBAs and their patients. Meetings between personnel at different levels of the health care system were arranged in order to improve the system of referral and counter-referral. TBA trainers were trained in order to improve their technical knowledge of the management of obstetric and neonatal emergencies and to acquaint them with participatory teaching methodologies of adult education. Practical, low-cost, easily constructed visual materials were developed to help conduct the TBA training sessions in a more practical and participatory manner.

In the third, or evaluation, phase, the impact of the different interventions was evaluated, and monitoring and evaluation systems were established at the health service and community levels.

Preliminary data from the evaluation phase show a significant increase in TBA referrals of complicated obstetric cases to the hospital. Neonatal mortality in the hospital has decreased from 38 per 1000 live births in 1989 to 32 per 1000 live births in 1992. The TBAs report better acceptance by the hospital personnel, who are beginning to welcome their participation during the hospital births of their referred patients. In the health centers and health posts, the information registered in the clinical charts of prenatal, postnatal and neonatal care has improved. Additionally, an increase in skills performed by health personnel during prenatal clinical examinations has been observed.

The basic principles of TBA training in the context of this project are the following:

- The training material is reduced and made more concrete to avoid an overload of information and poor assimilation of the contents.

- The material discusses problems that confront the TBAs in their daily life to maximize their interest and to allow them to see the usefulness of the training.

- The material is limited to the principal causes of maternal and neonatal mortality.

- The transmission of the material uses participatory methods based on the principles of adult education. The TBA trainers are trained in educational method for adults.

- In order to conduct TBA training in a practical and participatory manner, low-cost visual material that is easily constructed in any local health service is used. This material creates more practical training activities in which the TBA can actively participate.

- The TBA trainers are trained to increase their technical knowledge of obstetrics and neonatology. The educator has more credibility in the eyes of the TBAs if she can answer technical questions about obstetrics and neonatology.

- To ensure that TBA referrals are successful, the different levels of referral (health center and post, hospital) were prepared to appropriately manage referred cases and treat the TBA and her patient respectfully. Management of cases in the health services was standardized, and meetings were held with the health service personnel to improve their understanding of the TBAs' work and its importance.

Included in this manual is the minimal technical knowledge that the TBA should possess in order to be able to contribute to decreasing maternal and peri-neonatal mortality.

This training model can be used to create programs that address more preventive issues such as breastfeeding, nutrition and family planning.

MODULE I:

MANUAL OVERVIEW

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BACKGROUND

Recent information on the pattern of infant mortality in Guatemala indicates that approximately 50% of all infant deaths occur during the first month of life, and the majority of those during the first week, indicating the urgent need for improved perinatal management. Using as a base the infant mortality rate (IMR) of 73.4 per 1000 live births reported in Guatemala in 1987, the aggregate intrapartum and neonatal mortality rate for the country has been estimated to be greater than 36 per 1000 live births. Results of investigations recently performed by the Institute of Nutrition of Central America and Panama (INCAP) confirm the high maternal mortality rate, which varies between 200 and 230 per 100,000 live births in 1989-1990. Official information at the national level demonstrated maternal mortality rates at the community level to be similar to those found in the Quetzaltenango study.

The care given during labor and delivery and to the newborn frequently occurs at home, especially in rural areas. Traditional Birth Attendants (TBAs) attend approximately 60 to 70% of all births in Guatemala, and this percentage rises to close to 90% in some of the rural highlands where the perinatal mortality and morbidity are higher. Because the Ministry of Public Health and Social Assistance facilities can attend only some 20% of births, one must accept that the TBA is a key element in any program to reduce peri-neonatal and maternal mortality, especially in rural areas.

The Ministry of Public Health and many other organizations that work in the health sector have conducted training programs for TBAs for many years. The impact of these programs in diminishing the rates of peri-neonatal and maternal mortality, however, has not been substantial. Why? This was one of the first questions the researchers asked when the Quetzaltenango Maternal and Neonatal Health Project began in 1988.

In search of ways to improve the care given to pregnant women and their newborn, a study was conducted jointly with the Quetzaltenango Health District, the Quetzaltenango General Hospital, regional TBAs and INCAP. Obstetrical and neonatal care was investigated by asking: What is actually being done by TBAs, health care personnel, families? How is it being done? When? Why? The principal causes of maternal and neonatal death were also investigated so that the intervention could be directed at these causes.

The study found that 92% of the direct obstetric deaths are due to three causes: hemorrhage, sepsis and pre-eclampsia. Peri-neonatal mortality is caused by one of three conditions in 96% of cases: asphyxia, neonatal sepsis and complications related to prematurity and low birthweight.

The study showed that, during training sessions, the TBAs received a large amount of information about how to attend a normal delivery, hygiene, cholera, the chain of command of the Ministry of Public Health and other topics. However, they usually did not receive specific information about how to detect and manage these complications. In the case of postpartum hemorrhage, for example, the TBAs were told that they should refer patients with postpartum hemorrhage to the hospital, but they did not receive information about how to detect it, how quickly women can die, and what immediate measures should be taken to improve the possibility that the woman will survive the trip to the hospital (massage the uterus, have the woman urinate, stimulate the nipple, give fluids).

Similarly, the majority of the TBA trainers had not received recent continuing education about the management of obstetric and neonatal complications and were therefore unable to transmit this knowledge to the TBAs. The TBA trainers had not received training in participatory methods adapted for teaching adults. Classes were usually lecture style, using very technical language in long sessions with little or no practical activities.

> The purpose of this manual is to train traditional birth attendants to take appropriate action to save the mother's and/or baby's life when threatened by obstetrical or perinatal emergencies.

Why did the researchers focus specifically on these complications and not others?

As mentioned, studies in Guatemala and other developing countries indicate that these are the causes of approximately 90% of the maternal mortality directly due to obstetrical causes, and 92% of the peri-neonatal deaths not caused by tetanus. The incidence of tetanus is very low in the Guatemalan highlands, whereas neonatal infections that can be fatal are common. The majority of these maternal, perinatal and neonatal deaths can be prevented by early detection and appropriate management that must begin in the community.

Why not provide education in other important areas, for example the use of delivery equipment or the cleaning of floors? This knowledge is or may be very useful in diminishing morbidity, but it does not help TBAs save the life of a mother or a baby when a complication arises.

The traditional risk-based approach which has been promoted in our country is not used in this manual. In the traditional risk-based approach, a series of variables or risk factors, such as age, primiparity, grand multiparity, malnutrition, illiteracy, and bad obstetrical history, are used to identify "high risk" women. If one applies this focus with these risk factors to the study's population, more than 80% will be high risk and will need to deliver in the hospital. If one refers only the "primigravida" (who represent 30% of all deliveries), the capacity of the nation's hospitals would be exceeded, as they can attend only 20% of the births nationwide.

For these reasons, this manual uses the "first-aid emergency" approach to prevent mortality due to the principal causes of death in mothers and babies. Only with the adequate management and referral of these cases can maternal and peri-neonatal death be significantly reduced.

In the past, these themes have been included in TBA education, but the instruction has not focused on detecting complications and managing them appropriately, thereby saving lives. In addition, the majority of TBAs in Guatemala are older and illiterate. It is difficult for them to retain the large amount of information presented in a training course. As all of the theories on adult education show, the contents of a training course must respond to the priorities identified by the TBAs themselves, must have a very specific focus, and must be constantly and continuously reinforced. The TBA is an adult who is trying to learn and improve herself. If the training focuses on a few key points that address the urgent problems that the TBAs face in their work, they will be motivated to learn. It is easier for them to retain the information when they see how useful the new knowledge is.

Because traditional educational methods have not been very effective, this training manual has been designed to help the educator use participatory training methods and inexpensive, easily constructed materials. Using this focus, we hope to reduce the rates of maternal, perinatal and neonatal mortality in our communities.

In some regions the patterns of maternal and peri-neonatal mortality are different due to other diseases, such as malaria and tetanus. The focus of any educational intervention must, of course, be adapted to the specific needs of each area. Similarly, the educator should use his or her own criteria in utilizing the tools provided in these modules. Everything does not need to be used.

Approximately two hours is needed to develop each lesson. The duration of each lesson depends on the characteristics of each group. In the Quetzaltenango experience, the total duration of the course was 25 to 30 hours. Daily sessions lasted 5-6 hours.

This manual does not include training on the safe birth kit, because there is no clear definition yet of the most appropriate birth kit. It is suggested that the equipment handed out to TBAs be individualized for each specific group based on their perceived needs, local circumstances and resources available. The training course should not revolve around the equipment; this distracts the TBAs' attention from technical content. Many experiences have shown that equipment is not always used appropriately or not used at all by the TBAs.

ORGANIZATION OF THIS MANUAL

This manual has six modules:

1. Manual Overview
2. Adult Education and Participatory Techniques for Group Education
3. Technical Information for Trainers of Traditional Birth Attendants
4. How to Create Visual Materials to Train Traditional Birth Attendants
5. Technical Information for Traditional Birth Attendants
6. Planning and Follow-up for Training Courses for Traditional Birth Attendants

To facilitate learning, the manual is subdivided into different modules and are ordered in logical progression, as follows:

• Why use this new method?	Module 1
• How to teach better	Module 2
• What to teach	Module 3 and Module 5
• What visual materials to use	Module 4
• How to follow-up training sessions	Module 6

WHO DEVELOPED THIS MANUAL?

The format, language and visual support material were tested in the Quetzaltenango Health District and were revised by health care personnel from other areas of Health Regions VI and VII. We received suggestions from graduate nurses, auxiliary nurses, doctors and rural health technicians and validated the material for this second edition with 500 traditional birth attendants. For the technical aspects of these modules, we had the support of anthropologists, adult education experts, obstetric nurses, obstetricians, pediatricians, neonatologists and perinatologists.

BIBLIOGRAPHY

Bartlett, A. et al. Intrapartum, neonatal and post-neonatal morbidity and mortality in a traditional indigenous community in rural Guatemala: A prospective study. Act Pediatr Scand 80:288-296, 1991.

Bocaletti, M. Mortalidad materna hospitalaria en Guatemala, 1988. Tesis. Guatemala. Universidad de San Carlos de Guatemala, Facultad de Medicina. 1989.

Bossert J. et al. Guatemala health sector assessment update. Guatemala. Ministry of Health. 1987.

Fauveau, V. et al. Perinatal mortality in Matlab, Bangladesh. A community-based study. International Journal of Epidemiology. 198:605-612, 1990.

La mortalidad en la niñez centroamericana, Panamá y Belice. Guatemala: 1980-1989. San José, Costa Rica. INCAP/UNICEF/CELADE, 1990.

Jamison, D. et al. (editors). Disease Control Priorities in Developing Countries. New York. Oxford University Press for the World Bank, 1991.

Jordan, B. Modes of teaching and learning. Questions raised by the Training of Traditional Birth Attendants. Institute for Research on Learning Report No. IRL 87-0004. 1987.

Jordan, B. Cosmopolitical Obstetrics: Some insight from the training of traditional midwives. So Sci Med 28(9) 295-944, 1989.

Koblinsky, M. Programming for Safe Motherhood. Paper. Washington, D.C. World Bank, Safe Motherhood Initiative Conference. March 1992.

Maine, D. Safe motherhood programs: options and issues. Columbia University. Center for Population and Family Health. (s.f.).

Marshall, M. et al. Life-Saving Skills Manual for Midwives. 2nd. ed. Washington, D.C. American College of Nurse Midwifes, 1991.

Medina, H. Mortalidad Materna en Guatemala. Guatemala, Ministerio de Salud Pública y Asistencia Social. 1989.

Mendez-Dominguez, A. Las creencias, las actitudes y el comportamiento que limitan la demanda de cuidado prenatal entre indígenas adolescentes en Guatemala. Guatemala. Informe. Universidad Del Valle de Guatemala. JCRW. 1989.

Guatemala. Ministerio de Salud Pública y Asistencia Social. Encuesta de Salud Materno Infantil. Guatemala. 1987.

Guatemala. Ministerio de Salud Pública y Asistencia Social. Guía del Jocente para la capacitación de comadronas, Guatemala. 1989.

Plan de Acción Regional para la Reducción de la Mortalidad Materna en las Américas. OPS/OMS. 1990.

Putney, P. et al. The training and practice of traditional birth attendants in Guatemala. Guatemala. Management Sciences for Health. USAID/Guatemala. 1985.

Rooney, C. Antenatal Care and Maternal Health: How effective is it? Geneva. WHO. 1992.

Rooney, C. Outline of Effective Care at Delivery for Safe Motherhood. Paper. Washington, D.C. World Bank/Mother Care Safe Motherhood Guidelines Workshop. November 1991.

Schieber, B. et al. Proyecto de salud materno neonatal de Quetzaltenango, 1990. Documento propuesta (no editado).

Starrs, A. La prevención de la tragedia de las muertes maternas. Informe sobre la Conferencia Internacional sobre la Maternidad sin Riesgo. Nairobi, Banco Mundial. OMS/ UNFPA, 1987.

Análisis de la situación del niño y la mujer. Guatemala. UNICEF/SEGEPLAN. 1991.

MODULE II:

ADULT EDUCATION AND PARTICIPATORY TECHNIQUES FOR GROUP EDUCATION

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INTRODUCTION

The purpose of this module is to equip the educator with the tools necessary for carrying out participatory training of traditional birth attendants. The basic elements of adult participatory training are included. They describe the basic concepts of the teaching-learning process with particular focus on the following four elements:

* *What are the teaching objectives?*
* *What should be taught?*
* *Whom are we teaching?*
* *How can we teach more effectively?*

This analysis should make it easier to apply the basic concepts of adult education to training TBAs.

In this module, the educator will find lively activities especially aimed at working with traditional birth attendants from the Guatemalan highlands. Because most of these women do not read or write and their mother language is not Spanish, techniques were selected that do not require reading. To facilitate communication with and among those obliged to speak in an unfamiliar language, techniques were selected which require rather straightforward communication. It is recognized that more complicated techniques suitable for literate groups also exist.

The animation techniques described are generally used at the beginning of an activity to encourage mingling among participants and to create a trusting and friendly environment. These techniques are also used to relax and reanimate the group after an intense, tiring session. The more entertaining the activity, the better the participants' response will be. Humor is often a useful ingredient in working with groups.

The role-playing techniques (skits and dramatizing patients' histories) allow the participants to express their views and perceptions. These techniques are very useful in demonstrating the group's knowledge on a given topic and can also be used during the review at the end of a topic to measure the group's comprehension.

This module provides a few ideas. Each facilitator should, however, use his or her creativity to invent and adapt other techniques.

A. ADULT EDUCATION

1. PROCESS OF EFFECTIVE TEACHING AND LEARNING

In order to discuss effective teaching and learning, we must first understand the basic components of these processes. Given that effective teaching results in effective learning, we begin by examining and comparing these two processes.

1.1 What is learning?

To learn is to change behavior. The process begins when the learner (student) receives messages from the educator. An internal process occurs in which the learner analyzes the messages received, taking into account his/her own experiences and circumstances, and decides what he/she finds useful. A personal conclusion is reached. When actions follow the decision, change is brought about and one can say learning has taken place.

1.2 What is teaching?

Teaching is the transmission of information which provokes desired changes in the individual. Teaching is an art. How does one teach? How does one transmit knowledge? There are many ways to do it, but the result must always be that the material taught becomes learned.

The four components of teaching are:

Why do you want to teach? Final objectives	Who will you teach? The learners
↓	↓
WILL DETERMINE	
↓	↓
What you teach Contents	How you teach Methods, techniques, materials

These four elements are interdependent. They cannot be visualized or conceptualized by themselves. For example, if the basic teaching objective is to achieve a decrease in the maternal and peri-neonatal mortality in the population attended by TBAs in your community, then:

Why? (objective)	Modify TBAs' practices in obstetric and neonatal care to decrease the maternal and peri-neonatal death rates at the community level.
To whom? (learners)	TBAs
What? (contents)	Detection and management of the principal causes of maternal and peri-neonatal death.
How? (methodology, techniques, support material)	Depends on the characteristics of the learner (in this case, the TBA) and on the material resources available for the training.

One must analyze what is necessary to achieve the proposed objective: what, who, when, where, how, with what? In this case, the objective implies that the TBA must be trained to carry out appropriate, timely actions to avoid death. She must thus be taught how and when to act.

2. THE "WHY" AND "WHAT" OF WHAT WE TEACH: DEFINING OBJECTIVES AND CONTENTS

The issues must be analyzed taking into account the objectives (decrease the maternal and peri-neonatal mortality in the population attended by TBAs) and the recipient of the teaching (TBAs).

-----> *What is the problem you wish to solve or improve with the objective?* Mortality

-----> *Of whom?* The maternal and peri-neonatal group

-----> *What do they die from?* Principal causes of death (epidemiologic analysis of the problem)

-----> *Why or how do they actually die?* Lack of detection and appropriate management of complications (analysis of technical-clinical management of complications)

-----> *What can the learner (the TBA) do to contribute to the objective (decrease the maternal and peri-neonatal mortality)?* Analyze:

- Where is the TBA?
- What tools does she have for her work?
- How much can she learn? (see analysis of to whom)
- What is her problem-solving ability?

-----> In view of the fact that the TBA is located in the community and relies on scant equipment, she must be educated so that she detects and appropriately manages/refers all complications (e.g. postpartum sepsis).

- •Danger signs of postpartum infection must be known.
- •Women must be visited for an examination during the postpartum period.
- •The woman must be referred to the health center if there are signs of infection.
- •Abundant fluids must be given until the referral point is reached.

-----> *What must she know?* Danger signs of postpartum infection and management of the case.

-----> *What must she examine?* She must examine for fever, abdominal pain, offensive loquia.

-----> *What must she do?*
- •Make postpartum visit
- •Examine the patient
- •Inform the family, arrange transportation, obtain treatment for her patient

It is a common error to want to teach so many topics or so much information that not only do you not help resolve the problem, you confuse the learner. The clearer and simpler the information, the easier it will be to learn. The less the information transmitted each time and the more times it is repeated, the more it will be remembered and retained by the learner. For example, to learn how to administer oral rehydration salts and prevent dehydration in a child, we do not need to know the exact chemical composition of the ORS. But we do need to know that the package has to be diluted in one liter of clean water and that we need to give it in small amounts, etc.

3. ANALYZING THE LEARNER: "WHOM ARE WE TEACHING"

We must take the characteristics of the TBA into account: Who is she? Where is she? In what circumstances does she work? How does she learn?

Who is our TBA?

- Generally she is a woman who has had several children, who has a lot of experience, and who has seen women and children die in her community.
- She has learned her profession by observing other TBAs and by practical experience in her own work.
- She is known and generally well-respected in her community.
- She knows a lot about the customs and traditional medicine of her community.

- She has received training by the health care system, but this has not convinced her to change certain practices. Why?
- She sleeps in class (just like us) when the subjects are not interesting to her or when she does not understand the technical language.

How do TBAs work in their communities?

- Alone, without anyone to support them in difficult situations.
- Without much equipment.
- Traveling by foot to distant communities.
- Receiving little monetary remuneration, especially considering the importance of their work.

How does she learn best?

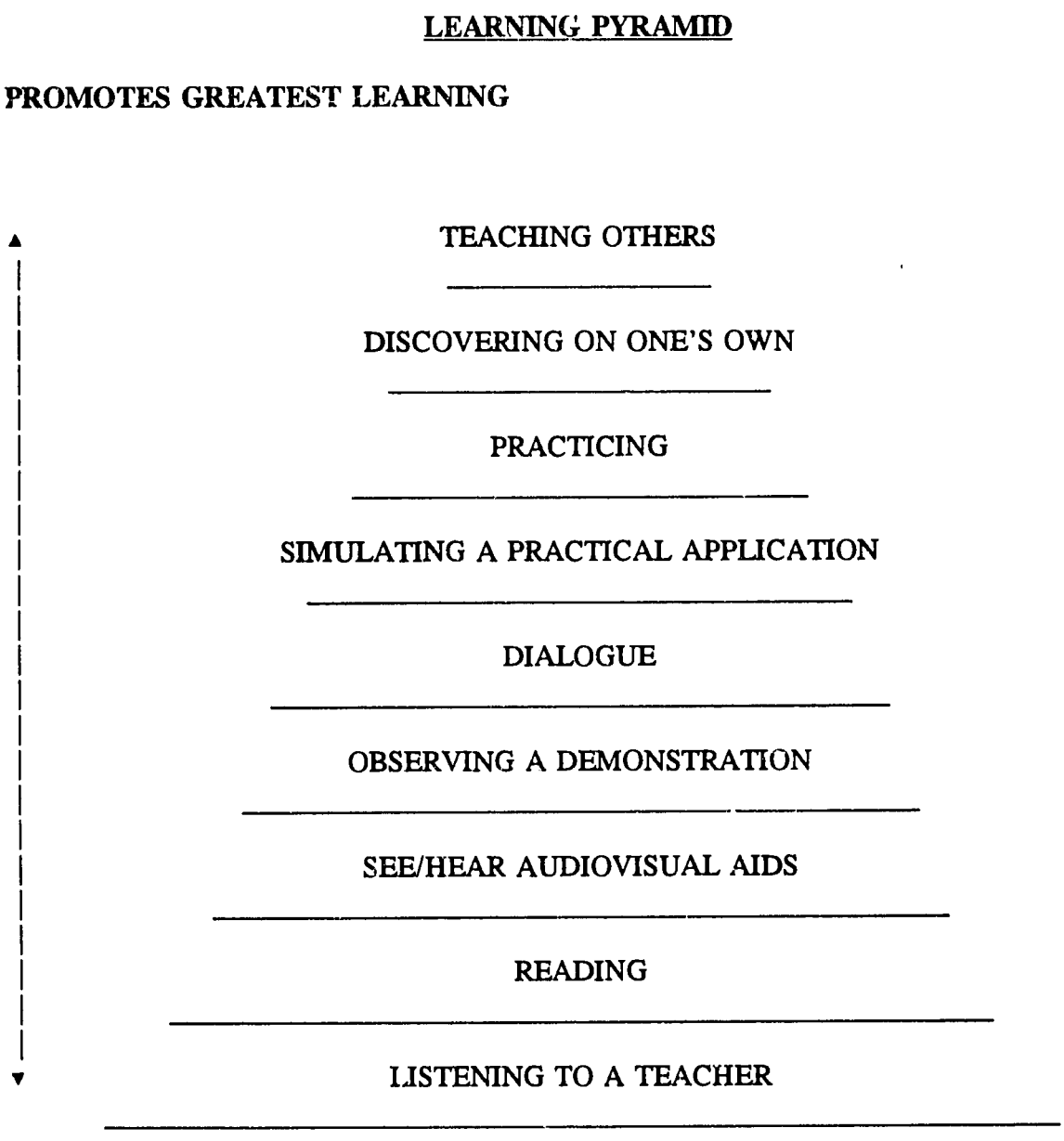
Since TBAs are adults, it is important to understand how adults learn.

3.1 The conceptual framework of the adult

In contrast to small children, adults have a large volume of previous experiences. Based on these experiences, they already have well-developed conceptual frameworks or ideas about how the world functions and the way people and events relate to one another. Illiterate people frequently live very spiritual lives. They probably have very detailed knowledge of agricultural cycles and nature. Although they cannot express their cultural traditions in writing, they do this via other. marvelously complex forms such as music, dance, visual arts and crafts, and storytelling. Usually, their interpersonal relations are ruled by complex and overlapping systems involving obligations, loyalty, dependence and independence between family groups, in-laws, ethnic, religious and political groups. This is the basis of their understanding and of the relationship between themselves and the world in general.

3.2 How adults learn

An ancient proverb says: "What I hear, I forget; what I see, I remember; what I do, I know." The following "pyramid" shows some activities frequently used in education, in order of effectiveness.



Ref.: The Learning Pyramid. OICD. Office of International Cooperation and Development.

4. METHODS, TECHNIQUES AND MATERIALS: THE "HOW" OF WHAT WE TEACH.

4.1 The importance of active learning

If adults succeed in integrating the new ideas into the conceptual framework they already use, it will be easier to understand, assimilate and remember them. If the learning process has allowed them to play an active role in the integration of the new information into their existing conceptual framework, they will "appropriate" these ideas. People who have experienced the process of active learning remember and more frequently accept new ideas and probably will apply these ideas, basing their future actions on the altered or amplified conceptual framework.

4.2 A methodology that promotes learning based on experience

To facilitate the acquisition of specific competencies and to promote their application on the part of the learners, it is important that the learning process be based on concrete activities that permit the learner to actively experience. A flexible teaching style must therefore be used, centering on the learner and his/her experiences.

This methodology is based on the following suppositions:

* Knowledge is not something that can be injected into people; it arises as a result of a process of experimentation and analysis. It is therefore very important to actively involve the adult learners in the educational process. If their participation is limited to the role of a passive recipient of information or knowledge, the learning will be much less effective.

* Every individual is unique and has his or her own style of learning. Educational activities must, therefore, be varied to accommodate the distinct ways different people learn.

* Learning has no significance if it is limited to the mere acquisition of data. Data become valuable only when the learner understands the reason why the information is important and how a piece of knowledge can provide something beneficial when applied in practice. Educational activities must then focus on the development of abilities or dexterity, instead of on the diffusion of information.

* The most effective learning is achieved when the content and the objectives have relevance in the daily life of the learner, when they help resolve daily problems, when they are related to what he/she already knows, with what he/she does at work, and with his/her personal goals.

4.3 Basic principles of participatory education for adults

* Regardless of his or her level of "formal" education or scholarliness, each person brings knowledge and experiences acquired in his or her life to the educational process.

* Knowledge gained through practical experience is a valid and valuable asset in the learning process.

* Education is a two-way process. All of us have something to teach and something to learn, "teachers" as well as "students."

* Students learn from one another, not only from the teacher.

* The role of the educator is to facilitate the learning process, not simply to "deposit" or "transfer" technical knowledge.

* Education is an active process on the part of the learner. LEARNING is more important than TEACHING. The student, not the teacher, is the "star."

* The product of this process is knowledge that belongs to everyone who has contributed to its construction. No one is "owner" of the truth.

* The education comes not only from the teacher's reality but also from the student's. The focus must be on the student's interests and needs. It must make sense and apply within the context of his or her life.

* The most effective learning is active, experiential, and practical (not just theoretical). Adults learn better those things they have experienced via their senses, things they can apply immediately, and things that they have discovered on their own.

* The educational process is critical. It must increase our capacity to reason, analyze and act, not just our capacity to memorize.

* In participatory adult education, we are all responsible for the process: the control and the power are shared.

* We human beings are unique in our capacity to effect changes in ourselves and in our environment. Education must bring about the transformation of our world, and must furnish the practical tools to help us improve our lives.

4.4 Some strategies for educating adults

* To enhance the memory, use the senses of vision, hearing, smell, taste, touch, and kinesthesia (movement). Good humor, exaggeration and stimulating the students' creativity all help a lot. Be creative; learning should always be entertaining, never boring.

* Unless there is a reason for the students to learn technical vocabulary, do not use it. Listen to how they talk among themselves and use the same words that they are familiar with. If you use words they do not understand, they will not be able to grasp the message.

* Another technique for involving learners more actively is presenting case studies (real or hypothetical) followed by discussion. Try to identify a familiar problem appropriate to the group from a cultural point of view. Include humorous elements to stimulate laughter and participation.

* Students learn more when they receive support and stimulation, such as congratulations and positive reviews, instead of criticism. Try to create an environment in which the students can help and stimulate each other and work in groups. To facilitate work at the group level as well as for the individual, divide the difficult tasks into more simple, short ones so the students can quickly attain some satisfaction from doing things correctly. If tests are given to measure progress, ensure that the questions are directly related to what has been taught, so students will feel encouraged by how much they have learned. If you ask very difficult or misleading questions, the students will feel frustrated and demoralized and will lose their motivation.

* Concentration powers and attention are greater in short sessions (20 to 50 minutes). In a two-hour session, short recesses must be included. The more frequent these recesses are, the more benefit will be obtained.

* The memory capacity is greater when the material to be covered is organized around key concepts, with key words or images to remember. Slogans, mottos and sayings are also useful.

* For people to be able to permanently fix new information in their memories, they need to review it the same day, the next day, the next week and after a month. You must review frequently, but be creative and vary format to avoid boredom and sleeping among the participants. When a student falls asleep do not blame her; on the contrary, this shows that the teacher should analyze his or her techniques. It is very important to use didactic aids and demonstrations to visually reinforce the message, and then to bring the message to life through dramatizations, educational games, and other activities that make the learned material more practical.

4.5 Characteristics of a successful facilitator

The facilitator is one of the most important keys to success with the participatory approach. The facilitator must have the ability to generate an entirely new learning process. Some characteristics of a good facilitator are:

- Respect for people
- Sensitivity and openness to the feelings, attitudes and relations between people
- Ability to increase people's self confidence
- Ability to motivate
- Fluency in the language of the majority
- Ability to listen
- Friendliness
- Belief in the possibility of change, people's ability to grow, and their potential
- Belief in the value of group decisions
- Skill in encouraging discussions and dialogues and group dynamics
- Being dynamic, creative and flexible
- Technically knowledgeable
- Ability to set a pace for the class which is appropriate for the students
- Firmness without being authoritarian

One should not become discouraged when reading this list. Keep these characteristics in mind and try to develop them. They make an excellent facilitator, who will have much success and satisfaction.

B. PARTICIPATORY TECHNIQUES FOR GROUP EDUCATION

1. ANIMATION TECHNIQUES

The objective of these techniques is to excite the group and to promote communication, trust and a team spirit between the participants and the facilitator.

Use these techniques at the beginning of a session to break the ice or to refresh the group after a tiring session. Entertainment and good humor help activities seem more agreeable and generate enthusiasm in the participants.

Remember that the techniques are only a tool for achieving an objective. They are not an end in and of themselves and should not be overused, as this can devalue the activity.

1. The tide comes in and the tide goes out

   Draw two parallel lines or place two ropes on the floor approximately three meters apart. Have the participants form two rows, one behind each line on the floor.

   The animator stands in between the two rows and shouts **tide in**. Everyone takes a step or jumps forward onto the line or rope. When the animator shouts **tide out**, everyone steps or jumps back to their original position. This should be done rapidly.

   When one of the participants makes a mistake, he or she must do something for the group (such as dancing, singing, or answering a question on a previous topic).

2. Dwarfs and Giants

   Form two parallel rows of participants who will remain standing. Designate two monitors, one in each row.

   When the animator says **dwarfs**, everyone must stoop down. When the animator says **giants**, everyone must stand up. The **monitors** must pick out those who make mistakes and take them from the line. In this way, the participants are gradually eliminated. Those who stay on the line (those who have not lost) say what the losers must do (such as: dancing, singing, or answering a question on a previous topic).

3. The Cat and the Mouse

The participants form a circle and hold hands. One person stands inside the circle; she is the **mouse**. Another person stands outside the circle; she is the **cat**.

The **cat** tries to catch the **mouse**; the participants in the circle do not allow the **cat** inside the circle to catch the **mouse**. If the **cat** enters the circle, the **mouse** leaves it and the participants again close the circle. The objective of the game is for the **cat** to try to catch the **mouse**. The **mouse** tries to keep from being caught. If the **mouse** is caught, the **cat** says what she must do as a penalty. The **mouse** then becomes the **cat** and must catch another **mouse**, and so on.

4. The King Says (Mother May I)

Form a circle and explain to the participants that they must do what follows the command "**the king says.**" The animator starts the game by saying, for example, "**the king says lift your hands**," and everyone lifts their hands. The animator then says "**lower your hands.**" In this case no one should lower their hands because the order was not preceded by "**the king says...**". Those who make mistakes are eliminated from the game.

5. The Train

The participants line up one behind the other, holding on to the waist of the person in front and chanting "choo, choo" like a train. The animator calls out "**the train divides into twos**" and the participants must form groups of twos. Upon hearing "**the train divides into threes**," they must form groups of threes and so on.

The participants who aren't able to form groups of the required number must leave the train. Those who are able to remain on the train receive applause.

6. Soccer or Football

The participants divide into two groups and gather at either end of the room. Mark off the goals. The animator acts as referee and is in charge of blowing the whistle at the beginning and end of the match. The teams must not allow goals to be scored. The team who scores the most goals is the winner.

2. ROLE-PLAYING TECHNIQUES

1. Skits

Skits demonstrate elements for the analysis on a particular topic, based on real situations and events. Skits are one of the best ways of relating didactic material to reality while entertaining participants at the same time. This technique can also be used to determine a group's knowledge of a particular topic.

It is important to recognize that gestures, actions and words from daily life are used. It is not necessary to write anything beforehand, nor to bring special clothing. Scripts are not needed either.

Before beginning the skit, the "actors" meet to discuss the topic (4 or 5 people from each group). If the topic is, for example, "problems of the pregnant woman," the group would prepare a simple story about a mother with problems (e.g., swelling) and decide on the plot, who will take which role, and how they will act. If there is time, they can do a brief rehearsal. The actors should speak clearly and loudly and should use gestures. Two people should not speak at the same time. Limit the time while permitting the messages to be transmitted.

At the end of the skit, the audience should evaluate the way the topic was presented and should discuss it.

2. Role-playing

Role-playing demonstrates for further analysis the attitudes, behaviors and reactions that people have in daily life situations. This is very useful in presenting the attitudes of people towards their occupation or profession. For example, skits can portray the attitude of a hospital doorman when a TBA arrives; or a nurse's reaction when a TBA brings a complicated case to the health center at 4 o'clock when everyone wants to go home.

Select the topic to be addressed and then form groups with the number of people required for the situation. Each group should discuss the attitude that the characters have and the arguments they would use in real life. Afterwards, discuss the presentation of the skit.

BIBLIOGRAPHY

Adam, F. et al. Factores en el aprendizaje y la instrucción de los adultos. Caracas. Instituto Internacional de Andragogía. 1982.

Bock, J. The demystification of nonformal education: A critique and suggestions for a new research direction. Amherst. Center for International Education, University of Massachusetts. 1976.

Briseño, G. et al. El aprendizaje en el adulto. Informe Curso Taller: Situación Educativa y Procesos de Aprendizaje en el Adulto. CENAPRO. 1978.

Charles, M. Comunicación y procesos educativos. Tecnología y comunicación educativas. Marzo 6, No. 17. 17-23. 1991

Ething, A. Characteristics of Facilitation: The Ecuador Project and Beyond. Amherst. Center for International Education, University of Massachusetts. 1975.

Evans, D. The Ecuador Project. Amherst. Center for International Education. University of Massachusetts. Technical Note No. 1. 1972.

García, J. El aprendizaje adulto en un sistema abierto y a distancia. Madrid. Marcea, S.A. de Ediciones 1986.

Guatemala. Ministerio de Salud Pública y Asistencia Social. Guía del Docente para la Capacitación de Comadronas. Guatemala. 1989.

Kindervatter, S. Learner-Centered Training for Learner-Centered Programs. Amherst. Center for International Education, University of Massachusetts. 1977.

Kindervatter, S. Nonformal Education as an Empowering Process. Amherst. Center for International Education, University of Massachusetts. 1979.

Luft, J. Introducción a la dinámica de grupos. Editorial Herder. Biblioteca de Psicología. No. 18.

McLauglin, S. The Wayside Mechanic: An Analysis of Skill Acquisition in Ghana. Amherst. Center for International Education, University of Massachusetts. 1979.

Menin, O. El aprendizaje en el adulto. La Educación - Revista Interamericana de Desarrollo Educativo. No. 92: 2-18. 1983.

Vargas, L. Técnicas participativas para la educación popular. San José, Costa Rica. Centro de Estudios y Publicidad Altona. 1984.

Werner, D. Donde no hay doctor. México. Editorial Pax. 1981.

Werner, D. Aprendiendo a promover la salud. Palo Alto, California. Fundación Hesperian. 1984.

MODULE III:

TECHNICAL INFORMATION FOR TRAINERS OF TRADITIONAL BIRTH ATTENDANTS

TABLE OF CONTENTS

INTRODUCTION

The purpose of this module is to strengthen and complement the technical knowledge of the educators of traditional birth attendants in the management of the most important obstetric and neonatal emergencies. The information provided here is more technical and detailed than that provided for the traditional birth attendants. This will help the educators to discuss these topics and be better prepared to correctly answer the questions that the traditional birth attendants may pose.

For most topics, the information is structured as follows:

- ✓ Definition
- ✓ Risks
- ✓ Causes
- ✓ Management
- ✓ Prevention

COMPLICATIONS DURING PREGNANCY

1. HEMORRHAGE IN PREGNANCY

DEFINITION

During a normal pregnancy, the placenta is firmly attached to the uterine wall. There should not be any vaginal bleeding. Any amount of vaginal bleeding is a sign that something is wrong and indicates serious danger for the mother and/or the baby.

RISKS

Hemorrhage in pregnancy occurs when, for some reason, the placenta does not stay firmly attached to the wall of the uterus. The mother can lose a lot of blood and risks bleeding to death. When the placenta loosens, the bond between the mother and the fetus breaks, and the baby's life is also in danger. Antepartum hemorrhage is thus a condition that threatens the life of the mother as much as the life of the fetus. The woman must be referred to the hospital immediately, where steps can be taken to stop the hemorrhage.

CAUSES

During the first trimester of pregnancy, hemorrhage can be due to an abortion, either spontaneous or induced, or to an ectopic pregnancy. A spontaneous abortion may occur when the fetus has a congenital malformation incompatible with life. Thirty percent of pregnancies end in spontaneous abortion, the majority in the first weeks of pregnancy. All of the products of conception must be expelled for the uterus to be able to contract. If parts of the fetus or placenta remain inside the uterus, it cannot contract, and the site where the placenta was attached will bleed. The uterus will continue to bleed until it is cleaned out, either by a curettage or spontaneously.

In the case of an induced abortion, the risks increase because infection can develop in addition to the bleeding.

An ectopic pregnancy occurs when the fetus is located outside the uterus (i.e., in the fallopian tube or in the abdominal cavity). These organs are not elastic like the uterine muscle, so that when the pregnancy grows, the organ tears or ruptures. The fetus dies and bleeding can occur which threatens the life of the woman. When

bleeding occurs in the first trimester of pregnancy for whatever reason, the woman must be referred to the hospital.

During the latter part of pregnancy, vaginal hemorrhage can come from the placental site. The placenta is normally attached to the upper part of the uterus. In the case of placenta previa, it is attached to the lower part of the uterus. In the later stages of pregnancy, the growth of the uterus stretches and thins this lower part, which can cause the detachment of the placenta and hemorrhage.

The amount of bleeding depends on the degree of detachment of the placenta. This, in turn, depends on the site of attachment and the amount of stretching that occurs when the baby grows. If there is a major detachment, the baby will die.

Vaginal hemorrhage caused by placenta previa usually does not cause pain. There may be a lot of bleeding. It can stop on its own, only to become heavy again in later stages of pregnancy or during labor. Depending on its location, the placenta can also prevent fetal descent or block the cervix completely at the time of birth. Placenta previa is a condition that can be fatal. Because of this, women with hemorrhage - although the bleeding may have apparently stopped - must always be referred to the hospital to have the baby.

Detachment of the placenta (abruptio placenta) refers to a placenta that is attached in the right place but separates from the uterine wall before delivery. The cause of this separation is usually unknown, although it is frequently associated with hypertension. Sometimes the bleeding remains trapped inside the uterus, behind the placenta, and the blood either does not come out or comes out only a little. In this case, the uterus swells, hurts a lot, and feels hard when touched. If the hemorrhage comes out, it is possible that the uterus will feel soft and not hurt when touched. If the placenta is completely detached, the baby dies. If the detachment is partial, the baby may survive. Whether the blood stays hidden or comes out of the vagina, the mother's life is in danger.

MANAGEMENT

If there is hemorrhage in pregnancy, immediate action is necessary to prevent death. A woman with bleeding during pregnancy should be transferred to the hospital immediately. She should remain lying down with her feet elevated as much as possible during transit, and she should drink plenty of fluids. If a woman with bleeding refuses to go to the hospital, she must stay in bed with her head lower than her feet and drink plenty of fluids. The TBA must insist that she have her baby in the hospital. Pregnant women must be taught to report any bleeding immediately.

PREVENTION

Antepartum hemorrhage in pregnancy is difficult to prevent. However, conditions which contribute to more serious consequences of antepartum hemorrhage, e.g. anemia, can be prevented.

Anemic women can tolerate very little blood loss. This is one of the many reasons to prevent anemia during pregnancy. Since iron deficiency is the most common cause of anemia during pregnancy, the TBA must teach her patients good nutritional habits. If possible, she should have her patients take iron supplements.

2. PRE-ECLAMPSIA/ECLAMPSIA

DEFINITION

Pre-eclampsia/eclampsia is a hypertensive disease provoked by pregnancy.

Pre-eclampsia occurs in the second half of the pregnancy, usually in the third trimester. Although swelling of the feet is normal and 80% of pregnant women experience it, swelling of the hands and face is a different matter and should alert the TBAs to the possibility of pre-eclampsia. Other symptoms include bad headaches, epigastric pain, palpitations and visual problems, rapid increase in weight, high blood pressure (greater than 140/90), and proteinuria.

Without treatment, pre-eclampsia can become eclampsia. This is characterized by convulsions, coma, injury or death of the fetus, and possible cerebral damage or death in the mother.

RISKS

Eclampsia can cause brain damage in the mother or in the baby. In addition, it is a principal cause of maternal and fetal mortality. Obviously, convulsions or coma are emergencies that require immediate transfer to the hospital. Early treatment can prevent death. TBAs must be aware that eclampsia with convulsions can occur up to 48 hours after delivery. Beyond that period, the woman is usually out of danger.

CAUSES

Although it is not known why some women develop this condition, death due to pre-eclampsia/eclampsia can be prevented with early detection and transfer to the hospital for treatment. Pre-eclampsia/eclampsia is more common in primigravidas, women under 20 years of age, women with multiple fetuses, older women, multiparous women with more than five pregnancies, and in pregnancies that produce excessive quantities of amniotic fluid (polyhydramnios).

MANAGEMENT

Although the TBA cannot detect high blood pressure, proteinuria or a rapid increase in weight, she must be alert to abnormal swelling, headaches, palpitations, and/or visual problems. If any of these signs or symptoms occur, she must rapidly refer the woman to the health center or post for evaluation. They will give her treatment (bedrest, hydration, anti-hypertensives, and/or anticonvulsants) and possibly refer her to the hospital. The objective is to keep this condition from progressing to eclampsia.

PREVENTION

Ideally, eclampsia should be prevented by early detection and referral of women with pre-eclampsia. The blood pressure of all pregnant women should be taken in a health center or post at least once during the third trimester. Any woman with symptoms of moderate or severe pre-eclampsia must give birth in the hospital. Usually, pre-eclampsia worsens as the pregnancy advances. Without treatment, it can provoke a crisis at the moment of delivery.

3. PREMATURE RUPTURE OF MEMBRANES

DEFINITION

Premature rupture of membranes occurs when the bag of waters breaks more than 24 hours before the birth of the baby.

When the bag of waters is intact, it constitutes the most important protection against infection in the mother as well as in the baby. This protection must remain intact until the mother begins active labor, ideally until she is pushing to deliver the baby. Nevertheless, sometimes the waters break before the beginning of labor.

RISKS

If the bag of waters breaks before labor begins, the woman and the baby are usually all right if the delivery occurs within 24 hours. If this does not happen, however, the risk of sepsis rises dramatically for the mother and the baby. In the baby's case, the infection carries the danger of fetal or neonatal death. The mother risks the possibility of death or future infertility. For these reasons, labor must begin within 12 hours after the membranes have ruptured. Another risk is that of prolapse of the umbilical cord or body extremities, which occurs more often if the presentation is mobile or non-cephalic.

CAUSES

Generally unknown.

DETECTION

The TBA must teach women to report the rupture of membranes immediately. A woman may experience this as a gush of warm water from the vagina, or as a small, continuous drip with larger quantities when she coughs or sneezes. Amniotic fluid continues to be produced, and so the dripping also continues.

Sometimes it is hard to know what kind of fluid is dripping from the vagina. Remember that it can be blood, amniotic fluid, a profuse discharge caused by a vaginal infection, or urinary incontinence caused by pressure. Of these possibilities, only incontinence is not harmful. If there is any doubt, it is better to refer the woman to the hospital.

MANAGEMENT

To prevent sepsis in the mother and the baby, the TBA must refer all women to the hospital who have ruptured membranes and have not begun labor within 12 hours. There, the woman will receive antibiotics and her labor may be induced. The TBA must also refer all women with ruptured membranes who have a fever, or if the liquid dripping from the vagina has a foul odor. After the premature rupture of membranes, neither the TBA nor the health center/post personnel should do vaginal examinations because they only multiply the risk of infection. The woman should not bathe either. Antibiotic therapy should be started in the health center or post before transferring the patient to the hospital. If the cord has prolapsed, two CLEAN fingers should be inserted into the vagina and the fetal part presenting should be elevated to avoid compression of the cord. The woman should be transported this way, with her hips elevated.

PREVENTION

Although we do not know how to prevent premature rupture of membranes, we can prevent maternal and fetal sepsis by way of detection, referral, and early treatment.

4. PRENATAL CARE

DEFINITION

Pregnant women come to a health center/post or are visited by their TBA to receive prenatal care. The purpose of these prenatal visits is the detection of the principal problems that can occur during pregnancy and the appropriate referral of women with these problems. Health education is part of this process, and the TBA can teach women to report certain danger signs: any bleeding, swelling of the hands and/or face, premature labor, or premature rupture of the membranes. The objective is that all women be examined at least once by a TBA and once in a health center or post during their third trimester (or at least in the ninth month).

The ideal: monthly prenatal visits during the entire pregnancy. These visits will be most valuable if used to evaluate the condition of the woman and her fetus, detect complications, and to begin appropriate treatment early.

CARE THAT THE TBA MUST GIVE

During prenatal visits, the TBA must examine the woman and talk with her to detect any high-risk signs or symptoms requiring transfer to a health center/post for treatment, and to determine if the woman needs to be referred to a hospital to give birth. These symptoms include:

- previous cesarian section (historical and abdominal examination)
- twins (abdominal examination)
- malpresentation (transverse or breech position-abdominal examination)
- abnormal swelling (inspection and questions)
- hemorrhage (clinical history)
- premature rupture of membranes (question the woman)
- premature labor (calculate and compare the estimated delivery date with the current date and the size of the uterus).

If the TBA discovers any of these signs, she must refer the woman, explaining the risks involved so that she agrees to the referral. The TBA must also teach women to report all danger signs immediately and to call quickly when labor begins.

CARE GIVEN IN THE HEALTH CENTER OR POST

In the third trimester of pregnancy, the TBA should refer all women to the health center or post for a prenatal visit. The primary objectives of this visit are to:

- take the blood pressure and examine the urine to detect pre-eclampsia
- give iron and folic acid supplements (if possible)
- give new tetanus vaccinations
- determine if there is a twin pregnancy or malpresentation

Signs of pre-eclampsia only occur at the end of pregnancy (in the seventh, eighth, and ninth months). The woman must also be evaluated in the ninth month to confirm the fetal presentation. The closer to the delivery date, the greater the chances that the fetus has arrived at its final position. Spontaneous changes in position can occur up until a few weeks before delivery. To be as sure as possible of the fetal position, the woman should be examined at the end of the ninth month.

If all of the cases of fetal malpresentation and pre-eclampsia were detected and referred appropriately, a large percentage of the maternal and fetal mortality could be avoided.

High-risk conditions are discussed in more detail in other sections. The purpose of this section is to highlight the signs of risk which should be detected in prenatal care.

5. LABOR

DEFINITION

Labor is the process which gradually shortens and dilates the cervix and finally expels the products of conception: fetus, placenta and membranes. Labor consists of periods of rhythmic uterine contractions between periods of relaxation and rest.

DESCRIPTION

During the progress of normal labor, the contractions increase in frequency, duration and intensity. They come more often, last longer, and are stronger. In the beginning of the first stage of labor (latent phase), the mother can still walk, talk or laugh when she has contractions. These contractions prepare the uterine cervix for dilation during the active phase that follows.

When labor becomes well established (active phase), the intensity of the contractions makes the cervix dilate more rapidly. The behavior of the mother changes. She starts to moan, sweat or feel cold, and soon she becomes absorbed with every contraction. She probably cannot walk or talk until the contraction finishes and may even vomit. Between each contraction, the uterus must relax completely, during which time the woman can then rest and will sometimes even become sleepy. This relaxation of the uterus allows the fetus to recover from the exhaustion provoked by each contraction and also prevents asphyxia. Normal labor lasts about 12 hours. Recent studies conducted by the World Health Organization show that maternal and peri-neonatal morbidity and the need for operative delivery increase after 12 hours of labor.

When the cervix is completely dilated (10 cm), the second stage of labor (expulsive phase) begins. At this time, the mother's efforts can help the baby descend to be born. The woman pushes during each expulsive contraction, and the baby advances down the vagina until it comes out. Normally, when the cervix is completely dilated, the mother will involuntarily feel the urge to push. The expulsive phase normally lasts from a few minutes (for multiparas) to up to one hour (for primiparas). It should not last for more than one hour.

The third stage of labor is the period between the birth of the baby and the delivery of the placenta, and this stage should not last more than one-half hour. Delivery of the placenta is discussed in more detail in the module "Postpartum Hemorrhage."

MANAGEMENT AND DANGERS

Labor is a natural process that proceeds best without intervention. When a woman is in an environment where she receives emotional and family support it will be easier for her to relax, and labor will proceed with fewer complications.

The TBA and the family must work together in the home to give support to the woman in labor. The TBA performs an additional role, which is to monitor the health of the mother and the baby. She does this by detecting and referring those cases where the mother or the baby may be in danger.

The TBA must examine the woman, determine when active labor begins and keep track of how much time passes because prolonged labor is very dangerous for the mother and the baby. She can help the mother relax, allowing her to eat if she wants to, giving her lots of sweetened drinks to prevent dehydration and exhaustion, and encouraging her to urinate frequently. The mother needs support during this very painful period of labor. The mother should be allowed to walk and to be in whatever position she feels most comfortable.

The abdominal examination must be done at the beginning of labor to determine if the baby is coming in the cephalic presentation and if there are one or more fetuses. A baby in the transverse position can never be born vaginally; a Cesarian section is necessary. If a baby in the transverse position is not extracted through this operation, labor will finally cause the uterus to rupture, which will kill the mother and the baby. For this reason, the mother must be sent to the hospital immediately. A baby in the podalic position (breech) also carries a high risk of fetal death or asphyxia as well as danger for the mother, so the mother should be referred to the hospital. The same is true of a multiple pregnancy. The most important thing is to locate the baby's head. If you cannot feel the head in the pelvis, refer the mother to the hospital.

The abdominal examination also allows the TBA to estimate the size of the baby. If it seems from the size of the uterus that the baby is not full-term, the baby will be premature or low birthweight. Because of this, the mother must be referred to the hospital for delivery, where there is special care available for newborns. The abdominal examination also reveals the scar of a previous Cesarian section, another indication that the mother should be referred to the hospital. Vaginal birth after Cesarian section is occasionally possible although there is an increased risk of uterine rupture at the site of the previous operation.

The TBA must determine if the membranes have ruptured and if so, how long ago. In addition, she must determine whether the woman has a fever. If the membranes have been ruptured for more than 12 hours and the baby has not been born or if the woman has a fever or foul-smelling vaginal discharge, she must also be referred to the hospital.

PROCEDURES NOT TO BE DONE BY THE TBA

- TBAs should NOT administer oxytocin to a woman in labor. This increases the frequency, intensity and length of the contraction and can cause severe damage or asphyxia to the baby or cause the mother's uterus to rupture.

- A woman should NOT be told to push until the baby's head is in the birth canal and she feels the irresistible urge to do so.

- TBAs should NOT do vaginal examinations.

- TBAs should NOT give alcohol to the mother during labor, as this can diminish the contractions and depress the baby's respiration at birth.

PROLONGED LABOR

It is important to differentiate between prolonged labor and normal labor. The TBA must stay with the woman to be able to see when labor becomes active (increase in the frequency, intensity and duration of the contractions, and changes in the mother's behavior). After this, she must keep track of the time in order to be able to recognize prolonged labor, which is more than 12 hours of active labor. The baby should be born within 12 hours. If the time when active labor began cannot be determined, the TBA should refer the woman 12 hours after the husband came to get the TBA. If labor is prolonged, it is usually because something is going wrong. There is usually a reason why the baby has not descended and been delivered. Prolonged labor is very exhausting for the mother as well as for the baby. It is associated with high rates of fetal trauma, asphyxia and death of the baby and with exhaustion, infection, uterine rupture, postpartum hemorrhage and death of the mother. This is an emergency. Such women must be referred to the hospital immediately.

When the cervix has dilated and the woman is pushing, the baby should be born within one hour. If the baby has not delivered after one hour of pushing, something is wrong and the mother must be referred to the hospital immediately.

TRUE OR FALSE LABOR

Sometimes a woman has strong, painful contractions that are not really labor. How can you distinguish between true and fals: labor? The only sure way is do a series of vaginal examinations over a period of hours to detect progressive thinning and dilation of the cervix. Because TBAs must not do vaginal examinations, they have to trust their own evaluation of the woman's contractions.

True labor pains come regularly and rhythmically and increase gradually in frequency, intensity and duration. They become stronger, last longer and are more often. They are felt in the back and in the abdomen and get stronger while walking.

Once true labor pains have begun, they do not stop on their own.

False labor does not dilate the cervix. Pains come at irregular intervals and their frequency, intensity and duration do not increase. They are felt principally in the lower abdomen and do not intensify when walking.

False labor pains can be very worrisome and unpleasant. Rest, back massages and warm baths can help the woman relax and make the pains go away.

6. MALPRESENTATION

DEFINITION

Presentation refers to that part of the baby which lies in the lower part of the uterus during pregnancy and labor. In the normal presentation, called cephalic presentation, the fetal head is in the pelvis and is the first part to come out of the mother. Any other presentation (feet, knee, buttocks, arm, shoulder or back first) is called a malpresentation because it is associated with high risk to the life of the mother and the baby during labor.

In a breech birth, the feet, buttocks or knee of the baby come through the cervix first, instead of the head. In a transverse lie or shoulder presentation, the back, an arm or a shoulder lies over the cervix, with the head to one side and the legs to the other side of the woman's abdomen.

RISKS

A baby in the transverse lie cannot be born through the vagina under any circumstances. If a Cesarian section is not done in time, the woman's uterus ruptures and both the mother and the baby may die.

In the breech position, the parts of the baby that come first are not round and hard like the head and thus do not stimulate dilation. In addition, the legs and buttocks of the fetus have a smaller diameter than the head and can slip through the cervix and permit descent of the baby before dilation is complete. This is a delicate situation because it is likely that the widest part of the body (the head), which comes last, will not fit through the partially dilated cervix and will become trapped inside. When this happens, the umbilical cord is frequently compressed between the baby's head and the mother's pelvic bones, cutting off the baby's blood supply and causing its death. The only solution is a Cesarian section, which is why the hospital is the best place for the delivery of a malpresentation.

MANAGEMENT

The TBA needs to understand the dangers associated with malpresentation. An abdominal examination must be done during the ninth month to detect any malpresentation. This should be repeated when labor begins. The TBA will thus be able to detect a malpresentation and convince any woman with a malpresentation to give birth in the hospital. If a breech presentation is detected before labor begins, the situation and the dangers that go along with it must be clearly explained to the woman and her family. They can thus be prepared to give birth in the hospital.

MANAGEMENT: ATTENDING A BREECH BIRTH

These instructions are only for health care personnel, NOT for TBAs. If you find yourself with a fetus about to be born and without time to go to the hospital, you must know what to do. Do not touch the baby, as such stimulation may cause the baby to extend its arms and head and become trapped inside the uterus.
REMEMBER, DO NOT TOUCH THE BABY!

When the baby's body has spontaneously delivered to the umbilicus, have the woman squat or stand and tell her to push with each contraction. Gravity helps the baby deliver. Normally, the baby is delivered in 3 to 4 contractions. You must wait without touching the baby. If the baby's arms and shoulders have not spontaneously delivered after 3 to 4 contractions, the nurse must introduce two fingers into the vagina, find an arm and gently pull it across the front of the baby's chest. Do the same thing with the other arm and then deliver the shoulders one by one. Rotate the body gently so that the back faces up (towards the mother's symphysis pubis) and the face is looking down towards the mother's sacrum. In the majority of cases, this rotation will occur spontaneously with the efforts of the mother only. Be patient, but do not allow the head to turn upwards towards the pubis. If the baby faces in the direction of the pubis, it will be very difficult to deliver.

If the head does not deliver spontaneously, you must rely on an assistant to help you by providing suprapubic pressure with the palm of the hand to keep the baby's head flexed. At the same time, introduce two fingers into the vagina and find the baby's mouth. Place the two fingers in the baby's mouth and apply gentle traction to guide the head down through the birth canal.

You must be prepared to execute these maneuvers rapidly and to resuscitate the baby afterwards, as it is very probable that it will have been asphyxiated during the delivery.

Do not teach the TBA the maneuvers to deliver a breech baby, as this may create the tendency to interfere too much with the delivery. The majority of breech births can deliver alone. The important point for the TBA is **DO NOT TOUCH THE BABY** until it is born.

COMPLICATIONS AFTER DELIVERY

7. POSTPARTUM HEMORRHAGE

DEFINITION

The loss of 500 ml or more of blood after delivery of the baby is called postpartum hemorrhage. It is very common in the first minutes and hours after birth, but it can occur up to 40 days after delivery. Between 50 and 250 ml of blood loss is normal.

RISKS

The TBA must be aware that the loss of 500 ml of blood is dangerous. It does not take much time for a woman who has just given birth to lose this amount of blood. If one does not act rapidly, the woman can die.

Postpartum hemorrhage is the most common cause of maternal mortality. It can be due to uterine atony, retained placenta or fragments of placenta, or lacerations sustained during delivery. The seriousness of this situation increases if the woman is anemic and if treatment to stop the hemorrhage is not immediate. It is most important to detect the hemorrhage quickly. For this to be possible, the woman must be uncovered and her vagina inspected to see if she is bleeding. If she is bleeding, send for transportation before you do anything else so that you will be able to transfer the woman to the hospital quickly. Remember that she can die in one or two hours.

PREVENTION

Although it is not possible to prevent all cases of postpartum hemorrhage, the TBA can prevent uterine atony caused by exhaustion due to prolonged labor. She must detect and refer all cases of malpresentation early and avoid prolonged labor. She must not use oxytocin injections during labor as these can cause uterine exhaustion. In addition, she can prevent anemia if she counsels women to take iron during pregnancy and to eat well.

During labor, the TBA can prevent many cases of hemorrhage if she insists that the woman urinates frequently, at least every two hours, to empty her bladder. She must also urinate after the delivery, as a full bladder can hinder the contraction of the uterus. Finally, the correct management of the delivery of the placenta will avoid much unnecessary blood loss.

CORRECT MANAGEMENT OF THE DELIVERY OF TIIE PLACENTA

The placenta usually detaches and is expelled within a few minutes after the delivery. A sudden but small gush of blood from the vagina and a slight lengthening of the cord indicate that the placenta has separated from the uterine wall and has descended into the birth canal. At this point, the woman can push, and the TBA can gently pull on the cord to guide the placenta out.

If the placenta takes more than 15 minutes to detach and deliver or if the woman is bleeding before the placenta delivers, the TBA must intervene in the following ways:

- Massage the uterus vigorously to make it contract and have the woman urinate. Put the baby to the breast to feed and thereby stimulate uterine contractions.

- Have the woman squat and push. If the placenta does not come out this way, make the woman lie down and do controlled cord traction ONLY WHEN THE UTERUS HAS CONTRACTED AND AS AN EMERGENCY MEASURE:

    1. Push the uterus upwards with the left hand placed on the lower abdomen to prevent it from being drawn down with the placenta.
    2. Put gentle and sustained traction on the cord with the right hand, first backwards (in the direction of the woman's buttocks) and then forwards (in the direction of the symphysis pubis) in order to guide the placenta out.
    3. After the placenta is delivered, continue massaging the uterus to make it contract firmly.

If the placenta is not delivered by controlled cord traction and the woman is bleeding profusely, continue the massage to make the uterus contract. What may happen is that the uterus may contract and trap the placenta inside so that it can not be extracted. The important point, however, is that the bleeding must be stopped in order to save the woman's life. Transfer the woman urgently for manual removal of the placenta in the hospital.

If the placenta is delivered, the TBA must massage the uterus to expel any blood clots that have remained inside and to make the uterus contract firmly. She must examine the placenta and membranes for completeness. She must also look to see if there are any lacerations of the perineum. If there are bleeding lacerations, constant pressure should be applied for a few minutes until the bleeding stops. This should be done before transferring the woman to the hospital.

If referral for suturing of laceations is not required, the TBA should stay with the mother for 2 or 3 hours after the delivery, palpating the uterus every 5 or 10 minutes to make sure that it stays contracted and massaging it if necessary. The woman must

not be left alone until the hemorrhage has completely stopped. The woman must be uncovered periodically to observe the vagina and see if blood is still coming out. In homes, the bedclothes are usually dark-colored, which means that a hemorrhage could go unnoticed. Follow-up for treatment of anemia is important for all women who have had a hemorrhage.

MANAGEMENT: PLACENTA RETAINED FOR MORE THAN 30 MINUTES

When the placenta has not delivered within 30 minutes after the birth of the baby, this constitutes a serious emergency that requires immediate transfer of the woman to the hospital. If the placenta or the membranes are retained, they may provoke a hemorrhage that will not stop until they have been removed. Refer the woman to the hospital for removal of the placenta and further treatment.

MANAGEMENT: PLACENTA AND MEMBRANES INCOMPLETE

The placenta and membranes must always be examined to see if they are complete. If the placenta and/or membranes are not complete, the woman must be referred to the hospital immediately for removal of retained products.

MANAGEMENT: HEMORRHAGE AFTER THE DELIVERY OF THE PLACENTA

If the placenta has delivered but the woman still has a hemorrhage, be it profuse or a steady drip, massage the uterus to express any clots or blood that have collected inside the uterus. The massage will also serve to make the uterus contract firmly. The uterus must be palpated every 5 minutes to make sure it is firm and to massage it when it feels soft. Have the woman urinate and put the baby to the breast to suck. If the hemorrhage continues despite these interventions, transfer the woman to the hospital as rapidly as possible while giving her plenty of liquids to drink. If it feels like the uterus becomes soft when the massaging stops, a weight can be placed on the abdomen (for example, a five pound bag of sand) to maintain pressure on the uterus during the trip to the hospital.

LATE POSTPARTUM HEMORRHAGE

Late postpartum hemorrhage (after the first 24 hours) occurs more frequently in women who do not rest enough after delivery and in those who develop postpartum sepsis. First-time mothers must be advised to rest and avoid heavy work for 6 weeks after childbirth. The TBA must visit them daily for a few days to make sure that everything is going well. During these visits, she must examine the color, quantity and quality of the lochia. She must also determine whether the woman has a fever and must also palpate the uterus. If there is a large quantity of red blood, foul smelling blood, abdominal pain or fever, the woman must be referred to the health center or health post for treatment.

8. POSTPARTUM SEPSIS

DEFINITION

Postpartum sepsis is an infection of the reproductive organs acquired during labor, delivery or in the postpartum period. Because these organs vascularize during the last stage of pregnancy, an infection introduced at this point spreads very rapidly and can easily become massive sepsis. Postpartum sepsis usually occurs on the third day postpartum.

RISKS

Postpartum sepsis is an extremely serious systemic infection that causes death if left untreated. If the treatment is not given quickly enough, the infection can cause infertility.

MANAGEMENT

Signs of postpartum sepsis include lower abdominal pain, especially when the uterus is palpated. The uterus feels big and soft. Signs also include purulent or foul-smelling vaginal discharge, late postpartum hemorrhage, fever for more than one day, headache, muscle pain, dizziness and mental confusion. If the woman shows any signs of postpartum sepsis, she must be taken immediately to the hospital to receive antibiotic therapy. If she is receiving enough liquids, she should continue breastfeeding, as postpartum sepsis is not transmitted to the baby through the mother's breast milk.

An experienced TBA will know that the majority of women who have just given birth complain of many of these signs. It is, therefore, necessary to be able to distinguish puerperal sepsis from normal puerperal discomforts. Many women, especially multiparas, suffer from afterbirth pains: painful, rhythmic uterine contractions that are particularly noticeable when the baby is breastfeeding. In contrast, abdominal pain is almost constant when there is a uterine infection.

Probably all TBAs are familiar with "milk fever." On the second or third day after delivery, when the breasts fill with milk, a woman may have a fever and swollen, sensitive breasts. While her body is experiencing a massive hormonal change, she may have headaches or dizziness, and she may become dehydrated. This syndrome is called "milk fever." Its symptoms are transitory and disappear in one or two days once the natural adjustment to the production of milk occurs. "Milk fever" is not associated with pain in the uterus or with foul-smelling vaginal discharge.

The TBA must be able to recognize these normal discomforts and at the same time be alert to signs of puerperal sepsis, for which it is very important to make prompt referrals for treatment. The TBA must, therefore, visit the new mother daily for a number of days after delivery to palpate the uterus and examine the woman for fever and foul-smelling vaginal discharge. If there are perineal lacerations (sutured or not), the TBA must examine them to make sure that they have not become infected.

MASTITIS

Mastitis is another possible cause of fever in lactating women. The TBA must examine the breasts and ask if there is any pain aside from the normal discomfort. If the nipples are cracked and injured, the mother should be shown alternative positions for breastfeeding in order to avoid pressure on the affected area of the nipple. Positions for breastfeeding include the football hold and lying on one side, in addition to the traditional form of holding the baby in the arms. Alternative positions, along with frequent breastfeeding will help keep the breasts empty and are often enough to prevent cracks in the nipple from becoming mastitis. Treatment for mastitis must include antibiotics and frequent emptying of the breasts. Breastfeeding should continue.

COMPLICATIONS IN THE NEWBORN

9. ASPHYXIATED BABY

DEFINITION

An asphyxiated baby is a newborn who delays or does not start to breathe by itself because it did not receive enough oxygen during labor. Without intervention, respiratory depression results in death or brain damage. With rapid resuscitation, however, the baby can recuperate completely.

CAUSES

Inside the mother's uterus, the baby receives food and oxygen from the placenta through the umbilical cord. But during labor, this support system can be endangered. The umbilical cord can be compressed, due to prolapse, loops around the neck or difficulties in the delivery of the head in a breech baby. The placenta can begin to detach (placenta previa or ABRUPTIO PLACENTA) or the contractions can last too long and be so intense that they interfere with placental circulation (due to bad use of oxytocic during labor). It is likely that a baby who has experienced a long or difficult labor or who has taken a lot of time to be born will have respiratory depression at birth.

RISKS

If the fetus is deprived of its normal supply of oxygen for more than one or two minutes, it starts to show signs of fetal distress, i.e., changes in the heart rate. If the oxygen deprivation lasts longer, the distress becomes more severe, and brain damage or death are possible if the situation is not corrected.

Almost immediately after the birth of a baby, the placenta starts to separate and the baby must begin to breathe in order to survive. A normal baby must begin to breathe and give its first cry during or immediately after birth. If it has suffered from oxygen deprivation during labor, however, it may be born depressed and without the natural reflex to begin breathing. If the baby is not immediately resuscitated, it will not be able to breathe and will die. On the other hand, if the baby is immediately given help in starting to breathe, it is possible that it will recover rapidly, begin to breathe by itself and suffer little if any negative after-effects.

IDENTIFICATION

The TBA must be able to recognize an oxygen depressed baby so that she can take rapid action. It is essential that she examine the baby as soon as possible so that she can evaluate its condition. A normal baby is pink, immediately begins to breathe and cry, and actively moves its arms and legs. In contrast, a depressed baby looks pale or blue, does not cry, and its arms and legs are limp and it does not move them or moves them very little.

MANAGEMENT

A baby born asphyxiated must be given immediate attention. The delivery of the placenta and attention to the mother can wait as long as the mother is not hemorrhaging. It is not necessary to cut the umbilical cord. In fact, it is better to leave it intact if it is long enough to allow the TBA to attend to the baby.

What must the TBA do when she attends the birth of an oxygen depressed baby?

- First, clean the mouth and nose of the baby to remove the mucus and blood.

- Next, dry the baby quickly with a clean towel or cloth, and rub his or her head and body gently to stimulate the baby. Sometimes just the stimulus of drying the body and cleaning the nose and mouth is enough to make the baby cry and start to breathe.

- If the baby is still not active and not breathing well, immediately give mouth-to-mouth resuscitation in the following manner: place the baby on a flat surface and put your mouth firmly over the baby's mouth and nose, steadying the baby's head with one hand, and gently breathe air into the baby's lungs (30 times) and see if the baby responds.

- Repeat artificial respiration two more times (a total of 3 x 30 times) or until the baby is active and begins to breathe better; if a response is not obtained, the baby is declared dead.

- Do not blow too much air into the baby's lungs as they can burst. The amount of air in the mouth is sufficient.

10. NEONATAL SEPSIS

DEFINITION

Any type of infection is very dangerous for newborns. Because they are so small and their immune systems are still immature, localized infections can spread rapidly and overwhelm their systems. This is called neonatal sepsis.

RISKS

Babies most likely to develop neonatal sepsis include those who are premature or low birthweight and those babies with signs of asphyxia who were resuscitated. Those who experienced a long and difficult labor or have inhaled meconium-stained fluid, and those born after prolonged premature rupture of the membranes are also at greater risk.

All newborns have an open wound: the umbilical cord, which is a possible site of entry for a bacterial contamination.

Newborns are also very susceptible to respiratory infections, especially when they have had difficulties starting to breathe spontaneously. Premature babies' lungs have not matured and are thus prone to infections. Bottle-fed babies are also very susceptible to intestinal infections, especially if they have not received any colostrum.

Regardless of the cause, if immediate treatment with antibiotics is not given to a newborn with sepsis, it will very likely die. Death can occur in one or two days.

MANAGEMENT

Babies with a high risk of sepsis should be visited daily by the TBA in order to detect any signs rapidly and, if necessary, refer the baby for treatment.

Signs of neonatal sepsis may include:

- little or no sucking or breastfeeding
- excessive or very little crying
- inconsolable crying
- lethargy
- very little activity
- a "sad" appearance
- fever or hypothermia
- respiratory difficulty or agitated breathing

A hypothermic baby may look pale, or its feet may feel much colder than the rest of its body. All of these signs tell us that an immediate referral to the hospital must be made to administer antibiotic therapy. During transfer, the baby must be kept well-covered and must be breast fed as often as possible to benefit from its mother's antibodies. Septic newborns need to be treated intravenously with a combination of antibiotics. They are extremely delicate and thus need to be cared for in the hospital.

PREVENTION

The baby receives essential antibodies through the mother's colostrum and milk. Exclusive breastfeeding gives the newborn the best defense against infections.

Aseptic techniques for cutting the cord and caring for the umbilicus can keep this area from becoming a site for the entry of infections. The traditional practice of cauterizing the cord with a red-hot coal or a red-hot knife is a good one because it sterilizes and seals the cord, preventing the entry of bacteria.

Newborns, especially premature or low birthweight babies, must be protected from contact with people sick with the flu, diarrhea etc. When the TBA visits a newborn, she must wash her hands before touching the baby.

11. PREMATURE AND LOW BIRTHWEIGHT NEWBORNS

DEFINITION

A premature baby is one who is born at 37 weeks of gestation or less. A low birthweight baby is one who weighs less than 2500 grams (5½ pounds). A low birthweight baby may be premature or full term, but because of its small size it is very susceptible to many of the same problems that premature babies face. As we do not expect the TBA to be able to differentiate between the two cases, this manual will treat them as one problem; the TBA should do the same.

RISKS

Premature and "small" babies may suffer from many complications. Due to their immaturity, they are much more susceptible to injury during labor and delivery and to the effects of asphyxia during birth. They can die much more easily during delivery. After birth, they are very susceptible to infections that can rapidly become sepsis and cause death. Because they have very little or no fatty tissue, they have difficulty maintaining body temperature and can die from hypothermia. Their stomachs are tiny, so they can eat only a little at a time. It is necessary to feed them very frequently to meet their nutritional needs. As they are very small and weak, they may not have the energy to breast feed adequately and thus may not grow as much as they need to. Their lungs are immature and they frequently have difficulty breathing, so are very susceptible to respiratory infections.

MANAGEMENT

When a woman in labor knows the exact date of her last menstrual period, a diagnosis of premature labor can be made. If labor is not well-established or advanced, transportation must be found immediately to take the woman to the hospital. The hope is that the pregnancy can be prolonged until the baby is more mature or that special care appropriate for a premature baby can be given.

If the woman refuses to go to the hospital, she should remain in bed, because bedrest may stop contractions. If labor is well underway and it looks as if, from the uterine size, a premature or very small baby will be born, the woman should also be referred to the hospital to give birth.

HOME CARE OF A PREMATURE BABY

It is also likely that the TBA will attend premature births in the home, particularly if the woman refuses to be referred to the hospital, labor begins very rapidly, or it is not impossible to predict the size of the baby, as sometimes happens with twins. If a premature birth is attended in the home, the TBA should suggest that the mother take her baby to the hospital to receive special care while he or she grows.

If the mother cannot get the baby to a hospital, the TBA must take special measures to help this baby survive.

HOME CARE: WARMTH

The baby must be dried quickly and gently and must be kept well-wrapped and warm by skin-to-skin contact with the mother or by another heat source. Ideally, the baby should be in constant skin-to-skin contact with the mother. If this is not possible, hot water bottles and up to four layers of clothing should be used. **(MAKE SURE THAT THE HOT WATER BOTTLES ARE WRAPPED IN TOWELS AND ARE NOT IN DIRECT CONTACT WITH THE BABY, AND THAT THE TOP OF THE BOTTLE IS AWAY FROM THE BABY TOWARDS THE FOOT END OF THE COT. BEWARE OF LEAKING BOTTLES!)** The air between the layers of clothing will keep the baby warmer. The baby should have a cap, socks and gloves. The baby doesn't need to be bathed; in fact, bathing should be delayed for fear of chilling the baby.

HOME CARE: FEEDING

The baby should be put to the breast as soon as possible and should be breast fed frequently, at least every two hours. Do not give any food or liquid besides breast milk. Premature babies should not be exposed to infections: avoid contact with people sick with colds, diarrhea or other infections. The TBA should visit the baby daily to evaluate its condition.

HOME CARE: DANGER SIGNS

If any symptoms of sepsis or respiratory problems develop, the family must take the baby to the hospital immediately. Once again the signs to look for are:

- poor sucking or lack of sucking,
- weak or excessive cry,
- fever or hypothermia,
- respiratory difficulty.

BIBLIOGRAPHY

Andolesk, K. Obstetric Care. Standards of Prenatal, Intrapartum and Post Partum Management. Pennsylvania. Lea & Febiger. 1990.

Barger, M. et al. Protocols for Gynecologic and Obstetric Health Care. Philadelphia W.B.Saunders Company. 1988.

Barron, S. and Thomson, A.M. Obstetrical Epidemiology. New York. Academic Press Inc. 1983.

Baylor College of Medicine, Department of Pediatrics. Newborn Section. Guidelines in the Management of the Neonate. USA. 1976.

Benrubi, G. Obstetric Emergencies. Contemporary Issues in Emergency Medicine. New York. Churchill Livingston. 1990.

Blott, M. and Greenough, A. "Neonatal Outcome After Prolonged Rupture of the Membranes Starting in the Second Trimester". Arch Dis Child. 63:1146-50. 1988.

Brann, A .W. and Dykes, F. D. "The Effect of Intrauterine Asphyxia on the Full - Term Neonate". Clin Perinatol. 4 (1):145-159. 1987.

Cerezo, R. y Figueroa, R. Manual de Atención al Recién Nacido. Guatemala. Editorial Piedra Santa. 1981.

Chalmers, I. et. al. Effective Care in Pregnancy and Childbirth. New York. Oxford University Press. 1989.

Cloherty, J. "Asfixia Perinatal". En: Cloherty, J. y Stark, A: Manual de Cuidados Neonatales. Barcelona. Salvat Editores S.A. 362-368. 1987.

Colonna, F. et al. "The Kangaroo-Mother Method: Evaluation of an alternative model for the care of low-birth weight newborns in developing countries". Journal of Gynecology and Obstetrics. 31:335-339. 1990.

Cox, S.M. and Gilstrap, L.C. Post partum endometritis. Obstetrics and Gynecology Clinics of North America: 16(2):363-371. 1989.

Díaz Rosello, J. L.; Estol, P. y Martell, M. Guías para la Organización y Normatización Básica de la Asistencia Neonatal. Clap, OPS, Publicación Científica No. 1028. Washington, D.C.

Enkin, M. et al. A Guide to Effective Care in Pregnancy and Childbirth. New York. Oxford University Press. 1990.

Ferris, T. F.: "Toxemia and Hypertension". In: Burrow and Ferris. Medical Complications during Pregnancy. Philadelphia, W.B Saunders. 1-29. 1988.

Herbert, W. N. and Cefalo, R. C. Management of Postpartum Hemorrhage. Clin Obstet Gynecol. Temas Actuales. 2:325--336. 1992.

Kramer, M.S. "Determinants of Low Birth Weight Methodological Assessment and Meta - Analysis". Bull WHO. 65(5):663-737. 1987.

Lodger, W. "Obstetric Factors Associated with Infections of the Fetus and Newborn Infant". In: Remington, J. and Klein, J.: Infectious Diseases of the Fetus and Newborn Infant. Philadelphia. W.B. Saunders Co. 1014-1035. 1983.

Lucas, W.E. Postpartum Hemorrhage. Clin Obstet Gynecol. 23:637-646. 1980.

McGregor, J. A. and French, J. I. "Uso de Antibióticos en la Rotura Prematura de Membranas Pretérmino: Motivos y Resultados". Clin Obstet Ginecol. Temas Actuales. 2:325-336. 1992.

"Report of Working Group of the British Association of Perinatal Medicine and Neonatal Nurses Association in Categories of Babies Requiring Neonatal Care". Arch Dis Child. 67(7) 868-9. 1992.

Roberton, N. R. C. "Infección". En: Roberton, N. R. C.: Manual de Cuidados Intensivos Neonatales. Barcelona. Ediciones Medici, S.A. 126-149. 1984.

Roberton, N. R.C. "Reanimación y Cuidados Iniciales del Recién Nacido". En: Roberton, N. R. C.: Manual de Cuidados Intensivos Neonatales. Barcelona. Ediciones Medici, S.A. 32-50. 1984.

Roberton, N. R. C. "Trastornos de la Glucosa". En: Roberton, N. R. C.: Manual de Cuidados Intensivos Neonatales. Barcelona. Ediciones Medici, S.A. 150-158. 1984.

Rooney, C. et al. A Review of the Evidence on the Effectiveness of Antenatal Interventions in Developing Countries, with Regard to Maternal Health Outcomes. Maternal Health and Safe Motherhood Research Programme. Geneva. WHO. 1991.

Star, W. et al. Ambulatory Obstetrics: Protocols for Nurse Practitioners/Nurse Midwives. 2nd. Ed. San Francisco. The Regents. University of California. 1990.

Scopes, J. W. Thermoregulation in the Newborn. In: Avery, Gordon B.: Neonatology, Pathophysiology and Management of the Newborn. 2nd. Ed. Chicago. J.B. Lippincott, Co. 171-180. 1981.

Taber, B. Manual of Gynecologic and Obstetric Emergencies. 2nd. ed. Philadelphia. W.B. Saunders Company. 1984.

Usher, R. H. "The Special Problems of the Premature Infant". In: Avery, Gordon B.: Neonatology, Pathophysiology and Management of the Newborn 2nd. Ed. Chicago. J.B. Lippincott, Co. 230-259. 1981.

Washington University. Department of Medicine. Manual of Medical Therapeutics. Campbell, J.W and Frisse, M. editors. 24th edition. Boston/Toronto. Little, Brown and Company. 1983.

WHO. The Prevention and Management of Post-Partum Haemorrhage. Report of a Technical Working Group. Geneva. WHO. 1989.

MODULE IV:

HOW TO CREATE VISUAL MATERIALS TO TRAIN TRADITIONAL BIRTH ATTENDANTS

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INTRODUCTION

This document describes visual materials that can aid the presentation of technical information to traditional birth attendants. First, visual materials that can be used for any topic are described. Second, a list of visual materials is given for each of the technical topics in pregnancy, labor and delivery, postpartum, and the newborn. Finally, visual material and techniques for evaluating knowledge are presented.

For each visual material, the supplies, instructions for construction, and how and when to use it in the development of each technical topic are described.

The trainer must use his or her own criteria to choose the best way to apply the material. Creativity should be used to adapt and/or modify the techniques and materials to the specific needs of each group, always remembering that visual material is a medium and is not an end-product in and of itself.

MATERIALS FOR TEACHING ANY TOPIC

1. USING DRAWINGS, PUZZLES, PUPPETS, CINEMA, TV AND OTHER MATERIALS

1.1 DRAWINGS

a) Materials needed:

Thin cardboard, tape, plastic wrap, scissors, oversized paper, crayons, markers, tempera paint, or another material that can be used to draw and paint.

b) How to make drawings:

The picture is drawn on paper (sheets of bond or newsprint) and is attached to the cardboard, making it more durable and easy to handle. The only thing left to do is to put a message on each picture. It helps to cover the drawing with plastic to protect it; it can then be placed on the floor or any other place.

c) How to use drawings:

Drawings may be done in black and white so that the students can color them. This is very important in communities where the color and design of the clothing helps provide a better identification with the drawing's message.

It is very important to review the drawing with the participants to ascertain that it actually does transmit the desired message.

d) When to use drawings:

A teaching session on virtually any topic could be initiated by showing a drawing and asking what it represents. Examples of questions include:

- What do you see in this picture?
- What are the dangers?
- Why does this happen?
- What can we do?

The drawing can also be used at the end to assess the retention of key messages.

Students can also make the drawings themselves and explain to the group what the drawing represents and then begin the discussion on a given topic. This technique encourages the participation of all the attendees. The fact that they cannot read and write doesn't matter because everyone can draw. One can help the students develop more confidence in their drawing ability by asking them to begin by drawing aspects of their daily life (animals, harvests, house, children) and then continue drawing situations in pregnancy, labor and delivery, and the postpartum period. Some people refuse to draw, stating that they have never done it before and don't know how. If you leave them alone with paper and crayons, however, the enthusiasm of the group is usually contagious and sooner or later they will begin to draw. It is better to form small groups, asking each group to make a drawing among various people. Participation and the interchange of ideas is stimulated this way.

1.2 PUZZLES

a) Materials needed:

Thin cardboard, plastic wrap, sandpaper, scissors, tape, drawing material (markers, pencils, paints).

b) How to make puzzles:

Draw a picture on the cardboard, preferably in color. Cut it into irregular forms to look like the pieces of a puzzle. The drawing should be relatively simple with well-defined contours.

It helps to cover the pieces with plastic so that the puzzle can be assembled anywhere (for example, on the floor). This way, the pieces do not get dirty, nor do they deteriorate as quickly.

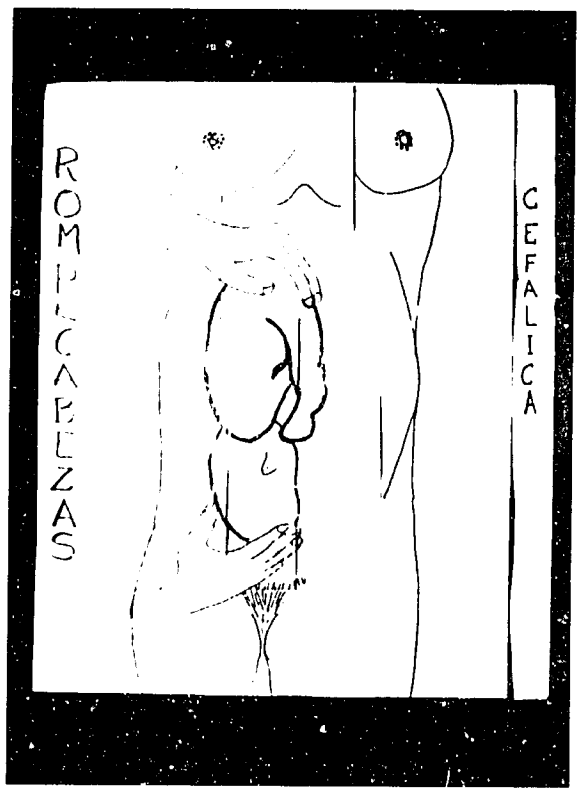
c) How to use puzzles:

Form small groups of approximately five persons and ask them to assemble the puzzle and explain what the picture represents.

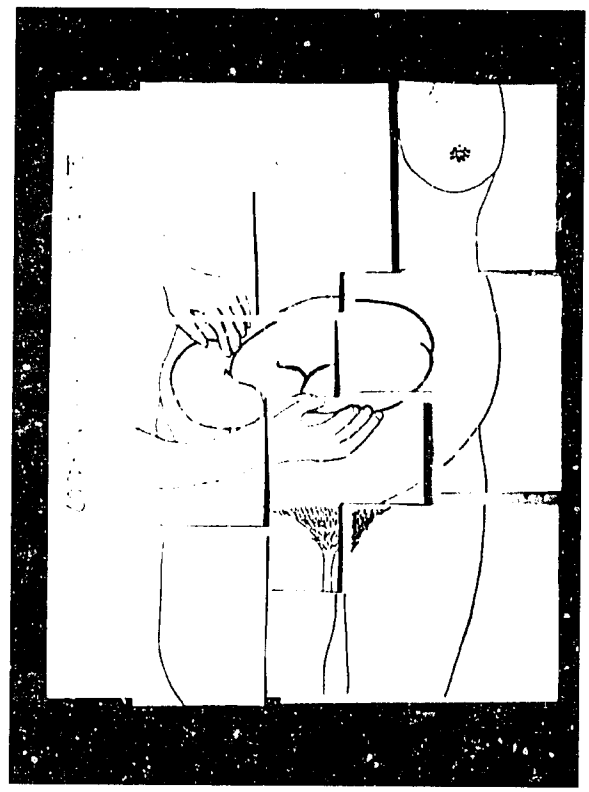
When the puzzle is put together, it can be left on the floor or on a table, or it can be hung on the wall or on a flannelboard (a piece of sandpaper on the back of each piece will help it stick).

d) When to use puzzles:

Puzzles are a useful tool for initiating the presentation of a topic. The participants can assemble the puzzle and then explain what they see in it. The puzzle can also be used at the end of a topic to evaluate the retention of key messages.



Puzzle showing cephalic presentation



Puzzle showing transverse lie

1.3 PUPPETS

a) Materials needed:

Thin cardboard or thick sheets of paper, wooden sticks 30-40cm (can be sticks from a tree), drawing materials, scissors, a blanket or piece of cloth, a pole or broom, two chairs or tables.

b) How to make puppets:

Pictures of people, cars, and beds can be drawn on the paper or cardboard, and then cut out and taped to the wooden stick. Drawings should be 20 to 30 cms high. The indispensable figures for almost any topic are the pregnant mother, the TBA, the husband, the mother-in-law, a car, a bed and the baby.

To make the backdrop, hang a blanket, sheet, shawl or whatever is available over the wooden pole. Place this across two chairs, tables, or sawhorses. The artists place themselves behind the backdrop.

c) How to use puppets:

Puppets may be used by teachers or students.

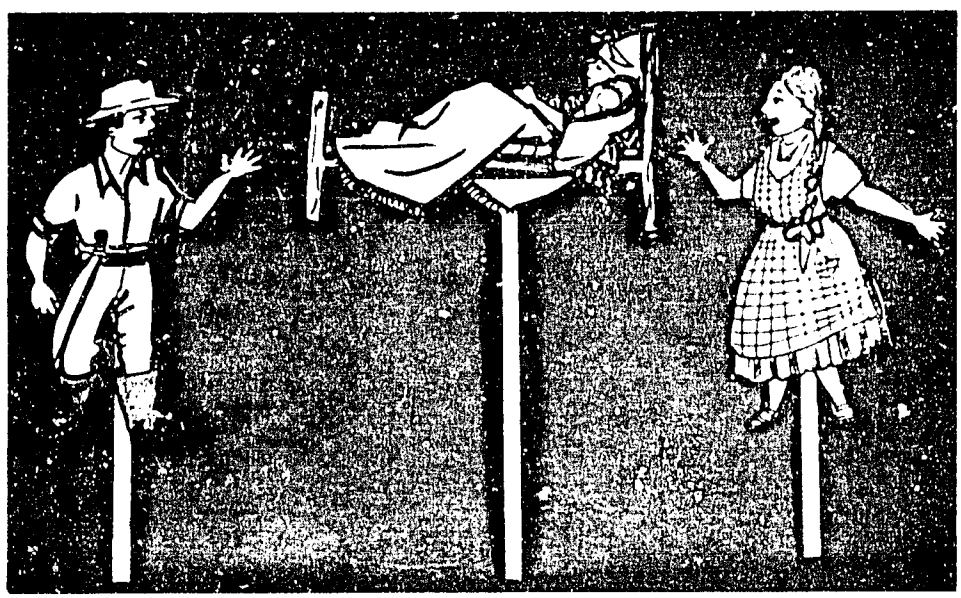
It is useful to have a written outline to ensure all of the messages are transmitted. If the students do the show, they must be given sufficient time to prepare.

d) When to use puppets:

The puppets can be used at any time during the presentation of a topic; for example, in the beginning to introduce a topic, in the middle to reinforce concepts, or at the end.

If the puppets are created by the students, the presentation should be done at the end of the topic to evaluate the transmission and retention of key messages. Puppet shows can also be useful for pre-tests at the beginning of a teaching session in order to detect what the students know and think about the topic to be presented.

puppets showing transfer of sick mother



1.4 MAKE-BELIEVE TELEVISION

a) Materials needed:

A cardboard box, two wooden poles approximately 5 cm longer than the box, paper, crayons, paint or markers (any material for drawing), tape, glue, scissors, cloth or plastic (optional).

b) How to make a television:

To turn a box into a television (TV), make a fairly large hole in one of the wide sides of the box (remember to leave a border on all four sides so that the box doesn't lose its stability). Make two holes in the top of the box at the edges of the window where the two wooden poles will be inserted. The sides and top of the box can be painted with bright colors. Plastic or cloth curtains can be put on either side and on top of the window to decorate the box. To present the messages in story form, make drawings on paper and attach them one after the other in the proper order. When the sequence of drawings is ready, attach one end to one pole and the other end to the other pole. Roll the sheet of drawings so that the first drawing appears in the window between the two poles. The drawings should not be bigger than the "television screen."

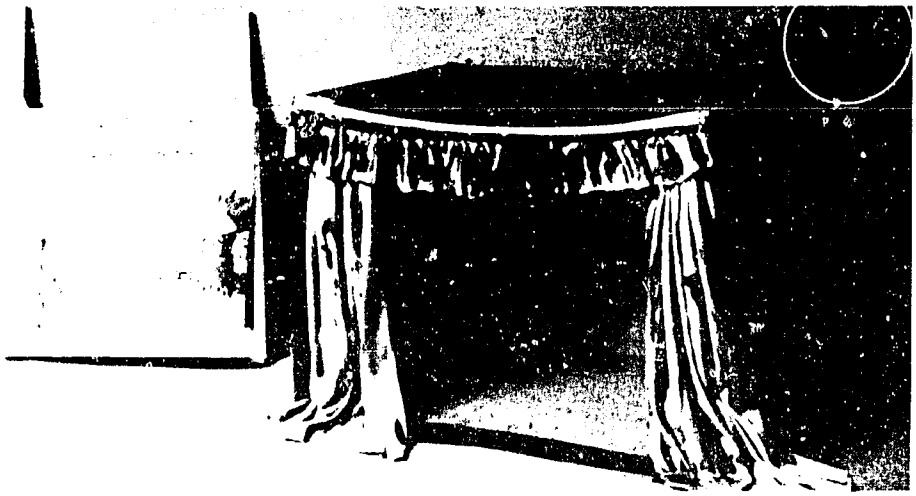
Place the two poles in the holes in the box, one at each edge of the box. To show the drawings, turn the poles in the direction necessary to unroll them. They will then pass by the screen, one by one as if they were a film.

c) How to use a make-believe television:

This is an effective method for presenting a story about how to deal with a given complication. The trainees feel as if they are really viewing a film.

d) When to use a make-believe television:

This technique is ideal for introducing a topic by telling a case history and then discussing what happened with the participants. If there is enough time, the participants can make their own case history and drawings to put in the TV at the end of the topic. This can serve as an evaluation of the teaching session.



How to put the make-believe television together

Make-believe televison showing postpartum infection

1.5 OTHER MATERIALS

a) Improvised Flannelboard:

May be a blanket (remnant), towel or any other material that a piece of sandpaper will stick to. It is then hung with a broom, pole, etc., between two chairs or tables.

b) Plastic:

When colored or transparent plastic is needed, used plastic bags can be used.

c) Tape:

If there is no tape, a mixture of flour and water can be used, or thumbtacks, straight pins, etc.

MATERIALS FOR TEACHING ABOUT COMPLICATIONS OF PREGNANCY

1. PRE-ECLAMPSIA: "Swelling"

1.1 THE GLOVE

a) Materials needed:

You need sand and a rubber glove. If no gloves are available, elastic material that stretches can be used, such as a balloon.

b) How to make the glove:

Fill the glove with sand until it looks like a swollen hand. Tie it so the sand won't spill.

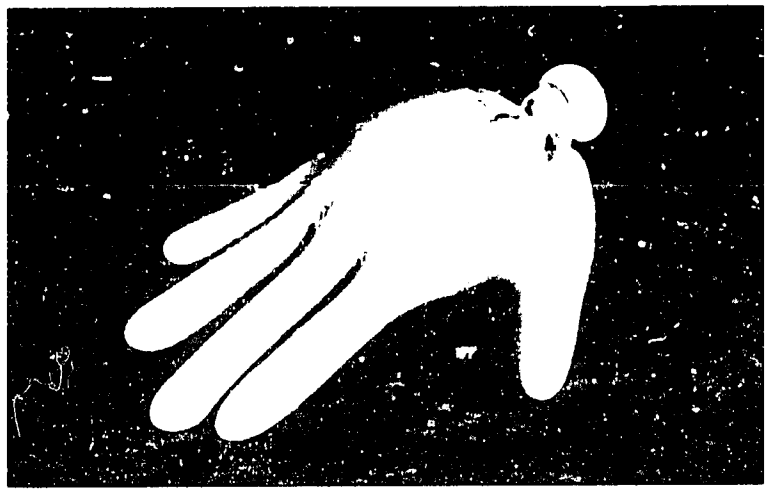
c) How to use the glove:

Place the full glove on a table or other surface, palm down, where all of the participants can see it. Poke it with a finger to produce pitting.

The pitting should remain in the glove just as it does in pre-eclamptic edema. To make the pitting disappear, shake the glove downwards so that the sand fills the empty spaces again.

d) When to use the glove:

During the presentation of the topic, pre-eclampsia, edema or swelling is given as one of the signs. The participants can all poke the glove with their fingers to get an idea of what real-life pitting is.



Glove showing pitting edema

1.2 REPRESENTATION OF A PATIENT WITH PRE-ECLAMPSIA

a) Materials needed:

You need some stockings or plastic bags, latex gloves, cotton or other soft material, and a volunteer.

b) How to make the representation of a patient with pre-eclampsia:

Place cotton inside the gloves and stockings when the person has them on. This should give the appearance of edematous or swollen hands and feet.

c) How to use these materials:

The volunteer may be a teacher or a student and should enter the classroom when the signs of pre-eclampsia are being discussed. She should not enter before, so as not to distract attention. The students can be questioned as to what they see in the person, what it is, what it signifies in terms of illness, etc. A skit can also be performed in which a TBA, a patient with edema, and the relatives participate. A discussion in the patient's house could be acted out in which the important concepts of this disease are reinforced.

For an even greater effect, the "swollen" patient can simulate a convulsion (attack) to portray the most important complication of pre-eclampsia.

1.3 IMPROVISED SPHYGMOMANOMETER AND STETHOSCOPE

a) Materials needed:

Cloth or plastic, cardboard, paste, I.V. tubing or other thin plastic tubing, crayon, marker, masking tape, scissors.

b) How to make a sphygmomanometer and stethoscope:

To make a sphygmomanometer, cut a strip of cardboard the length of the sphygmomanometer sleeve and cover it with plastic or cloth. Attach two 20 cm lengths of plastic tubing, one for the manometer and the other for the inflation bulb. To make them more visible, paint them bright colors. The manometer can be made from a circle of cardboard painted with numbers like a clock and an indicator needle. The inflation bulb can be made from an elongated piece of cloth. Any color cloth or plastic can be used to assemble these pieces.

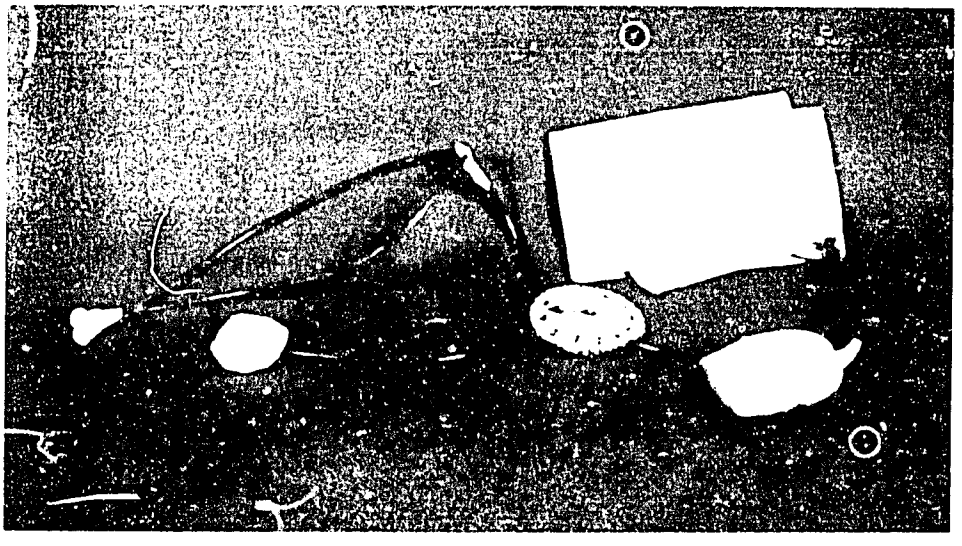
To make a stethoscope, cut out a small circle of cardboard the size of the stethoscope head and reinforce it with masking tape or plastic. Make a Y with pieces of plastic tubing. Attach the cardboard circle (the head) to the long end of the "Y" and attach small circles to the short arms of the "Y" to simulate earpieces.

c) How to use the sphygmomanometer and stethoscope:

Use it like a real sphygmomanometer and stethoscope.

d) When to use the sphygmomanometer and stethoscope:

Use it during the discussions of prenatal care and swelling when explaining how blood pressure is taken. Ask for a volunteer and place the sphygmomanometer on their arm; the "nurse" or "doctor" then places the "stethoscope" on the arm and simulates taking the blood pressure.



Sphygmanometer and Stethoscope

2. HEMORRHAGE: "Bleeding during pregnancy"

2.1 Simulation of blood

a) Materials needed:

A two-liter transparent receptacle of any material, one thin hose or I.V. tubing, bottles of I.V. fluid or a transparent plastic two-liter bottle in which a small hole can be made to connect the hose, and two liters of water. If there are no bottles or I.V. tubing, used ones can be obtained free from hospitals.

b) How to simulate blood:

To obtain the red color that simulates blood, one can use tempera paint, food coloring, red drink mix, or water from beets. Be careful with clothing as some colorants may stain.

Prepare the red-colored water and empty it into the container that has the hose or I.V. tubing connected. Practice to see that the I.V. fluid exits the bottle and flows freely without problems at different flow rates. Make sure the "blood" flows into the other container and does not leak anywhere. The higher the bottle with the hose, the more easily the fluid will flow. Experiment with fast and slow flow rates to be able to regulate the amount of "blood" that comes out during a determined time.

c) How to use the simulation of blood:

Hang the bottle with the hose up high over a transparent container, taking care that the other end of the hose is in the container on the floor. The container must be transparent so that the students can see the amount of "blood" that is accumulating. Use the drop regulator on the I.V. tubing to demonstrate different types of "bleeding." With a slow drip, a considerable quantity of blood accumulates in 2 to 3 hours. A faucet can also be produced to demonstrate major bleeding. To demonstrate massive hemorrhage, tubing is not used. Simply empty a bottle of "blood" into a transparent container.

It is important to demonstrate to the students how much 250 ml of "blood" really is. This is the maximum amount of blood loss which can be considered normal. Also, demonstrate how much is 500 ml, which corresponds to a life-threatening hemorrhage.

d) When to use the simulation of blood:

Use blood during the presentation on hemorrhage in pregnancy. You could demonstrate how rapidly or how slowly a woman can lose blood, the quantity of blood she can lose and over what period of time.

2.2 Blood in the bedclothes

a) Materials needed:

Two liters of blood-colored water (see previous section), a two- or three-liter transparent container, plastic to cover the floor and a part of a sheet, blanket or other colored material.

b) How to make it:

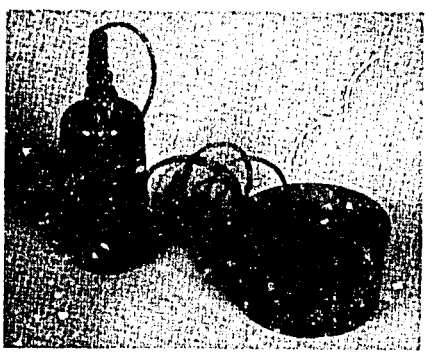
Empty 250 ml and 500 ml of "blood" into two transparent containers. To show how much material is needed to absorb one or two liters of blood, put cloth in the containers so that it absorbs the "blood," making sure there is enough cloth to absorb all of the liquid. Remove the cloth and put it on the floor or table to demonstrate that the "blood" has disappeared from the container. You may use gloves to protect your hands.

c) How and when to use blood in the bedclothes:

When speaking about hemorrhage or bleeding during pregnancy, it is important to demonstrate that many times the blood is not seen, having been absorbed by the patient's bedclothes in her house.

Note that white bedclothes are not usually used in the homes in the Guatemalan highlands. In addition, lighting is not always good. Because of this, blood that is absorbed by the bedclothes can go unnoticed.

Simulating 500 ml of blood (post partum hemorrhage)



Simulating soaked cloth with 500 ml of blood

3. PREMATURE RUPTURE OF MEMBRANES: "When the water breaks too soon"

3.1 The bag of waters and cord prolapse

a) Materials needed:

A transparent large (25-pound) plastic bag, one doll, red plastic or cloth, cotton, scotch tape, masking tape, a sponge, white coloring (correcting fluid, tempera paint or lime), a piece of garden hose or I.V. tubing, a large container (bucket, pail, etc.) with a three- to five-liter capacity.

b) How to make a bag of waters and cord prolapse:

To make a placenta, you can use a sponge that has a shape similar to a placenta or you can fabricate one from red plastic or cloth. Make a "pancake" by placing cotton inside a cloth or plastic covering and attach a twisted rope the length of an umbilical cord.

Place the doll connected to the umbilical cord and placenta inside the large plastic bag; the "placenta" can be stuck to one side of the bag.

Mix water with a small amount of the white coloring so that it looks milky (enough so that it looks like amniotic fluid, but not too white).

c) How to use the bag of waters and cord prolapse:

With the doll and the placenta inside the plastic bag, add enough of the whitish water so that the doll appears to swim in the water, more or less up to the umbilicus of the doll. It is important that the water be clear enough to be able to see the outline of the doll. Hold the bag up and explain what it represents or ask the TBAs what they think it represents.

When it is clear what the bag represents, simulate the rupture of the membranes (when the water breaks) by making a small hole in the bag and allow the whitish water to flow into a container on the floor.

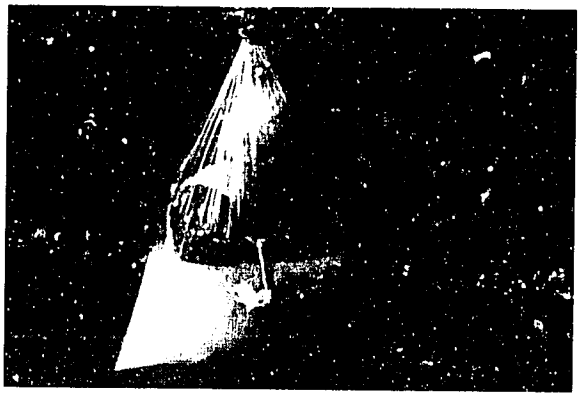
To demonstrate prolapse of the cord, a serious complication of premature rupture of membranes, open the hole a little more and pull out a part of the cord.

d) When to use the bag of waters and cord prolapse:

During the demonstration, begin to discuss the complications, the dangers, how the hole in the bag relates to infection and microbes that can enter this hole and cause infection in the mother and baby.

Regarding cord prolapse, you can demonstrate that when the cord comes before the baby, it can be compressed when the baby's head passes into the vaginal canal. This causes the death of the baby by asphyxia.

A piece of garden hose can be used to demonstrate what happens when the cord is compressed. In the case of the baby's cord, the flow of water or "blood" is interrupted, preventing the blood-carrying oxygen from reaching the baby and causing the baby to choke or drown due to asphyxia from a lack of air.



bag of waters, baby, placenta

rupture of the membranes

cord prolapse

4. PRESENTATION OF ONE BABY OR OF TWINS: "How one baby or twins come"

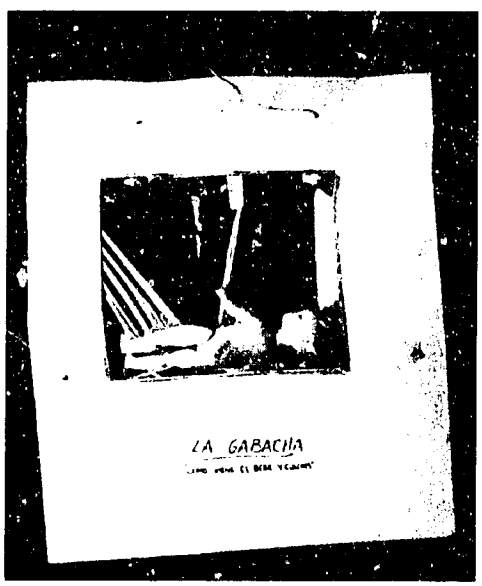
4.1 The Apron

a) Materials needed:

A large doll, two small dolls, a piece of thin cardboard, a large plastic bag, one meter of string, a large cloth bag, safety pins and an apron.

b) How to make an apron:

To construct an apron, use a standard size piece of cardboard and cut a hole out of the center. The hole should be large enough to tape the plastic bag on sideways, leaving one side of the bag open. The plastic bag will make a window so you can see inside where the doll can be placed in different positions. The apron should have a string on top and on both sides so that it can be tied. A cloth bag can also be made to accommodate the doll in different positions.



Apron showing baby in transverse lie

c) How to use the apron:

A volunteer puts the apron on and places the doll in the "window" (plastic bag) in the different positions: cephalic, transverse and podalic.

Something similar can be done with the cloth bag. Secure to the waist with two safety pins and place the doll inside. Put on a cloth apron on top.

d) When to use the apron:

The apron can be used during a discussion on the baby's presentation during pregnancy or delivery.

The apron with the window can be used for demonstrations. The cloth bag and apron can be used during a skit in which the TBA must identify the presentation of the baby.

When discussing twins, use two smaller dolls in place of one large doll, placing them in the "window" or in the cloth bag.

5. PREVIOUS CESAREAN SECTION: "Operation"

5.1 The pillow with a scar and the pregnant woman (cloth doll)

a) Materials needed:

A big cloth doll, a solid-color pillow (preferably maroon, pink or yellow), a handkerchief, a red or brown marker, an apron, two safety pins, a piece of rope, two small balls, cardboard, cotton, a spool of beige or white thread, and a plastic ball.

b) How to make the pillow with a scar and the pregnant woman:

Draw the scar from the cesarean section on the pillow, then attach the pillow to the waist of a volunteer with the safety pins. Put the apron on top.

To make a cloth doll representing a pregnant woman, use a rectangular pillow covered with beige cloth sewn on. Arms and legs are made and filled with cotton. The head is made with cardboard and then the face is drawn on. Use the small balls to make breasts. The cesarean section scar is made with a piece of rope sewn or glued onto the "abdomen." Cut a plastic ball in half and place one half on the abdomen to make the doll look pregnant.

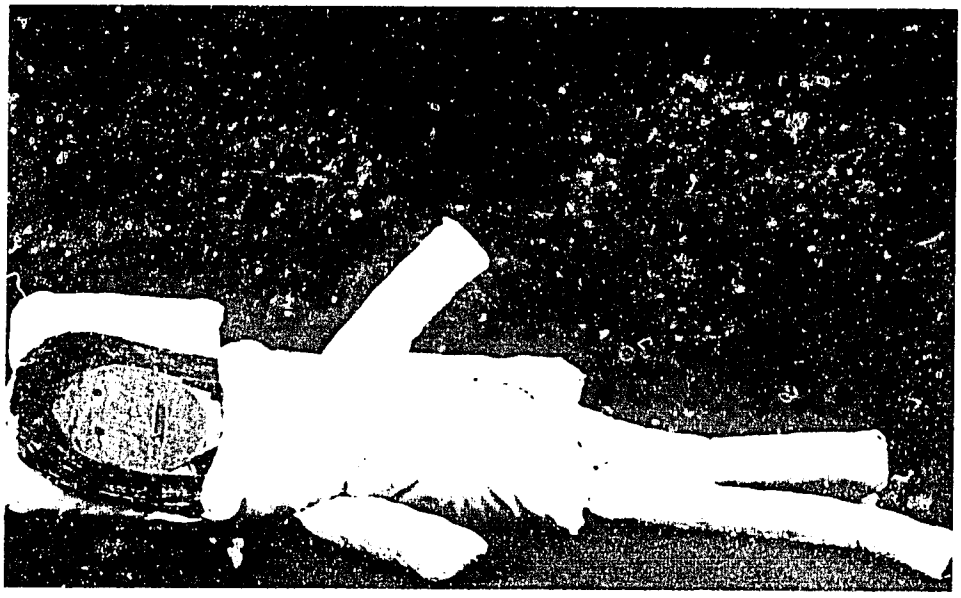
c) How to use the pillow with a scar and the pregnant woman:

One volunteer puts on the pillow and the apron. Another covers her eyes with the handkerchief so that she cannot see. She then examines the person who is wearing the pillow.

Of course, she does not see the scar on the pillow. Afterwards, the handkerchief is removed so that she can see. On touching the rope scar, she can feel the suture which indicates the possibility of a previous cesarean section. The doll can be used in the same manner.

d) When to use the pillow with a scar and the pregnant woman:

This can be used during the discussion of previous cesarean sections. The importance of this exercise is that one must always look at the pregnant woman's abdomen to see if there is a scar from a previous cesarean section. If the abdomen is not uncovered so that it can be examined, the scar will not be detected.



pregnant woman with previous cesarian section scar

5.2 Drawings

a) Materials needed:

Cardboard, pencils, paint or crayons.

b) How to make them:

Draw a picture of a woman with a cesarean section scar on her abdomen. Puzzles can also be used.

c) How to use the drawings:

Show the drawing to the group and discuss the following: What does the drawing represent? What problems may exist? Why? What should you do?

d) When to use the drawings:

Drawings are used to emphasize how important it is for the TBAs to examine the abdomen to see if the woman had a previous cesarean section.

6. PREMATURE LABOR: "Pain before it is time"

6.1 Demonstrating Premature Labor

a) Materials needed:

One large doll and one small doll, two aprons, two cloth bags and safety pins.

b) How to demonstrate premature labor:

Two volunteers are needed. The first attaches a cloth bag to her abdomen with safety pins, places the large doll inside, and ties the apron over it. The second repeats the process, only with the small doll.

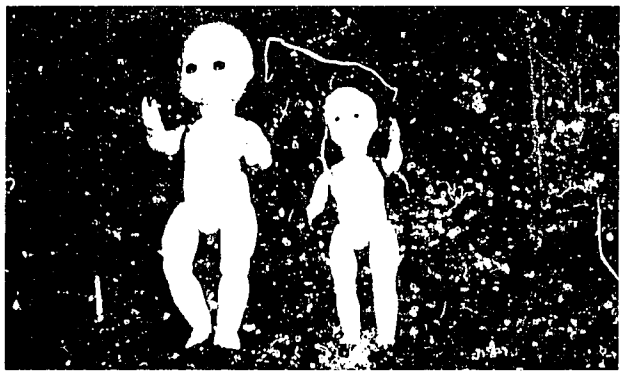
c) How to use the demonstration:

Ask for two volunteers to represent pregnant women and another to play the role of the TBA. The "TBA" examines the abdomens of both "pregnant" women.

d) When to use the demonstration:

It can be used during the teaching session on premature labor. During the discussion, emphasis must be placed on detecting the difference in the size of the belly.

The "TBA" and the group should not see who gets which doll. At the end of the exam, take the two dolls out of their sacks to demonstrate the size of a term baby compared to the size of a premature baby.



term baby and premature baby

MATERIALS FOR TEACHING ABOUT COMPLICATIONS OF LABOR AND DELIVERY

1. TRANSVERSE LIE: "Crosswise baby" BREECH PRESENTATION: "Baby coming feet or buttocks first"

1.1 The Birthing Box and Basket

a) Materials needed:

A large doll the size of a baby (preferably of cloth) with its placenta (see Premature Rupture of Membranes for the description of how to make a placenta), a small round basket, a cardboard box, scissors, transparent plastic, crayons, cardboard or bond paper.

b) How to make the birthing box and baby:

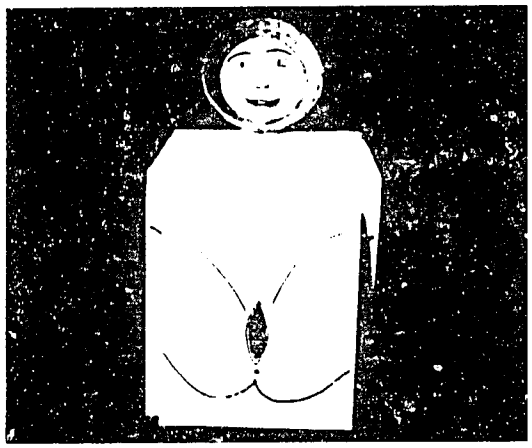
To prepare the basket, cut the bottom out, leaving a rim around the edge. The basket is used to simulate the birth canal.

To make the labor and delivery box, a cardboard box is needed. Make a round hole big enough to allow the passage of the doll in one of the ends. Open a large hole in the opposite end through which an arm can be placed to manipulate the doll through the "birth opening."

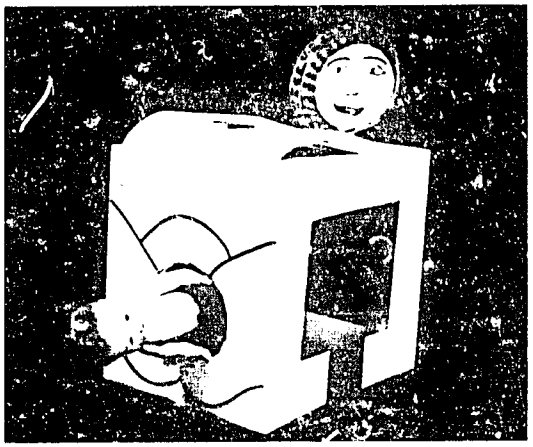
If desired, transparent plastic windows can be made in either side of the box so that the participants can observe what is inside. A rudimentary drawing can also be made on the box: the woman's legs, the vaginal opening, the head, the breasts, and on the sides, the hands. This will make the box resemble a pregnant woman. The breasts and the hands can be made with left-over pieces of the box.

c) How to use the birthing box:

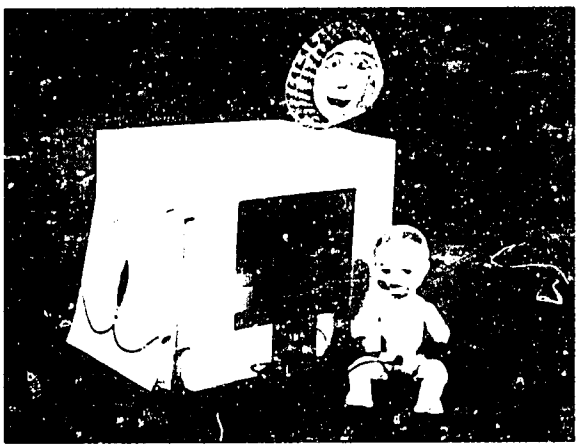
If the labor and delivery box is used, one person puts an arm through the larger hole in the end of the box and pushes the doll through the "birth opening," simulating the movements of a baby when it is born in the breech position.



Birthing Box



simulating the delivery of the baby

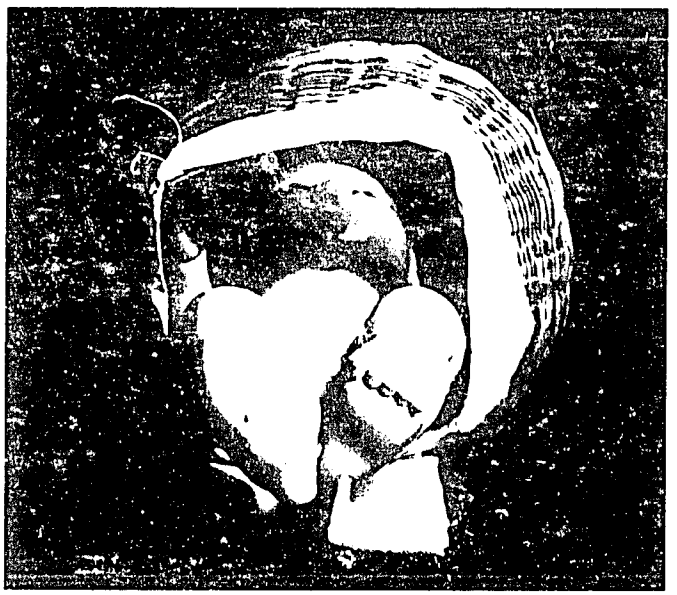


delivered baby and placenta

d) How to use the birthing basket:

If a basket is used, one person must hold it while another person demonstrates the movements of a baby born in the breech position through the opening in the basket.

The basket can be used to demonstrate that a baby can never be born in the transverse lie. Place the doll parallel to the basket, demonstrating that in this presentation the baby cannot pass through the opening.



Birthing Basket

baby delivering in breech presentation

e) When to use the birthing basket and baby:

In teaching this topic, you must first ask the TBAs to show how they usually attend these deliveries. The use of inappropriate maneuvers can thus be observed.

Afterwards, demonstrate the correct form of attending a breech delivery.

You can demonstrate that when the TBA pulls on the body of a baby in the breech position, the head and arms extend. Because of this the baby cannot pass through the birth canal and remains trapped inside.

2. PROLONGED LABOR: "When the pains last too long"

2.1 Drawing

a) Materials needed:

Pencils, paper, paint.

b) How to make the drawing:

Draw a picture of a woman in labor, with a rising sun and a setting sun (which represents 12 hours). Drawings may also be made of the moon rising and the moon setting and of a new candle at the beginning of the night and a used up candle at the end of the night. Puzzles, puppets and skits may also be used.

c) How to use the drawing:

If a drawing or puzzle is used, you should discuss the following: What does the drawing represent? What problems can occur? Why? What must you do? The same can be done with a puppet show or a skit.

d) When to use the drawing:

The objective here is to emphasize the importance of the duration of labor, which should not be longer than 12 hours in either primiparas or multiparas. The sun which rises and then sets is to represent the 12 hours.

3. THE USE OF OXYTOCIN: "Labor injections"

3.1 The Suffering Baby

a) Materials needed:

A plastic doll, a placenta with an umbilical cord, a transparent plastic pail, red colored water to simulate blood and a 5 ml or 10 ml syringe.

b) How to make a suffering baby:

The construction of a placenta is described in the section on "Premature Rupture of the Membranes." How to make "blood" is described in the section on "Bleeding in Pregnancy."

c) How to use the suffering baby:

Put the blood into the transparent pail placed on a table. One person will act like the baby and hold the doll in her hands. Another person will take the placenta to demonstrate the different kinds of contractions and what happens to the placenta during each contraction. First, present normal contractions: the baby "breathes" or receives oxygen when there is no contraction. During normal contractions, there is enough time between one contraction and the next for the baby to breathe well and receive enough oxygen. The person representing the baby is calm, breathes well, is content, and moves normally.

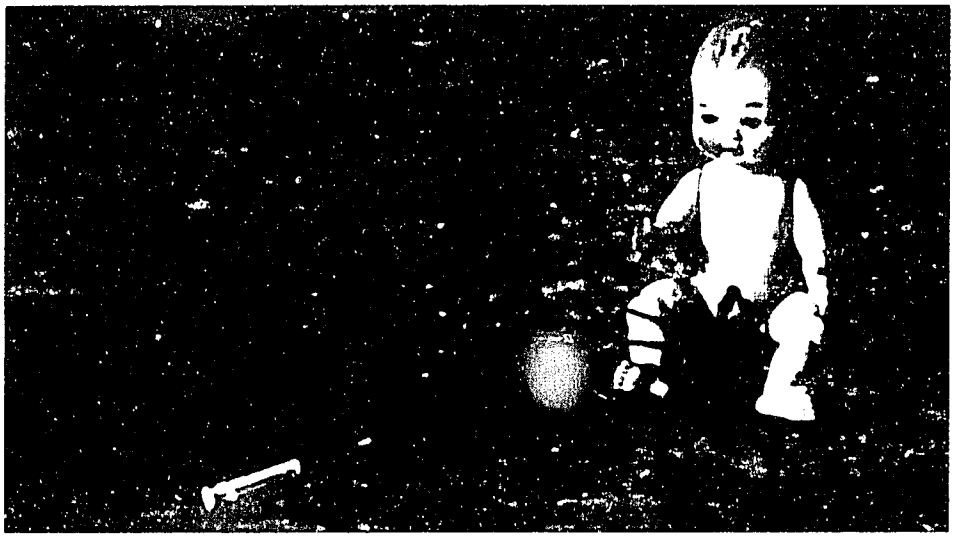
The placenta is placed in the plastic pail and filled with "blood" to suggest what happens when there are no contractions. When there is a contraction, take the placenta out of the pail and squeeze it out, showing that there is no blood in the placenta and oxygen does not reach the baby.

After normal contractions have been demonstrated, present the contractions caused by oxytocin. These are more <u>frequent</u>, last <u>longer</u>, and <u>don't leave enough time</u> between contractions for the baby to breathe well and recuperate. The person representing the baby makes breathing efforts but cannot breathe. She becomes weaker and weaker and eventually dies, falling to the floor.

d) When to use the suffering baby:

When teaching about labor, discuss the inappropriate use of oxytocin injections to "speed up" labor and provide force. The more dramatic the representation, the more effective the participant learning will be.

A drawing about oxytocin can also be used here, as well as skits in which the TBA must explain to the family of the laboring woman that the labor injection is bad.



**baby, placenta,
blood and oxytocin injection**

**simulating contractions caused
by oxytocin**

MATERIALS FOR TEACHING ABOUT POSTPARTUM COMPLICATIONS

1. HEMORRHAGE: "Bleeding after delivery"

1.1 Blood, placenta and ball

a) Materials needed:

A sponge or fabricated placenta (see section on ruptured membranes), an orange or a hard ball the size of an orange, an empty two-liter plastic container, a piece of red cloth, masking tape and a safety pin. Also needed are all the materials described in the section on "Bleeding during Pregnancy."

b) How to make the blood and placenta:

The two-liter bottle should have both ends cut off so that it resembles a cylinder. Make a bag from the red cloth and attach the open end of the bag to one of the cylinder's openings. Then attach the placenta, with its cord, to the inside of the bag. Use a safety pin. Push the bag inside the cylinder, so that when the cord is pulled, the bag also moves.

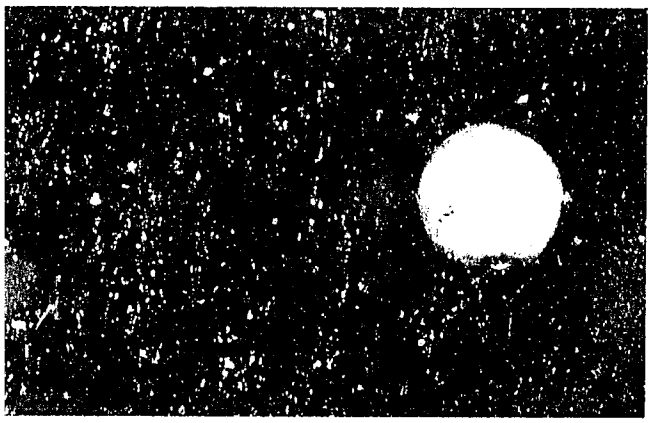
c) How to use the blood, placenta and ball:

The sponge or fabricated placenta and the orange or ball can be used to demonstrate how to palpate the contracted uterus after delivery. When it is large and soft, it feels like the sponge and when it is well-contracted, it feels like the hard ball or orange.

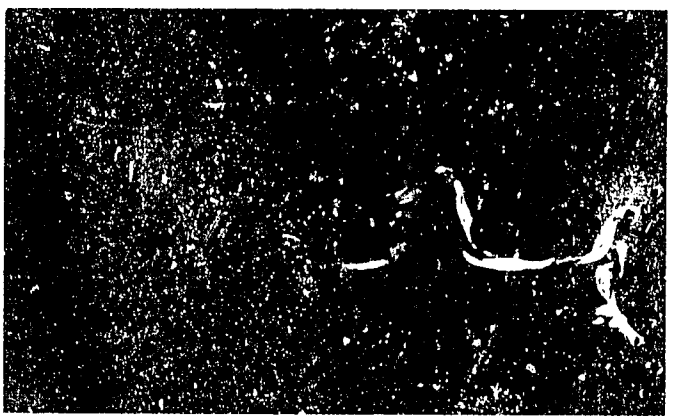
The cylinder can be used to demonstrate what happens when the cord is pulled. The red bag represents the uterus, which inverts when the cord is pulled to remove the placenta. The ball can also be used to demonstrate the kind of massage that must be performed to contract the uterus.

d) When to use the blood, placenta and ball:

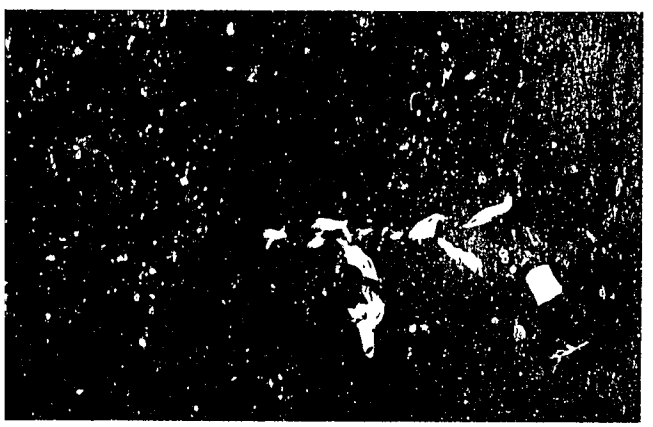
The "blood" is used to teach the topic of "Hemorrhage after Delivery" and to demonstrate the quantity of blood that a woman can lose and the time period over which she can bleed to death. The placenta and the ball are used to demonstrate the importance of the contraction of the uterus after delivery and how to perform uterine massage. The cylinder helps to demonstrate that it is important NOT to pull on the cord in order to remove the placenta.



orange and sponge simulating a hard uterus and a soft uterus



inverted uterus with placenta attached



delivered placenta and normal birth canal

2. SEPSIS: "Infection after delivery"

2.1 Drawing

a) Materials needed:

Pencils, paint, paper, cardboard.

b) How to make the drawing:

Make a drawing of a woman in bed with a fever. Puzzles, puppets, cinema or a skit may also be used.

c) How to use the drawing:

The materials are used to stimulate group discussion. Questions that can help arrive at the key points of this topic include: What does the drawing, puppet etc. represent? What is the problem? Why? What should be done?

d) When to use the drawing:

Use it to emphasize the danger signs of infection after delivery and their management.

2.2 Orange or Grapefruit and Sponge

a) Materials needed:

A sponge and an orange or a grapefruit.

b) How to use the orange or grapefruit and sponge:

The sponge represents a soft uterus that has not contracted because it is infected. The orange or grapefruit represents a healthy uterus that has contracted firmly. The TBAs should palpate the soft sponge and the hard orange and compare the consistency of both. Also point out that an uninfected uterus is not painful, whereas the infected uterus is very tender when palpated.

c) When to use the orange or grapefruit and sponge:

Use it to demonstrate how to detect an infected uterus.

Another important activity is the representation of a woman with normal afterbirth pains, periodic pain that increases when the baby nurses. In post-partum infection, the pain is constant and does not go away.

One participant can represent a woman with normal afterbirth pains, and another can represent a woman with a postpartum infection. A TBA examines them both, pointing out the differences she finds between the woman with normal afterbirth pains and the one with a postpartum infection.

2.3 Stained Cloth

a) Materials needed:

A piece of white cloth and brown shoe polish.

b) How to make the stained cloth:

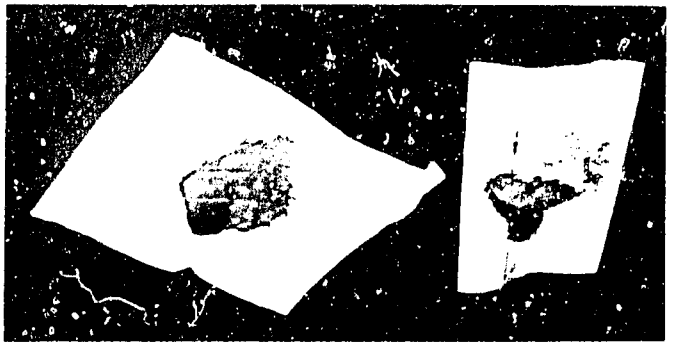
Color the center of the cloth with the shoe polish to represent the coffee colored lochia that indicates infection.

c) How to use the stained cloth:

The TBAs should look at the stained cloth and at the color of the lochia to identify the danger sign.

d) When to use the stained cloth:

These materials are useful in showing what the stained cloths removed in the vaginal examination of a sick woman are like. The cloth may also be foul smelling. It is important to reinforce the importance of observing not only the patient's vagina but also the color and the odor of the blood.



stained cloth showing infected lochia

MATERIALS FOR TEACHING ABOUT NEONATAL COMPLICATIONS

1. ASPHYXIA: "Baby born tired, almost dead"

1.1 Doll

a) Materials needed:

A doll, a small cloth, a straw or a piece of I.V. tubing, a very small (1/2-pound) plastic bag, and masking tape.

b) How to make the doll:

To make the baby's "lungs," tape the plastic bag in the middle to represent two lungs. Put the straw into the opening of the bag. Tape this to the doll's thorax, leaving the straw level with the doll's mouth. Alternatively, the I.V. tubing can be threaded through a hole made beneath the doll's chin and pulled up to a hole made in the doll's mouth. Air can then be introduced through the doll's mouth.

c) How to use the doll:

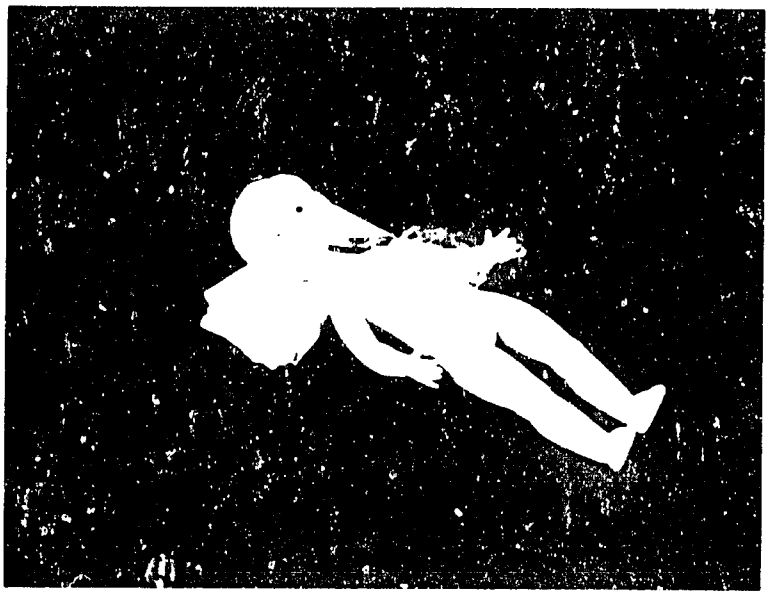
With the doll, the bag and the straw, demonstrate the amount of air needed to inflate the lungs of an asphyxiated newborn. Point out that the two parts of the bag inflate. Also, demonstrate that the air inside a person's mouth is sufficient to fill the lungs.

d) When to use the doll:

In teaching the topic of asphyxia in the newborn, resuscitation techniques should be demonstrated in the following order: (1) take the doll and a towel or small piece of cloth; (2) clean the nose and mouth of the doll; (3) rub the head and trunk vigorously; and (4) check to see if the doll "breathes" on its own; if not, initiate mouth-to-mouth resuscitation.

It is important to demonstrate that after each respiration, the person giving mouth-to-mouth resuscitation must separate his or her mouth from the doll so that air can exit. In the same manner, emphasize that if too much air is inflated into the lungs (plastic bag), they can burst.

Another very important exercise is simulating the signs of asphyxia, comparing this behavior with that of a baby born without asphyxia, represented by another person. The signs of a baby with asphyxia are: (1) no cry; (2) not breathing or breathing with difficulty; (3) not moving, (4) being limp, (5) arms and legs stretched out and unflexed; (6) skin color pale, blue, purple. A normal baby has a lusty cry, breathes well, moves his or her arms and legs actively, and is pink in color.



doll with lungs
used to teach resuscitation techniques

2. SEPSIS: "Infection in the baby"

2.1 Drawing

a) Materials needed:

Pencils, paint, paper, cardboard.

b) How to make the drawing:

Draw the five important signs of sepsis: crying baby, not breastfeeding, sadness, with fever or hypothermia, difficult breathing. Skits are also useful.

c) How to use the drawing:

In the skit, the behavior of a newborn who has an infection (the five danger signs) should be compared with a healthy baby. Emphasize that the baby can die in very little time if proper treatment is not given. Drawings can help clarify the danger signs.

2.2 Baby with infected umbilicus

a) Materials needed:

A big or small doll, a piece of umbilical tape, a piece of I.V. tubing, brown shoe polish, a piece of cloth or a baby's umbilical binder.

b) How to make the infected umbilicus:

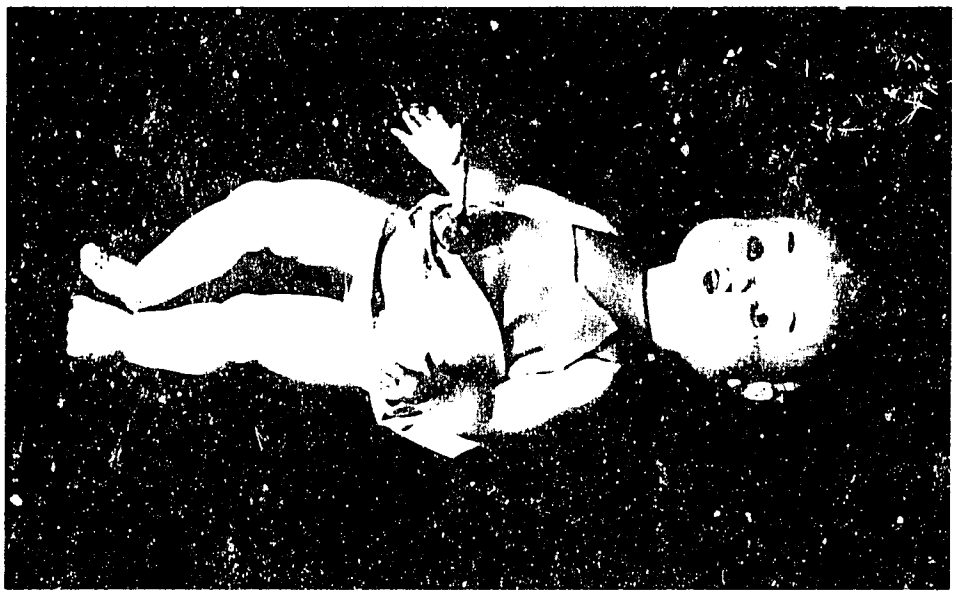
Put shoe polish on the umbilical tape and on a piece of white cloth folded in the shape of an umbilical binder. Put this on the umbilical area of a doll that has a piece of I.V. tubing attached to portray the umbilical cord.

c) How to use the baby with infected umbilicus:

This demonstration is useful in relating infection of the umbilicus as one of the probable signs of neonatal sepsis.

d) When to use the baby with infected umbilicus:

Point out the color and foul odor that comes from an infected umbilicus. This will make an impression on the student, who should also be told that she must always examine and smell the umbilicus of newborn babies.



infected umbilicus

3. LOW BIRTHWEIGHT OR PREMATURE BABY: "How to care for a little baby"

3.1 Incubator, Kangaroo Mother

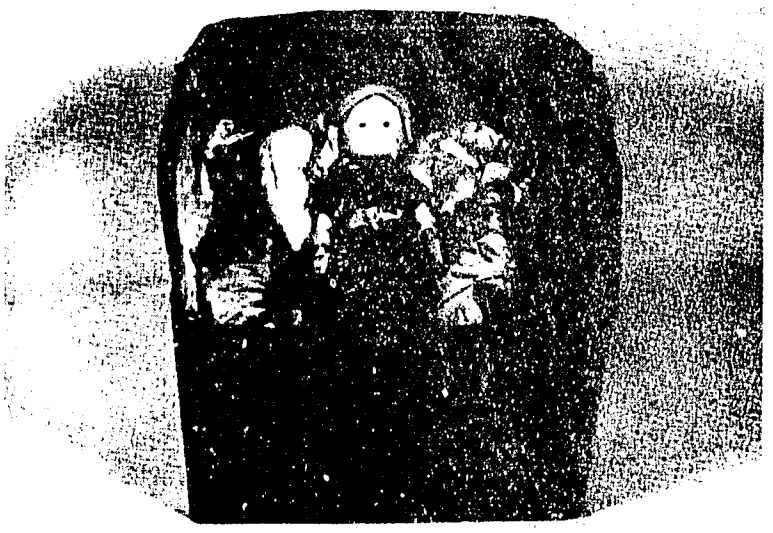
a) Materials needed:

A large doll and a small one, a cap, gloves, socks, four to five small blankets, four towels, plastic, newsprint, four bottles with screwcaps and one cardboard box.

b) How to make an incubator and demonstrate a kangaroo mother:

To demonstrate the difference between a baby at term with a good weight and a premature or low birthweight baby, place the large doll beside the small one and demonstrate the difference in size.

To put together an improvised "incubator," line the bottom and sides of the cardboard box with newsprint or plastic and cover with a blanket. Fill the four bottles with hot water, screw the tops on tightly, and wrap them in towels or blankets. Lay them on all four sides in the bottom of the box. Take the doll and dress it in a hat, gloves, socks, shirt and pants (or in the clothing available) and place it in the center of the bottles. Cover the doll with two more blankets.



simulated incubator

Ask the students to feel with their hands the heat generated by the hot water bottles. It is important to emphasize that the bottles should never be in direct contact with the baby (in this case the doll). Do not burn the baby! The water must be changed when it cools off to maintain a constant temperature inside the box.

To demonstrate a "kangaroo mother," an unclothed doll is all that is needed. A volunteer places the doll inside her blouse and covers herself well with a blanket or shawl. In this way, you show that the baby is in constant contact with the mother's skin, remains warm and can breastfeed constantly.

c) How and when to use the incubator and kangaroo mother:

In teaching how to care for a premature or low birthweight newborn, it is very important to discuss these two technologies carefully.

MATERIALS FOR EVALUATION

1. EVALUATING ACQUIRED KNOWLEDGE

Many techniques can be used to make the evaluation of acquired knowledge more interesting. Described below are some activities that promote active participation by the students and, in addition, are fun.

1.1 The Lottery

a) Materials needed:

A cardboard box, crayons or paint, paper, a pencil and a wooden stick.

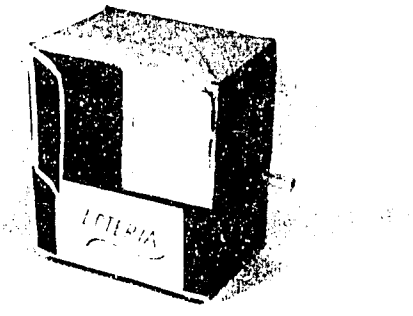
b) How to make a lottery:

Paint the box in bright colors with pictures related to the training. Close the box, leaving a small door. Make a hole in either side so that the stick can be passed through and the box then rotated.

Make some cards (as in Bingo or the Lottery) with drawings of the training topics. Play with beans or corn kernels.

c) How to use the lottery:

Each time the box is rotated, take out a paper and read the question. Someone must answer the question. The person who fills his or her card first must answer another question. If the answer is correct, that person wins a prize.



Lottery

1.2 The Question Wheel

a) Materials needed:

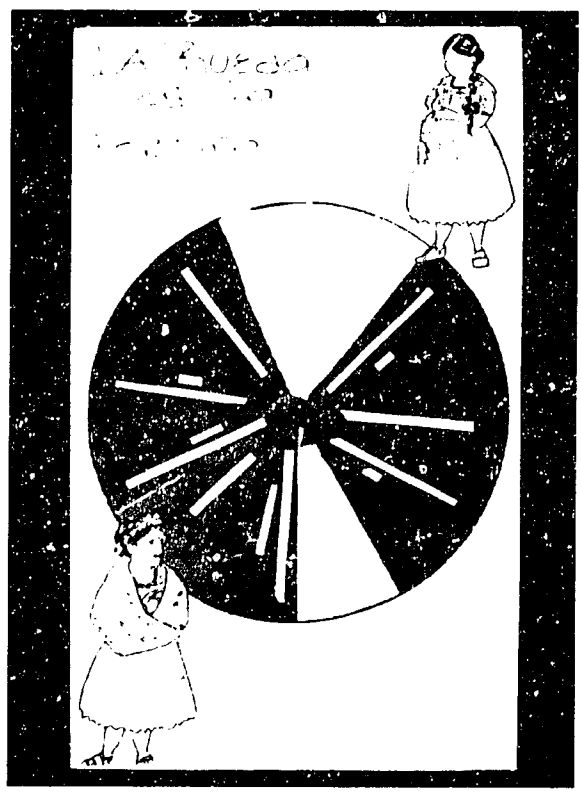
Cardboard, crayons, paint, a pencil, scissors and tape.

b) How to make a question wheel:

Paint a big circle in the center of the cardboard. Divide it into various sections, making each section a different color. Write questions on pieces of paper and stick one on each section. Draw an arrow and place it in the center; a piece of cardboard must be placed between the arrow and the wheel and secured with a nail so that the arrow will spin.

c) How to use the question wheel:

Ask each participant to spin the arrow. When it stops, the arrow will be pointing to a question that the participant must answer. Prizes and penalties can be put on the wheel to make it more interesting.



Question Wheel

1.3 The Daisy

a) Materials needed:

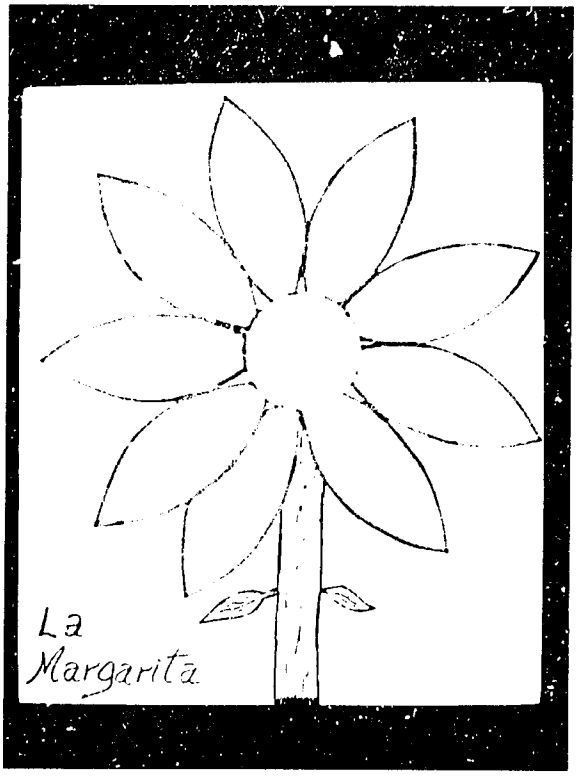
Paper, crayons, pencils, scissors, tape.

b) How to make the daisy:

Cut and paint a circle to be the center of the flower. Cut as many petals as will fit around the circle, attaching a question to the back of each petal. Finally, attach the completed flower to the wall, a window or a flannelboard.

c) How to use the daisy:

Each participant must take a petal, read the question or have it read by someone, and answer it.



Daisy

1.4 Fishing

a) Materials needed:

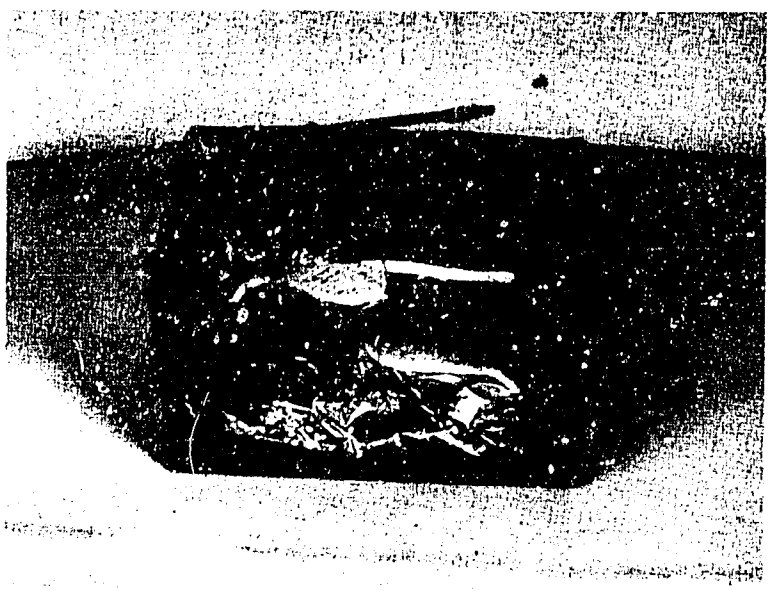
Styrofoam, a knife, a marker or wax crayon, a large bucket filled with water, a cane or rod, string, a hook, and paper.

b) How to make the fish:

Make several fish with the styrofoam and paint with bright colors. On each fish make a bow or loop so that the fish can be pulled up by the hook and rod. Write questions on pieces of paper and attach one question to each fish.

c) How to use the fish:

Each participant must catch a fish and answer the question. The person who catches the most fish and correctly answers the most questions wins a prize.



Fishing

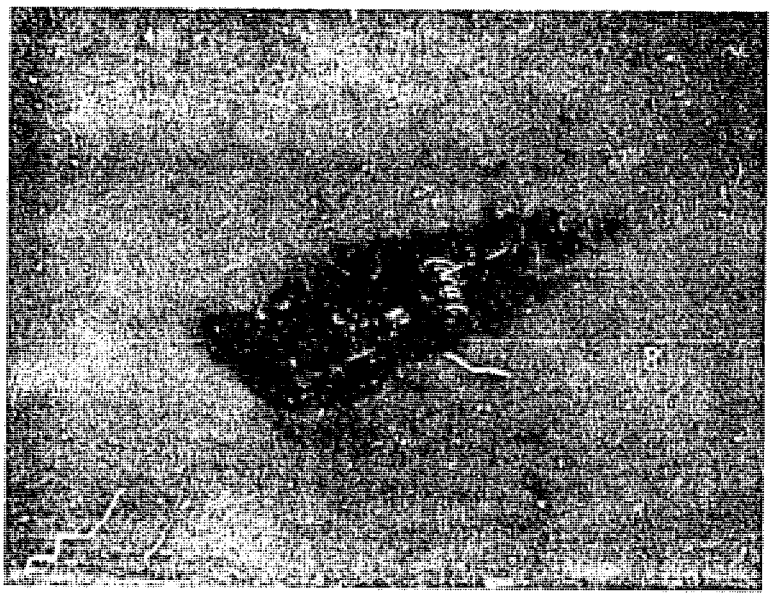
1.5 Spin the Bottle

a) Materials needed:

A bottle and paper on which questions can be written.

b) How to make spin the bottle:

Put pieces of paper with the questions written on them inside the bottle. The participants sit in a circle. Lay the bottle on its side on the floor and then spin it. The person to whom the neck of the bottle points must take a question out of the bottle and answer it.



Spin the Bottle

1.6 The Question Ball

a) Materials needed:

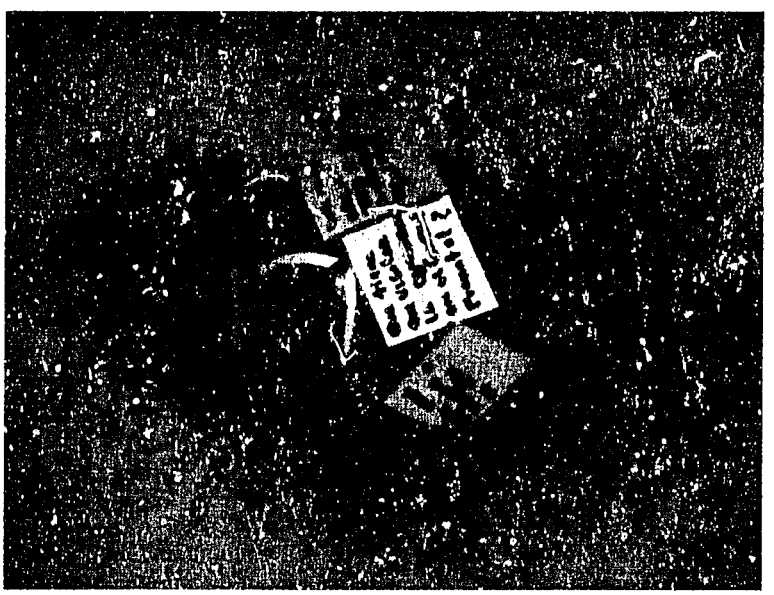
A ball, paper, a pencil, tape.

b) How to make the question ball:

Write questions on pieces of paper and tape them all over the ball.

c) How to use the question ball:

The participants sit in a circle. The facilitator explains that the person who receives the ball must take off one of the questions, answer it, and then throw the ball to another participant.



Question Ball

1.7 The Clown

a) Materials needed:

Thin cardboard, balloons, crayons, scissors and tape.

b) How to make the clown:

Draw a clown and paint it with bright colors. Write questions on pieces of paper and put them inside the balloons. Inflate the balloons and tape them to various parts of the clown.

c) How to use the clown:

Each participant must burst a balloon and answer the question written on the piece of paper inside. Candies, prizes and penalties can also be put in the balloons.

The Clown

BIBLIOGRAPHY

Evans, D. Technology in Nonformal Education. Amherst. Center for International Education. Massachusetts University. 1976.

Kindervatter, S. Learner-Centered Training for Learner-Centered Programs. Amherst. Center for International Education. Massachusetts University. 1977.

Guatemala. Ministerio de Salud Pública y Asistencia Social. Guía del docente para la capacitación de comadronas. Guatemala. 1989.

NDS/UNICEF. Communicating with pictures in Nepal. Kathmandu. UNICEF. 1976.

Saunders, D. Visual Communication. Handbook: Teaching and Learning Using Simple Visual Materials. London: The University Press. 1979.

Vella, J. Visual aids for nonformal education. Amherst. Center for International Education. Massachusetts University. 1979.

Werner, D. Donde no hay doctor. México. Editorial Pax. 1981.

Werner, D. Enseñando a promover la salud. México. Editorial Pax.

MODULE V:

TECHNICAL INFORMATION FOR TRADITIONAL BIRTH ATTENDANTS

TABLE OF CONTENTS

INTRODUCTION

This module on the principal obstetric and neonatal emergencies was developed for training workshops with traditional birth attendants (TBAs). The module is structured as follows:

A. **Key Points of the Topic**

This section contains a one-page summary of the most important points which TBAs should learn regarding each topic. This summary should be used to review key points or to evaluate the comprehension of a topic.

B. **Questions**

This series of questions can be used to stimulate discussion about what the complication is, why it is important, how to recognize it, and what the TBA can do about it.

C. **Answers**

Correct responses to the questions mentioned above are provided so that the educator can evaluate the TBAs. This section is intended to facilitate TBA participation and understanding through questions and discussions of the most important points on each topic.

D. **Practical Activities to Develop the Topic**

This section suggests practical activities that can be used in the presentation of each topic. The visual material in this module is given in the presentation of each topic.

Note: The topic "Prenatal Care" appears fourth rather than first because the detection of complications such as hemorrhage, premature rupture of membranes and pre-eclampsia are found in the section on Prenatal Care. A review of the activities necessary in a prenatal visit is easier to reach if each of the complications has been individually treated beforehand.

The language used in this module is very basic so that the educator has less trouble adapting his/her technical vocabulary to the TBAs' level.

COMPLICATIONS DURING PREGNANCY

1. BLEEDING DURING PREGNANCY

KEY POINTS

- ***What is vaginal bleeding during pregnancy?***

  Vaginal bleeding during pregnancy is always abnormal. It is dangerous. There should not be any bleeding at any time during pregnancy.

- ***What is the danger?***

  The mother and the baby may die.

- ***What must the TBA examine?***

  - Look to see if blood is coming from the vagina.
  - Feel the position and presentation of the baby.

- ***What questions must the TBA ask?***

  - Is there blood coming from the vagina?
  - Does the woman have pain with the bleeding?
  - Was there bleeding that stopped on its own?

- ***What must the TBA do?***

  - Counsel all pregnant women about the dangers and signs of bleeding and about the need to go to the hospital in the case of bleeding.
  - Refer the bleeding patient to the hospital.
  - Keep the patient lying down. If possible, she should remain lying down during transport.
  - Give liquids.
  - If a bleeding patient refuses to go to the hospital, tell her she should remain lying down in her bed and that she should have the baby in the hospital.
  - Send all patients who have had bleeding that stopped on its own to the hospital to have the baby.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well:

■ ***What is bleeding during pregnancy?***

Questions for the TBAs:	Answers:
- What do you think causes bleeding during pregnancy? - Have you ever seen a woman with bleeding during pregnancy? - What was it like? What happened to the woman? What happened to the baby?	- Any vaginal bleeding during pregnancy is abnormal. - It is always dangerous.

■ ***Why is bleeding during pregnancy dangerous?***

Questions for the TBAs:	Answers:
- Why is it important to know about bleeding during pregnancy? - What are the dangers to the mother? - What quantity of blood can a person lose before fainting or dying?	- Many mothers and babies have died because of bleeding in pregnancy. The mother can bleed to death in a very short time. - The blood usually comes from the uterus. - Women who are malnourished (anemic) may faint or die even if they only lose a very small amount of blood. - We cannot see inside the body of a woman to see why she is bleeding. The problem may be worse than we realize.

■ ***How do we recognize bleeding during pregnancy?***

Questions for the TBAs:	Answers:
- How much bleeding is normal in pregnancy?	- Any quantity of vaginal bleeding during pregnancy is abnormal and dangerous.
- How do you know when a woman is suffering from bleeding during pregnancy?	- The bleeding may be drop by drop or a little at a time for a long time, or it may be a large amount of blood in a short period of time.
- How does a woman know she is bleeding?	
- Does the woman always know when she is bleeding?	
- Do women know that bleeding in pregnancy is dangerous?	- Even if it stops on its own, the problem may continue inside the uterus. The bleeding may return later on in the pregnancy or during labor.
- Is there pain with bleeding during pregnancy?	- Sometimes the woman feels pain in the lower abdomen or belly; sometimes she does not feel pain.

PRACTICAL ACTIVITIES

See Module IV, page 12, Hemorrhage: "Bleeding during pregnancy."

1. Demonstration of bleeding.
2. Demonstration of how blood is absorbed by clothes, sheets, strips of cloth, etc.

■ ***What can the TBA do in the case of bleeding?***

Questions for the TBAs:	Answers:
- What should you counsel pregnant patients concerning bleeding during pregnancy?	- Counsel all pregnant women and their families on the dangers of bleeding during pregnancy.
- What should be done when a woman has bleeding during pregnancy?	- Teach the pregnant woman who has bleeding that she must go to the hospital immediately. - Send all pregnant women with bleeding to the hospital immediately. - Give plenty of liquids to the woman during transport. Do not let her walk. Keep her lying down as much as possible.
- When a pregnant woman has had bleeding that stopped on its own, what should be done and why?	- When a pregnant woman has had bleeding that stopped on its own, she must be sent to the hospital to deliver her baby because the problem that caused the bleeding may still be present inside the uterus. We cannot see inside and the bleeding may return during delivery.
- What should be done when a woman with bleeding does not want to go to the hospital?	- If a bleeding woman does not want to go to the hospital, advise her to stay in bed, to drink plenty of fluids, and insist that she deliver her baby in the hospital.

PRACTICAL ACTIVITIES

1. Counselling a pregnant woman to report bleeding and telling her why she should do so.
2. Referring a woman with bleeding to the hospital. The TBA must explain the danger to the pregnant woman and her family and convince them of the necessity of the referral.
3. Convincing a pregnant woman who has had bleeding that stopped spontaneously why she must have the baby in the hospital.
4. Taking care of a woman with bleeding who refuses to go to the hospital.
5. Taking care of a woman with bleeding during her transfer to the hospital.

2. HIGH BLOOD PRESSURE AND SWELLING DURING PREGNANCY

KEY POINTS

- ***What is high blood pressure and swelling during pregnancy?***

  When the woman's blood pressure gets too high during pregnancy, her hands, face, and feet may get swollen. This occurs after the sixth month of pregnancy.

- ***What is the danger?***

  Swelling and high blood pressure can cause the mother to have a stroke. It can also cause the death of the mother and the baby.

- ***What must the TBA examine?***

  - If there is a bad headache, blurred vision, dizziness, heartburn, convulsions, swelling of the hands or face.

- ***What must the TBA do?***

  - Counsel the patients about the dangers and signs of high blood pressure and swelling of the hands and face.
  - Send all patients to the health center or post after the sixth month so that they can have their blood pressure taken at least once every month.
  - Send women with swelling or other danger signs to the health center or post to have their blood pressure taken immediately.
  - If a woman has high blood pressure, refer her to the hospital immediately so that she can be treated. All pregnant women with high blood pressure should have their baby in the hospital.
  - If the woman does not want to go to the hospital, she should drink plenty of liquids and remain lying down on her left side. In addition, the TBA should visit her every day to see how she is. If she worsens, she must be urgently taken to the hospital.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What are swelling and high blood pressure during pregnancy?***

Questions for the TBAs:	Answers:
- Do you know what high blood pressure and swelling are? - Have any of you seen a woman with high blood pressure and swelling? - What did you see? What happened to the mother? What happened to the baby?	- High blood pressure and swelling are problems that pregnant women get. - The hands and face are swollen and the blood pressure gets high. - There may be headaches and problems with vision. If it is very severe, there may be convulsions. High blood pressure can cause a stroke. - The mother and baby may die.

PRACTICAL ACTIVITIES

See Module IV, page 9, Pre-Eclampsia: "Swelling."

1. Dramatize a person with convulsions to make sure the TBAs know what we are talking about. Have one of them play the part of the sick mother.

■ ***Why is it important to know about swelling and high blood pressure during pregnancy?***

Questions for the TBAs:	Answers:
- Why do you think it is important to know about high blood pressure and swelling during pregnancy? - What do you think can happen to pregnant women who suffer from high blood pressure and swelling during pregnancy? - What do you think can happen to babies when their mothers suffer from high blood pressure and swelling?	- It is a disease/a problem that can be very serious and can kill the mother and the baby.

■ ***How do we recognize swelling and high blood pressure during pregnancy?***

Questions for the TBAs:	Answers:
- Can it happen during the delivery or in the postnatal period? - Is the swelling most common at the beginning or at the end of the pregnancy? - What is the difference between abnormal swelling and the swelling that is "normal" in pregnancy? - How can you recognize abnormal swelling?	- This problem usually begins after the 6th month of pregnancy and can occur from that time until one or two days after delivery. - Normal swelling is seen only in the feet, not in the rest of the body. - The signs are swelling of the face and hands. There may be very high blood pressure, a bad headache, and blurred vision. When it is very serious there can be convulsions. - When there are convulsions, the lives of the mother and the baby are in greater danger.

PRACTICAL ACTIVITIES

See Module IV, Page 9, Pre-Eclampsia: "Swelling."

1. Demonstration of swollen hand - glove.
2. Demonstration of swollen hands and feet with a skit of a patient with headache, blurred vision, and epigastric pain.

■ ***What can the TBA do in the case of swelling and high blood pressure during pregnancy?***

Questions for the TBAs:	Answers:
- What should you do when you see a woman with swollen hands and face?	- Counsel pregnant women about the dangers and signs of swelling and high blood pressure.
- What can you do so that mothers and babies do not die from this?	- After the 6th month of pregnancy, the TBA should send all patients to the health center or post to have their blood pressure taken.
- What can you do when a woman has swollen hands and face and does not want to go to the hospital?	- Look for signs of dangerous swelling in all pregnant women after the 6th month.
	- Immediately send all patients with high blood pressure to the hospital for treatment. All women with high blood pressure should deliver the baby in the hospital.
	- A woman who has swollen hands and face and does not want to go to the hospital must stay in bed. Visit her daily. If she gets worse, the TBA must insist on referring her to the hospital.

PRACTICAL ACTIVITIES

Skits may be performed about the following points:

1. How to teach women about swelling.
2. How to refer a woman with abnormal swelling to a hospital.
3. How to convince a woman with signs of swelling to be referred to the hospital.
4. Taking care of a woman with signs of high blood pressure (swelling) who refuses a referral to the hospital.

3. WHEN THE WATER BAG BREAKS TOO SOON

KEY POINTS

- ***What is it?***

When the water bag breaks 12 hours or more before it is time to have the baby, it is too soon. Water leaks out because the bag in which the baby lies has got a leak.

- ***What is the danger?***

The water bag leaks from a tiny hole. Germs can enter the uterus from this same hole and give the mother and the baby an infection. They can both die from this infection.

- ***What must the TBA examine?***

- Is water leaking from the vagina? When the water bag is normal, it is cloudy and whitish, like the water from inside a coconut. There is more leakage when the woman gets up and walks.
- If the woman has pain.
- If the woman has a fever.
- If the vaginal discharge smells bad.

- ***What must the TBA do?***

- Counsel women about the signs and dangers of early rupture of the membranes and about the need for telling the TBA quickly that this has happened.
- If the water has been broken for 12 hours or more and labor does not begin, send the woman to the hospital.
- If the water bag is broken and the woman has a fever or bad-smelling vaginal discharge, take her to the hospital immediately.

DISCUSSION GUIDE

Use the following questions to help the TBA understand this topic well:

■ ***What happens when the water bag breaks too soon?***

Questions:	Answers:
- When do you think the water bag should break in a normal situation?	- Usually the water bag breaks when the baby is born.
- When do you think it is too soon for the water bag to break?	- Early breaking of the water bag is when it breaks more than 12 hours before labor begins.

■ ***Why is it important to know about the water bag that breaks too soon?***

Questions for the TBAs:	Answers:
- Why is the water bag important?	- When the water bag is not broken or when it is completely closed, it protects the mother and the baby from germs.
- What is the water bag for?	
- Have you ever seen a case where the water bag broke too soon?	
- If yes, what happened to the mother? What happened to the baby?	
- What can happen to the mother and the baby when the water bag breaks more than 12 hours before labor begins?	- Once the water bag breaks, germs can enter and infect the mother and the baby. If they become infected, there is great danger that they may die.

■ ***How do we know that the water bag has broken?***

Questions for the TBAs:	Answers:
- What does the water from the uterus looks like?	- When the bag of water breaks, water leaks from the vagina.
- How do you know it is the water from the uterus and not blood, urine or vaginal discharge? How are these different?	- She may feel wet when she gets up from a chair or bed, or when she lies down. - There may be a lot of water all at once, or it may come drop by drop over a long period of time.
- What is the normal odor of the water from the uterus?	- Normally, the water smells like coconut water.
- How does the water smell when it is infected?	- Water that is infected smells bad.
- If the water bag has broken, how long can you wait for labor to begin or for the birth of the baby?	- If labor pains do not begin within 12 hours, it is a sign that the water bag broke too early.
- If the woman doesn't say, is it possible to know if the water bag has broken?	
- Do women know how important this is?	

PRACTICAL ACTIVITIES

See Module IV, page 14, Premature rupture of membranes: "When the water breaks too soon."

Perform a demonstration on:

1. The water bag
2. The rupture of the water bag
3. Cord prolapse
4. The functions of the cord

■ ***What can the TBA do when the water bag breaks too soon?***

Questions for the TBAs:	Answers:
- How can you know if the water bag has broken in a pregnant woman who hasn't yet begun labor? - Do women know that they must immediately tell the TBA when the water bag breaks? - Do women know why it is dangerous when the water bag breaks too early?	- Counsel pregnant women about the dangers and signs they should know regarding the water bag breaking, and the importance of telling the TBA rapidly.
- How many hours can you wait for the birth of the baby after the water bag has broken?	- Send the woman to the hospital immediately if labor does not begin within 12 hours of when the water bag breaks.
- What are the signs that tell us that the pregnant woman is infected and must immediately be taken to the hospital for treatment?	- Water that is infected smells bad and the woman may have a fever. - Send the woman to the hospital immediately if her water bag breaks and she has a fever or foul-smelling vaginal discharge.
- How can you explain to your patients the importance of reporting when the water bag breaks?	- Once the bag of water breaks, germs can enter and infect the mother and the baby. If they become infected, there is great danger that they may die.

PRACTICAL ACTIVITIES

Skits can be performed on the following points:

1. How to teach pregnant women to identify and report when the water bag breaks.
2. Convincing a woman whose water bag breaks too early that she must go to the hospital and explaining the dangers of the situation.

4. PRENATAL EXAMINATIONS

KEY POINTS

- ***What are prenatal examinations?***

  Prenatal care is much more than an examination. Every pregnant woman should have prenatal examinations during her pregnancy to see if everything is going well and to find out if she should give birth in the hospital because of some danger to herself or her baby.

- ***Why is it important?***

  If pregnant women do not receive necessary care and regular check-ups which permit possible dangers to be detected, the baby or the mother may have problems during labor and delivery.

- ***What must the TBA examine?***

  - The position and presentation of the baby, especially in the ninth month.
  - If there are twins.
  - If there is a scar from a previous cesarean section.
  - If the hands or the face of the mother is swollen.

- ***What questions must the TBA ask?***

  - When was the last menstrual period?
  - If the water bag has broken.
  - If there has been bleeding.
  - If there was a previous cesarean section.

- ***What must the TBA do?***

  - Calculate the date when the baby will be born.
  - Send all pregnant women to the health center or post after the sixth month to have their blood pressure taken and to confirm the fetal presentation.
  - Counsel all pregnant patients about the seven danger signs of pregnancy.
  - Send pregnant women with signs of danger to the hospital because they should not have the baby in their homes.

- ***THE SEVEN DANGER SIGNS OF PREGNANCY ARE:***

  1. TWINS
  2. WHEN THE BABY IS COMING IN AN ABNORMAL PRESENTATION
  3. PREVIOUS CESAREAN SECTION
  4. PREMATURE LABOR
  5. WHEN THE WATER BAG BREAKS TOO SOON soon
  6. BLEEDING IN PREGNANCY
  7. SWELLING

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What is good prenatal care? Why is it important?***

Questions for the TBAs:	Answers:
- Do you give prenatal care?	- In a prenatal visit, the pregnant woman should be examined. She should be asked how the pregnancy has been going.
- Why do you give prenatal care?	- This is done to find out if there is any problem or complication, and to see if the woman needs to be sent for treatment.
- What do you do during prenatal visits?	- It is very important to counsel pregnant women during prenatal visits.
- What other things should you do during prenatal visits and why?	- Prenatal visits promote the best possible outcome.
- When (in which month) do you think prenatal visits are important and why?	- The TBA should do at least one prenatal visit in the ninth month of pregnancy. It should be in the ninth month in order to know what position the baby will be in for delivery. In the ninth month, the baby will rarely turn inside the mother. It usually stays in its position, ready to be born.

■ ***Why is prenatal care important?***

Questions for the TBAs:

- Why do you think prenatal care is important?
- Have you had any experience with women who have had problems during their pregnancies?
- What problems or illnesses can occur during pregnancy?
- In what cases do you think it wouldn't be safe to give birth at home?
- What topics do you think you should discuss with pregnant women?

Answers:

- Dangers or complications can be detected during a prenatal visit.
- Pregnant women in danger can then be sent to the health center or post to receive treatment.
- During the prenatal visit, we can also see if the woman can have the baby in her home or if she should be sent to the hospital to give birth.
- It provides time to counsel the pregnant woman about danger signs and things she must know and to prepare her for having the baby.

■ ***What must the TBA do in the prenatal visit?***

Questions for the TBAs:

- What should you ask during the prenatal visit?
- What should you examine during the prenatal visit?
- How can you determine the position of the baby?
- What do you do to find the baby's head when you examine the belly?
- How is the examination of the belly different from a massage?
- How do you look for abnormal swelling?
- How do you calculate the date when you expect the birth/ delivery?

Answers:

- Ask the woman about ruptured membranes or vaginal bleeding during the pregnancy.
- Examine and palpate the belly to discover the baby's position and presentation, especially in the ninth month. See where the baby's head is. See if there are twins or if there is a scar from a previous cesarean section.
- Examine the woman to see if there is any abnormal swelling (hands or face).
- Figure out the date when you expect the baby to be born (nine months after the last period or menstruation).

- What dangers do you counsel your pregnant patients about? Why?	- Counsel pregnant women about the dangers and signs of: * The water bag breaking too soon. * Premature labor. * Bleeding in pregnancy. * Swelling of the hands and face. * The need for a hospital delivery in the case of mal-presentation of the baby, twins or a previous cesarean section.
- In which cases must a woman have the baby in the hospital?	- Send any woman who has complications to the hospital for treatment.
- When should pregnant women go to the health center or post so that they can be examined? What for?	- Between the seventh and ninth months, send the woman to the health center or post so that they can check her blood pressure, the baby's position, and presentation.
- How can you remember to do all of these things in the prenatal visit?	

PRACTICAL ACTIVITIES

See Module IV, pages 9-18, "Bleeding during pregnancy," "Swelling," "When the water breaks too soon," "How one baby or twins come," and "Operation."

Skits can be performed about the following points:

1. Examine a real, live pregnant woman. If this is not possible, examine a non-pregnant volunteer.
2. Practice calculating the estimated delivery date and gestational age.

COMPLICATIONS DURING LABOR AND DELIVERY

5. NORMAL BIRTH AND DANGEROUS BIRTH

KEY POINTS

- ***What is a dangerous birth?***

  Dangerous birth is when the woman has a problem that puts her life or the life of her baby in danger. These problems include bleeding during pregnancy, swelling, ruptured membranes too early, twins, previous cesarean section, malposition of the baby, labor pains for more than 12 hours, and labor pains before it is time.

- ***What is the danger?***

  If any of these problems exists, the life of the mother and of the baby is in danger.

- ***What must the TBA examine?***

  - When she attends a delivery, especially if the woman has not had prenatal care, the TBA must examine the woman to determine the position and presentation of the baby, if there are twins, if there is a scar from a previous cesarean section, if she is swollen and if the water bag broke too early.
  - She must ask the woman if she had any hemorrhage and if she has completed nine months of pregnancy.
  - The TBA must see how long the labor pains last.

- ***What must the TBA do?***

  - If the pregnant woman has a complication, the TBA should tell her about the complication and why she needs to have the baby in the hospital.
  - The TBA should attend the delivery in the cleanest manner possible.
  - If the pregnant woman has a complication, the TBA should send her to the hospital to have the baby.
  - The TBA should explain that if the labor pains last for more than 12 hours and the baby has not been born, the woman should go to the hospital.
  - The TBA should have the woman push only when she feels the urge to push, when she has the urge to go to the bathroom, and when she has a pain.

- If the woman has pushed for one hour and the baby has not been born, the TBA should refer her to the hospital.
- Injections must NOT be used during labor and delivery because these can kill the baby and rupture the woman's uterus.
- The woman must NOT be given alcohol.
- Vaginal examinations should NOT be performed.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What are normal labor pains?***

Questions for the TBAs:	Answers:
- How long should labor last for women with their first baby and for women who have already had a baby?	- Normal labor pains last no more than 12 hours for women with their first baby and 8 hours for women who have already had a baby.
- What presentation should the baby normally be born in?	- The baby is normally born head first.

■ ***Why is it important to know about labor pains?***

Questions for the TBAs:	Answers:
- Why is it important to know about labor pains?	- If the labor lasts for too long or the baby isn't coming right, the baby can die.
- What problems can there be? (Prolongation, oxytocin)	
- Have you seen problems with labor pains? What problems? What did you do? What happened?	
- Why can a baby die during labor?	

■ ***How can you know if the woman has real labor pains?***

Questions for the TBAs:	Answers:
- How do you know if the woman has real labor pains? - What are the signs that you know? (The TBA should formulate her own definition of active labor.)	- Reai labor is when the woman can no longer sleep because of the pain and does not eat. The pains are stronger when the woman walks. The uterus becomes very hard. Each pain is stronger, longer and closer together than the one before. There is a pain at least every 5 to 10 minutes.

PRACTICAL ACTIVITIES

A skit can be performed in the following manner:

Ask some of the more experienced TBAs how a woman behaves when she is in active labor, and ask them to explain the difference between active labor and false labor.

■ ***How do we know that it is time for the baby to be born?***

Questions for the TBAs:	Answers:
- How do you know that it is time for the baby to be born? - What is the sign? - When should the woman push? - When should the woman not push?	- It is time for the baby to be born when the woman has pains very frequently, sweats a lot, and feels like she is going to have a bowel movement. This happens when the baby is about to be born. This is when you should have the woman push, never before.
- What happens if you have the woman push very early?	- If she pushes before this time, she will just get tired and her genitals will get swollen. Later on, when she really needs to push, she will not be able to.

■ ***What problems can occur with labor pains?***

Questions for the TBAs:	Answers:
- What position should the baby be in to deliver normally?	- When the baby is not coming in the normal position and presentation (head first). For example, it is buttocks or feet first, or transverse.
- How long should labor last?	- When labor lasts for more than 12 hours.
- How long can the water bag be broken without problems?	- When the water bag has been broken for a 12 hours before labor begins.
- How can we know that the woman has completed nine months of pregnancy and that the labor is not starting too early?	- When the woman hasn't reached her ninth month of pregnancy. - When there are twins.
- What problems can occur with labor pains?	- When oxytocin injections are used (labor injections).

■ ***What is the danger of labor injections?***

Questions:	Answers:
- What does the labor injection do? How does it function?	- Labor injections make the pains stronger and closer together. This is not normal and can harm the mother and the baby.
- What can happen to the baby?	- The baby can suffocate when the labor pains are very close together and do not allow the baby to breathe. The baby can also be harmed by the uterus, if it squeezes or compresses the baby too much.
- What can happen to the mother?	- It is dangerous for the mother because the uterus is working very hard and can rupture, killing the mother and the baby. It can also cause bleeding after delivery because the womb is tired and cannot contract.
- Why is it preferable not to use injections?	- Labor injections should not be used if we want to prevent some of the above mentioned problems.

PRACTICAL ACTIVITIES

See Module IV, page 25, Tne use of Oxytocin: "Labor injections."
Demonstrate the effect of oxytocin.

■ ***What should the TBA do during labor?***

Questions:	Answers:
- What is the most important thing a TBA should do when she arrives at the house of a woman in labor?	- When she arrives at the woman's house, she must: • Ask what time labor began in order to know how long the woman has been in labor.

- How can she help the woman?

- What must she do if the baby is not coming in the normal head-first position?
- What must she do if the pains last for too long?
- What must she do if there are twins or if the woman has had a previous cesarean section?
- What must she do if the water bag broke more than 12 hours before labor began?

- Examine the woman's belly to see what is the baby's position and presentation.
- See if there are twins, if there is a scar from a previous cesarean, or if there is any other complication.

- Encourage the woman. Give her plenty of liquids to drink and have her urinate frequently.

- Refer any woman with a complication to the hospital.

PRACTICAL ACTIVITIES

A skit can be performed about the following points:

1. Examining a woman in labor.
2. Referring a woman whose baby has a malpresentation.
3. A breech baby whose mother does not want to be referred.

■ ***What should the TBA <u>not</u> do during labor?***

<u>Questions for the TBAs</u>:

- What can the TBA do to make labor and delivery safer?
- When should she tell the women to push?
- Why are labor injections dangerous?
- Why is it bad to give alcohol?

<u>Answers</u>:

REMEMBER:

- **NO** labor injections.
- **NO** alcohol.
- **DO NOT** tell the woman to push before it is time.
- **NO VAGINAL EXAMINATIONS.**

PRACTICAL ACTIVITIES

A skit can be performed about:

1. How to determine if the patient is ready to push or if she is pushing involuntarily.
2. How to respond to a patient who is in active labor and asks for an injection.
3. A situation where the mother-in-law or other family member is telling the patient to push when it is still very early, and the TBA must try to explain why she should not push.

6. WHEN THE BABY IS COMING IN A DANGEROUS POSITION

KEY POINTS

- ***What is malpresentation?***

  Malpresentation is when the baby is not coming head first, but rather is coming feet or buttocks first or is in a transverse position, coming with the shoulder or arm first.

- ***What is the danger of malpresentation?***

  Babies who are lying transverse cannot be born alive through the vagina. They can only be born by cesarean section. Also, the woman's uterus can rupture causing the death of the mother and the baby. The head of the baby who comes feet or buttocks first can be trapped inside, and the baby can suffocate.

- ***What must the TBA examine?***

  The woman's belly must be examined at each prenatal visit to see what position and presentation the baby is in. Babies can turn around, so when you arrive to attend a delivery, the woman's belly must be examined again.

- ***What must the TBA do?***

  - Always refer the woman to the hospital if her baby is not coming head first. When possible, go with her to the hospital.
  - If the feet are already outside and there isn't time to send the woman to the hospital, put the woman in the squatting position and have her push hard with each contraction. It is she who delivers the baby. Do not grab the baby when it is delivering, and never pull on the baby because this can cause the baby to stretch out its arms and become trapped. The baby delivers by itself.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What is the breech position?***

Questions:

- Normally, which part of the baby should deliver first?
- What happens when the baby comes feet or buttocks first?

Answers:

- The head should normally be born first.
- Breech birth is when the baby comes feet or buttocks first. These are difficult presentations.

■ ***What is a transverse lie?***

Questions:

- What is the transverse lie?

Answers:

- The transverse lie is when the baby is crosswise inside the mother. This is a dangerous presentation.

■ ***Why is it important to know if the baby is coming in a difficult presentation?***

Questions for the TBAs:

- Have you ever seen a breech delivery?
- What was the delivery like? What happened to the baby?
- Why is a breech delivery more difficult?
- Why is a breech delivery more dangerous for the baby and what can happen to the baby?
- Why is it dangerous when the baby is transverse?
- What can happen to the baby?
- What can happen to the mother?
- Why can't a baby in the transverse lie be born normally?

Answers:

- If the baby is in the breech or transverse presentation, it can die. A baby in the transverse lie can only deliver by cesarean section. If the baby comes buttocks or feet first, the head can be trapped inside and the baby dies. When the baby is in the transverse lie and a cesarean section is not performed, the baby will die, and the mother's uterus can rupture and she can die as well.

PRACTICAL ACTIVITIES

See Module IV, page 21, Transverse lie: "Crosswise baby,"
Breech presentation: "Baby coming feet or buttocks first."

1. Demonstration, with a basket, of a baby in the transverse lie.

■ ***How can you tell if the baby is coming buttocks first?***

Questions:	Answers:
- How can you tell what position the baby is in?	- The TBA must examine the woman's belly and see where the head is.
- What is the difference between doing a massage and doing an examination to see how the baby is coming?	
- How does the baby's head feel?	
- How can you differentiate between the head and the buttocks of the baby?	
- Where is the baby's head found when the baby is coming normally?	- If the buttocks rather than the head is in the lowest area, this means that the baby is not coming normally. This is seen at birth, as the feet or buttocks deliver first.
- Where is the baby's head found if the baby is coming buttocks first?	

■***How can you tell if the baby is in the transverse lie?***

Questions:	Answers:
- Where is the baby's head found when the baby is in the transverse lie?	- In the transverse lie, the baby's head is on one side and the buttocks and feet on the other side. The space above and below is empty.
- Where are the baby's buttocks when the baby is in the transverse lie?	
- What do you feel in the lowest part of the mother's belly?	
- How does the belly look when the baby is in the transverse lie?	- The belly appears very wide.

PRACTICAL ACTIVITIES

See Module IV, page 21, Transverse lie: "Crosswise baby,"
Breech presentation: "Baby coming feet or buttocks first."

A skit may be performed in the following manner:

1. Place a doll in the breech or transverse lie beneath the apron of a TBA. Have another TBA examine her and explain what she finds.
2. Do a demonstration with a cloth apron.

■ ***What can a TBA do if a baby is coming with a dangerous presentation?***

Questions:

- When should a woman be examined to see what position the baby is in?
- What should be done if the baby is buttocks first?
- What should be done if the baby is transverse?

Answers:

- The woman's belly should be examined at the end of the pregnancy and when labor starts to see where the baby's head is. The most important thing to do is to see if the baby is in a normal presentation or if it is coming in an abnormal presentation.

- If the baby is not head first, the woman must be rapidly sent to the hospital to give birth there. The TBA must accompany the woman to the hospital and must be prepared in case the woman gives birth on the way.

PRACTICAL ACTIVITIES

A skit can be performed in the following manner:

1. A TBA calms a woman whose baby is in the breech or transverse presentation, and explains the dangers of a breech or transverse birth and why she must have the baby in the hospital.

■ ***How do you attend a breech delivery?***

Questions:

- Have you ever seen a breech delivery? What was it like and what did you do?
- When should you NOT touch the baby?
- Should you pull on the baby's body?
- What is the best position for the easiest delivery of the baby?
- What can happen if you pull on the baby's body?

Answers:

- If the baby is coming out, the following things must be done:
  - Do NOT touch the baby.
  - Do NOT pull on the baby's body.
  - The woman should be on her knees or squatting, and you should help her push hard when she has a strong contraction.
  - The baby delivers by itself with the help of the mother. It is she who delivers the baby by pushing hard when she has pains.
  - You must never pull the baby's body or grab it because the baby startles inside the uterus and stretches its arms and extends its head. It can thus become trapped and unable to deliver.

PRACTICAL ACTIVITIES

See Module IV, page 21, Transverse lie: "Crosswise baby," Breech presentation: "Baby coming feet or buttocks first."

1. Demonstration of the birthing box.
2. Demonstration of the basket.

COMPLICATIONS AFTER DELIVERY

7. BLEEDING AFTER DELIVERY

KEY POINTS

- *What is bleeding after delivery?*

  Bleeding after delivery is when the woman bleeds a lot after giving birth. This may happen when the placenta is still inside or it may happen after it has come out. Bleeding after delivery is a serious emergency. It is important to immediately get a car or other transportation to the nearest health facility.

- *What is the danger?*

  - If the uterus does not become firm or if the placenta does not deliver, the woman can bleed to death very quickly in one or two hours.
  - Remember that once the baby has been born the mother should not bleed. If she does, she may be in great danger.

- *What must the TBA examine?*

  - Find out whether the placenta came out within 30 minutes of the birth of the baby.
  - Find out if the blood was bright red just after the delivery of the baby (about five minutes).
  - See if the uterus is firm after the delivery of the placenta.
  - See if the woman continues bleeding after the delivery of the placenta.

- *What must the TBA do?*

  - If the placenta does not come out and there is no bleeding, have the woman urinate, massage the uterus to make it firm, have the woman squat and push, push the uterus upwards and pull gently and continuously on the cord in a downwards direction. If the placenta does not deliver within 30 minutes, send the patient to the hospital immediately. Continue massaging the uterus on the way.

- If the placenta has come out and there is bleeding, continuously and vigorously massage the uterus to make it firm. Have the woman urinate. Put the baby to the breast and give the woman plenty of fluids. Meanwhile, find a way to transport the woman immediately to the hospital. Continue massaging the uterus and giving liquids on the way.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What is hemorrhage or bleeding after delivery?***

Questions:

- What is bleeding after delivery?
- How can you tell if a woman is bleeding too much?
- Normally, how many cloths or kotex does a woman use in the first day after delivery? How many on the second day? How many on the third day?

Answers:

- Hemorrhage is when a woman bleeds ½ liter or more of red blood immediately after delivery or in the following days. In other words, it is when a woman bleeds more than normal.

■ ***What is the cause of bleeding after delivery?***

Questions:

- Why does bleeding after a birth occur?
- How long after delivery should the placenta (afterbirth) come out?
- What happens if pieces of the placenta remain inside the uterus?
- What should happen to the uterus after delivery?
- Have you ever seen a woman who got a tear in the vaginal opening?
- What do labor injections have to do with bleeding after delivery?

Answers:

Bleeding after birth occurs because:

- The uterus remains soft and does not become firm after the delivery.
- The placenta remains inside more than ½ hour after the delivery.
- Pieces of the placenta remain inside.
- The woman tears inside or outside during the delivery.
- Sometimes the uterus does not become firm because labor injections were used. Because of the injections, the uterus does not have the energy to make itself firm after delivery.

PRACTICAL ACTIVITIES

See Module IV, page 27, Hemorrhage: "Bleeding after delivery."

1. Demonstration of uterine contraction--firm uterus--soft uterus.
2. Demonstration of placental retention.

■ ***Why is it important to know about bleeding after delivery?***

Questions:	Answers:
- Why do you believe it is important to know about bleeding after delivery?	- Bleeding after delivery is what kills the majority of women who die in childbirth. Half of those who die do so because of bleeding.
- From what you have seen and heard, why do women die in childbirth?	- Women can die in one, two, or three hours--very rapidly--and because of this you must know what to do.
- How long does it take for a woman to bleed to death?	

■ ***How can you recognize bleeding after delivery?***

Questions:	Answers:
- Have you ever seen a case of bleeding after delivery? If yes, what was the bleeding like, a lot or in drops? What happened to the woman?	- After the delivery the TBA should observe the woman's vagina to see if there is bleeding. If the woman is not examined, the bleeding will not be noticed.
- How much blood do you think is too much?	- The bright red bleeding should stop rapidly when the placenta delivers.
- How can you tell if a woman is bleeding too much?	- If bright red bleeding (not clots) continues for five minutes or more after the delivery of the placenta, be it a little or a lot, this is a sign that the woman is hemorrhaging.
- How long after the delivery of the placenta should the bright red bleeding stop?	

- How should the uterus feel after the delivery of the placenta?
- The uterus has not become firm. It continues to be soft, and because of this it continues bleeding.
- What is usually used to collect or absorb the blood? How many towels, sheets or whatever is used, are usually necessary?
- If there are big puddles of blood on the floor or if there are plenty of towels or sheets soaked with blood, this means that there is a hemorrhage.
- What do women feel when they are losing plenty of blood?
- Women begin to feel dizzy and/or nauseous. They may vomit, faint or lose consciousness.

PRACTICAL ACTIVITIES

See Module IV, page 27, Hemorrhage: "Bleeding after delivery."

Perform a demonstration about.

1. Firm uterus--soft uterus.
2. Rapid bleeding--slow bleeding.
3. Absorption of blood by sheets, cloth, etc.

A skit can be performed on how a woman feels and acts when she is losing a lot of blood and feels faint.

■ ***How does the placenta deliver?***

Questions:

- How does the placenta normally deliver?
- How long does it take?
- What problems have you seen?
- What should you do after the placenta has delivered?
- How can you tell if the uterus is very firm?
- What can you do when the uterus is soft?

Answers:

- The placenta should deliver within ½ hour of the delivery of the baby.
- After the delivery of the placenta, the uterus must be felt to see if it has become firm. It should be firmly massaged every 10-15 minutes for two or three hours after the delivery so that there will be little bleeding and so that any clots will deliver.

- What can you do to help a woman deliver the placenta when a lot of time has passed and it has not delivered by itself?

- If the placenta delays in delivering, you must act in the following manner: (1) massage the uterus so that it becomes firm, (2) have the woman urinate, (3) put the baby to the breast, (4) have the woman squat and push. After this, you can pull gently but continuously on the cord, moving your hand towards the pubis and then towards the rectum to guide the placenta out. While doing this, you must also gently press above the uterus. If the placenta does not deliver within ½ hour, send the woman to the hospital as rapidly as possible.
- If there is a lot of hemorrhage, you must not wait. You must urgently look for transportation and take the woman to the hospital. Massage the uterus constantly during the trip to the hospital.

PRACTICAL ACTIVITIES

See Module IV, page 27, Hemorrhage: "Bleeding after delivery."

Do a demonstration about:

1. Massaging of the uterus.
2. How to deliver the placenta.

In the demonstration on how to massage the uterus, one TBA can massage another so that she can feel how strongly one must massage. Remember, it is not just rubbing the belly.

■ ***What must the TBA do when there is bleeding?***

Questions:	Answers:
- Have you ever seen a woman with bleeding? What did you do, and what happened to the woman?	- If the placenta has delivered but the woman has a lot of bleeding, you must vigorously massage the uterus to make it firm and to remove any clots. You must have the woman urinate. Stimulate the nipples because this will help her uterus to contract.
- What can you do to stop bleeding after delivery?	
- How long do you wait before taking a bleeding woman to the hospital?	- Look for a car to take the woman immediately to the hospital in case the bleeding doesn't stop.
- How long does it take for a woman to die from bleeding?	- Remember that many woman have died as a result of this bleeding and that they can die in only one or two hours.
- What must be done with the woman on the way to the hospital?	- Give the woman plenty of fluids on the way to the hospital. This will help replace what she is losing. Do not stop massaging the uterus during the entire trip to the hospital.

PRACTICAL ACTIVITIES

A skit can be performed about:

1. Taking care of a woman with postpartum hemorrhage, convincing her and her family why she needs to go to the hospital. Perform all of the maneuvers in the required order.

■ ***What sould be done if a woman has a tear (laceration)?***

Questions:	Answers:
- How can you know if a woman tore and is bleeding from a laceration?	- A light should be used to examine the woman's genitals and to see where she has torn and if she is bleeding.
- What must be done for a woman with a laceration?	- If she is bleeding from a tear, you should press on the area with a cloth for ten minutes or until the bleeding stops.
	- You should then take the woman to the hospital for stitches to sew up the tear.

8. INFECTION AFTER THE DELIVERY

KEY POINTS

- ***What is infection after delivery?***

  When the uterus becomes infected after delivery.

- ***What is the danger?***

  If the infection is not noticed and treated rapidly, it can kill the woman.

- ***What must the TBA examine?***

  - She must feel the belly to see if the uterus is firm and if it is tender.
  - She must look to see if the woman's breasts are full and if they hurt.
  - She must examine the woman to see if she has vaginal bleeding and if the blood smells bad, is chocolate-colored, or if there is pus.

- ***What questions must the TBA ask?***

  Is there constant belly pain, a fever or chills?

- ***What must the TBA do?***

  - She needs to counsel the woman about the danger signs of infection after delivery.
  - She should visit each patient daily for two to three days after delivery and examine her to see if there is an infection.
  - If the woman has an infection, the TBA must refer her to the hospital and give her plenty of liquids on the way.
  - She should advise all her patients to breastfeed their babies.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What is infection after delivery?***

Questions:	Answers:
- What causes infection after delivery? - How do the germs enter? - When and how can a parturient mother become infected?	- Women can get an infection in the uterus after delivering their baby. The germs or the infection can enter during labor or after the delivery.

■ ***Why is it important to know about infection after delivery?***

Questions:	Answers:
- Why is it important to know about infections after delivery? - What can happen to a woman who has an infection after delivery? - Have you ever seen women with an infection after delivery? What signs did these women have and what happened to them?	- The infection can kill the woman if she does not receive treatment. Many women die from these infections.

■ ***How can you recognize infection after delivery?***

Questions:

- How can we tell if a woman has an infection in her uterus after delivery?
- What are normal afterbirth pains like?
- What is "milk fever"?
- What is vaginal discharge normally like after childbirth?
- What is the difference between a normal fever caused by milk production and a fever due to infection after delivery?
- What is it like when a woman's breast becomes infected?
- What is the vaginal discharge like when a woman has an infection after delivery?
- Why is it important to visit women several times after the delivery?
- What must be examined to find out if a woman has an infection?

Answers:

- After delivery, you must visit the woman in her home several times and examine her to see if she has any sign of infection. The signs of infection are:
  - Fever and/or chills.
  - Pain in the lower belly where the womb is.
  - Dark, foul smelling vaginal discharge.
  - Continued bleeding.
- Talk with the woman about the signs of infection and about how one can tell if there is an infection. A woman may not always have all of these signs. For example, she may have just a fever or just belly pain.
- The belly pain is not like afterbirth pains that come and go. It is a constant pain that does not go away.
- Sometimes women have a slight fever when the milk comes in; this happens on the second or third day after delivery. This is normal and the fever goes away afterwards.
- The TBA must talk to her clients about the danger signs of infection. That way, women can advise her when they think they may have an infection.

■ ***What can the TBA do when a woman has an infection after delivery?***

Questions:

- What must be done when a woman has an infection after delivery?
- What must you explain to the woman?
- Should the baby stop nursing when the mother has an infection after delivery?

Answers:

- If the woman has signs of infection, she must be sent to the hospital because she needs treatment with antibiotics. The woman and her family need to be counselled about the dangers of the infection.
- If she has a fever, give the woman plenty of liquids to drink.
- Even if there is an infection, the mother should continue breast feeding the baby. The milk will still be as good for the baby as always.

PRACTICAL ACTIVITIES

See Module IV, page 29, Sepsis: "Infection after delivery."

Here are some ideas for skits:

1. Practice making visits to different women who have just given birth: a woman who has an infection postpartum, a woman who has afterbirth pains, and a woman with "milk fever." Practice making referrals to the hospital.

Demonstration:

1. Drawing about postpartum infection.

COMPLICATIONS IN THE NEWBORN

9. BABIES WHO ARE BORN TIRED, OR HAVE ALMOST SUFFOCATED

KEY POINTS

- ***What is it?***

  Babies are born tired either because they suffer while being born, because of labor that lasts more than 12 hours, or because the baby comes feet or buttocks first.

- ***What is the danger?***

  Babies suffer inside the uterus if they don't get enough air during labor pains. They can suffocate and be born very tired or dead.

- ***What must the TBA examine?***

  She must examine the newborn immediately after birth to see if it cries, moves, breathes or grunts and moans when breathing. If the baby does not do these things and is blue, it is probably very tired or asphyxiated.

- ***What must the TBA do?***

  - Refer women with more than 12 hours of pains or with babies coming feet, buttocks, or shoulder/arm first to the hospital.
  - When a baby is born tired, rapidly clean the nose and mouth, dry the baby and rub his or her head and back. If the baby does not respond, give mouth-to-mouth resuscitation for 30 breaths and see how the baby responds. If the baby does not begin to breathe on its own, give 30 more breaths and examine the baby again. If the baby still does not breathe on its own, give another 30 breaths (for a total of 90). Here is how to give mouth-to-mouth resuscitation to a baby. Cover the baby's mouth and nose with your mouth. Blow just a little air into the baby's lungs, as they are small and can burst if a lot of air is blown in. Always separate your mouth from the baby's mouth between one breath and the next to allow the air in the lungs to come out. If the baby does not react after 90 breaths, it may be dead. To give good mouth-to-mouth resuscitation, put the baby on a flat, hard surface, such as a table or board.
  - **DO NOT** use oxytocin injections during labor.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What is a baby like who is born tired?***

Questions:

- How can you recognize when a baby is born tired?
- Why is it important for the baby to continue receiving oxygen while inside the mother's belly?
- How does the air get to the baby when it is still inside the mother's belly?
- What can happen to a person or to a baby when they don't get enough air?

Answers:

- It is a newborn who suffers inside the mother's belly when it is being born. The baby lacks air and the birth is difficult. The baby is born very tired, and because of this it can die.

PRACTICAL ACTIVITIES

Have the TBAs hold their breath for as long as they can. Time how long they can hold their breaths and have them describe how they feel.

■ ***Why is it important to know about babies who are born tired?***

Questions:

- Why is it important to know about babies who are born tired?
- Have you ever seen a baby who was born tired?
- What did you do with the baby, and what happened to it?

Answers:

- Because people do not know about this, many babies have died in their mothers' bellies or after being born. If they do not die, they can become mentally handicapped due to the lack of oxygen.

■ ***Why are babies sometimes born tired?***

Questions:

- In what cases are babies born tired, and why does this happen?
- What do labor pains have to do with this?
- What does the baby's position have to do with this?
- How does oxygen get to the baby inside the mother's belly?
- What do labor injections have to do with this problem?
- How can you keep babies from being born tired? What can the TBA do so that this doesn't happen?

Answers:

- When the labor pains can last for too long, more than 12 hours.
- When the baby comes feet or buttocks first and the head remains trapped inside. When the baby lies transverse.
- When labor injections are given to the woman, and she therefore has pains that are closer together, longer and stronger. These pains don't allow enough air to get to the baby.

PRACTICAL ACTIVITIES

See Module IV, pages 24-25, Prolonged labor: "When the pains last too long," The use of oxytocin: "Labor injections."

1. Duration of labor.
2. Oxytocin use.

See Module IV, page 21, Transverse lie: "Crosswise baby," Breech presentation: "Baby coming feet or buttocks first."

1. Demonstration of how a baby is born in the breech-transverse position.

■ ***How can you tell if a baby was born asphyxiated or tired?***

Questions:

- Have you ever seen a baby who was born tired?
- How did the baby look?
- What does a baby look like when it is born tired?
- How does a normal baby cry?
- How does a tired baby cry?
- How does a normal baby move? What does it move the most?
- How does an asphyxiated baby move?
- What color is a normal baby's skin?
- What color is an asphyxiated baby's skin?
- How does a normal baby breathe?
- How does an asphyxiated baby breathe?

Answers:

- Immediately after birth, the baby must be thoroughly examined. Find out if the baby breathes, cries, moves, and is pink.
- The following are signs of asphyxiation or tiredness:
  - The baby does not cry or cries weakly.
  - The baby does not breathe or breathes weakly or irregularly.
  - The baby is limp.
  - The baby is purple or very pale.

PRACTICAL ACTIVITIES

Here are some ideas for skits: Have the TBAs imitate the activity of a normal baby and then of a tired baby. Afterwards, discuss their characteristics.

■ ***What can a TBA do for a baby who is born tired?***

Questions:

- How can you prevent a baby from being born tired?
- What must you do immediately after the birth of the baby?
- Why must the nose be cleaned?
- Why must you rub the baby's body?
- Why must you give mouth-to-mouth resuscitation?
- How long do you give mouth-to-mouth resuscitation?

Answers:

- To prevent babies from being born asphyxiated, refer patients to the hospital who have labor that lasts too long, babies in an abnormal position and presentation, or when the cord comes out first. Never use labor injections.
- When the baby is born, the TBA should examine it right away to see:
  - how it cries
  - how it breathes
  - the color of the skin
  - if it moves enough normally
- Rapidly clean the baby's nose and mouth and rub its entire body with a clean cloth to dry and stimulate the baby.
- If the baby does not react to this, immediately give mouth-to-mouth resuscitation 30 times and wait briefly to see if the baby responds and breathes on its own. If it does not, give another 30 breaths and observe the baby. If it still does not breathe on its own, give a final 30 breaths. To give good mouth-to-mouth resuscitation, place the baby on a flat, hard surface, such as a table or board.
- If the baby does not respond after this, the baby is dead.

PRACTICAL ACTIVITIES

See Module IV, page 31, Asphyxia: "Baby born tired, almost dead."

Do a demonstration on: Resuscitation of a baby born tired.

10. INFECTION IN THE NEWBORN

KEY POINTS

- ***What is infection in the newborn?***

  The infection may start with the flu or a cold, an infection in the umbilicus, or from another source. It is more common in premature and small babies.

- ***What is the danger?***

  A newborn does not have the means to protect or defend itself from an infection. If treatment with antibiotics is not given rapidly, the newborn can die in 1 or 2 days.

- ***What must the TBA examine?***

  The danger signs of an infection are:

  - The baby becomes cold or hot.
  - The baby either cries a lot and is inconsolable or does not cry and is sad and listless.
  - The baby does not want to breastfeed and grunts or moans while breathing or has difficulty breathing.

- ***What must the TBA do?***

  - Cut the cord with something clean, such as a new razor blade or scissors that have been washed with soap and water and boiled. You can also burn the cord with a candle or a red-hot knife.
  - Talk with the mother about the danger signs and the urgency of an infection in a newborn so that she is prepared, especially if the baby is small.
  - Visit mothers and newborns frequently after birth.
  - If you find a newborn with any of the danger signs of infection, take it immediately to the hospital. Do not lose time. Wrap it well for the trip, and encourage the mother to keep breastfeeding during the trip.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What is infection in the newborn?***

Questions:

- Why do newborns get infections after birth?
- How do newborns get infected?
- Where can germs enter to infect the newborn?

Answers:

- Infection is when germs attack the newborn and cause an infection. An infection in a newborn is very serious and can kill it within one or two days if treatment with antibiotics is not given. The newborn does not yet have the good defenses of an older child or an adult.

■ ***Why is it important to know about infection in the newborn?***

Questions:

- Why is it important to know about infection in newborns?
- Why do so many newborns die from infections?
- Have you ever seen a newborn with an infection?
- What happened to the newborn?
- How did the newborn look like?
- What can happen to an infected newborn if it does not receive treatment and/or medicine?

Answers:

- Newborns with infection can die. The majority of people don't know the signs of infection in the newborn and thus do not send them to the hospital or health center/post for treatment. The majority of these newborns die of infection.
- But if you see that a newborn is infected and you give treatment rapidly, the baby can be cured and be healthy.

■ ***How can you know if a newborn has an infection?***

Questions:

- What is a normal newborn like and what does it do?
- What does an infected newborn look like? What signs does it have?
- Have you ever seen a newborn with an infection?
- What did you find; what did you see?
- Have you ever seen a newborn die? How did it appear before dying? What did it have?
- How often does a normal newborn breastfeed? How does it suck when nursing?
- How does a healthy newborn cry? When do you think or believe that it is crying too much? When do you think it is crying too little?
- How do you console a newborn who cries but is not sick? Is it easy to console and calm such a baby?
- What is a normal newborn like? How does it move and what does it do?
- How can you tell if a newborn has a fever or is very cold?
- How does a normal baby breathe? How does a sick baby breathe?

Answers:

- The most important danger signs are:
  - not wanting to breastfeed, breastfeeds less, or breastfeeds with less vigor
  - cries a lot, is inconsolable or does not cry
  - is sad, listless
  - is limp
  - baby's body feels hot or cold; also, the baby's mouth feels hot or cold when breastfeeding
  - has difficulty breathing or breathes very rapidly

PRACTICAL ACTIVITIES

The following skits are suggested:

1. Have the TBAs imitate the facial expressions, behavior, sucking and breathing of a normal newborn.
2. Have the TBAs imitate the facial expressions, behavior, sucking and breathing of an infected newborn.
3. Have the TBAs discuss what can be considered a normal cry in a newborn. Discuss how to teach a first-time mother what is considered excessive crying and what is too little crying. Have the same sort of discussion regarding breastfeeding, fever, breathing and general behavior.

See Module IV, page 33, Sepsis: "Infection in the baby."

1. Drawings of danger signs.

■ ***What can a TBA do to keep newborns from getting infected or dying of infection?***

Questions:

- How should you cut the cord?
- How do you know if a newborn is all right?
- What should you do if a newborn has any of the signs of infection?
- How should you explain the danger signs to the newborn's family?
  How do you explain what the newborn needs if it is infected?

Answers:

- The umbilical cord must be cut with something very clean, such as a new razor blade, scissors washed with soap and water and boiled, or a red-hot knife. It can be burned with a candle. This way the umbilicus will not become infected.
- You must teach the parents about the danger signs of infection in the newborn.
- Visit the newborn every day to see if it has any sign of infection.
- If the newborn has any sign of infection, send it to the hospital so that it can get treatment. You must not wait.
- You must take even more care with newborns that are small or premature.

PRACTICAL ACTIVITIES

Here are a few ideas for skits:

1. Teaching a first-time mother about the symptoms of infection that she must recognize.
2. Making a postpartum visit, and examining the mother and newborn.
3. Referring a sick newborn to the hospital.

11. PREMATURE BABIES

KEY POINTS

- ***What does premature mean?***

  When babies are born before nine months or when they weigh less than 5½ pounds, they are premature.

- ***What is the danger of being premature?***

  Because these babies are very small, they do not have normal defenses and are not as strong as they need to be. They have trouble maintaining their body temperature, and they can get sick very quickly and die.

- ***What must the TBA examine?***

  - She must ask the mother if the baby was born before nine months of pregnancy were over.
  - If she has a scale, she must weigh the baby to see if it weighs less than 5½ pounds.
  - Some of the signs are being very red and small, having difficulty breathing, and having difficulty breast feeding.

- ***What must the TBA do?***

  - Talk to the mother about the dangers of a small newborn.
  - Take the baby to the hospital, because it needs special care.
  - Do not bathe the baby.
  - Give the baby only breast milk. Breast feed frequently.
  - Keep the baby warm with hot-water bottles, or put the baby inside the mother's blouse. The mother must cover herself well and breast feed the baby frequently.
  - If the mother has the baby inside her blouse (skin-to-skin contact), she must sleep semi-sitting.
  - Do not allow sick people to see the baby.
  - Always refer a baby to the hospital when it does not breastfeed or it has difficulty breathing.
  - Visit the baby in the home very frequently to examine it and see that it does not get sick and that it is being well taken care of. Wash your hands well before touching the baby.

DISCUSSION GUIDE

Use the following questions to help the TBAs understand this topic well.

■ ***What is a "premature" newborn?***

Questions:	Answers:
- What does premature mean? - How long does a normal pregnancy last? - How big is a normal baby after nine months of pregnancy? - What is a healthy weight? - What is a "premature" baby like?	- "Premature" newborns include those that weigh less than 5½ pounds, and those born before completing nine months of pregnancy. - "Premature" babies are very small and weak. Their defenses and their bodies have not yet matured, and they have not grown enough to be able to live easily outside their mother's belly.

■ ***Why is it important to know about "premature" babies?***

Questions:	Answers:
- Why do you think it is important to know about "premature" babies? - What problems can a "premature" baby have? - Have you ever attended a "premature" baby? - If yes, what happened to the baby during labor? What happened after the delivery?	- "Premature" babies can die during labor. - After birth, their lungs can easily become infected because they are not mature. This can put their lives in danger. - As they do not have good defenses, they can become infected easily and can be too weak to breastfeed. - It is also difficult for them to keep warm, and they can become very cold.

■ ***How do you recognize a premature baby?***

Questions:

- Can you tell if a woman is in labor before it's time?
- How do you calculate the date when you can expect the birth?
- How does a premature baby look? What are the differences between a premature and a normal newborn?

Answers:

- When the TBA arrives to attend a birth, she must ask the patient how many months pregnant she is and whether she has reached nine months or not. She must calculate how many months along the pregnancy is. This is done to see if it is time or if the baby is going to be born early.
- A baby that is born prematurely is recognized by its low birth weight, weak cry, weak sucking and limp body.
- Some babies are born very small even at nine months. When they are born, they are very little.

PRACTICAL ACTIVITIES

If possible, take the TBAs to a prenatal clinic so that they can see and feel the uterine size of various pregnant women. They can also go and visit the pregnant women they know, calculate how many months along the pregnancies are, and see and feel the size of the uterus.

■ ***What can the TBA do to prepare for the birth of a "premature" baby?***

Questions:

- Why should you refer to the hospital the women who have labor pains before the nine months of pregnancy?
- Do women know that labor and delivery before time carries a high risk of death for their baby?
- How can you convince a woman with labor pains before time that she must go to the hospital?
- Do women know that the hospital has medicine and equipment to help premature babies breathe and fight infections, and to feed them while they grow enough to survive by themselves?

Answers:

- Help prevent premature babies by rapidly referring to the hospital those women who begin labor too early. It may be possible to stop the labor, allowing the pregnancy to reach nine months.
- If a birth before time cannot be prevented, send the woman to the hospital to give birth. There are personnel in the hospital trained to treat these cases.

■ ***What care must be given to a "premature" baby in the home?***

Questions:

- Are you familiar with caring for "premature" newborns?
- Are the people in the communities accustomed to giving special care to "premature" newborns?
- How can you attend a "premature" newborn at home?
- What should you give it to eat?
- How often should it be fed?
- How can you avoid infections?
- When can you bathe it?
- How can you keep it warm?

Answers:

- If there is a "premature" baby in the home because the family refuses to take it to the hospital:
- Teach the family how to care for it.
- Keep it warm (using gloves or mittens, cap and socks). Put three or four layers of clothes on it. Use hot-water bottles.
- Make sure the baby is in direct contact with the mother (skin to skin).
- Do not bathe the baby for at least a week.
- Keep sick people away from the baby.
- The TBA must wash her hands before touching the baby.
- The baby should breastfeed as often as he or she wants to. Do not give it anything else, only breast milk.

PRACTICAL ACTIVITIES

See Module IV, page 35, Low birthweight or premature baby: "How to care for a little baby."

1. Demonstration of an incubator.
2. Demonstration of a kangaroo mother.

The TBAs must practice how to care for "premature" babies and how to teach the mothers the kangaroo method using dolls.

BIBLIOGRAPHY

Andolesk, K. Obstetric Care. Standards of Prenatal, Intrapartum and Post Partum Management. Pennsylvania. Lea & Febiger. 1990.

Barger, M. et al. Protocols for Gynecologic and Obstetric Health Care. Philadelphia. W.B. Saunders Company. 1988.

Barron S. and Thompson, A.M. Obstetrical Epidemiology. New York. Academic Press Inc. 1983.

Baylor College of Medicine, Department of Pediatrics. Newborn Section. Guidelines in the Management of the Neonate. USA. 1976.

Benrubi, G. Obstetric Emergencies. Contemporary Issues in Emergency Medicine. New York. Churchill Livingston. 1990.

Blott, M. and Greenough, A. "Neonatal Outcome After Prolonged Rupture of the Membranes Starting in the Second Trimester." Arch Dis Child. 63:1146-50. 1988.

Brann, A .W. and Dykes, F. D. "The Effect of Intrauterine Asphyxia on the Full-Term Neonate." Clin Perinatol. 4 (1):145-159. 1987.

Cerezo, R. and Figueroa, R. Manual de Atención al Recién Nacido. Guatemala. Editorial Piedra Santa. 1981.

Chalmers, T. et. al. Effective Care in Pregnancy and Childbirth. New York. Oxford University Press. 1989.

Cloherty, J. "Asfixia Perinatal." En: Cloherty, J. y Stark, A: Manual de Cuidados Neonatales. Barcelona. Salvat Editores S.A. 362-368. 1987.

Colonna, F. et. al. "The Kangaroo-Mother Method: Evaluation of an alternative model for the care of low-birth weight newborns in developing countries." J Gynecol Obstet. 31:335-339. 1990.

Cox, S.M. and Gilstrap, L.C. "Post partum endometritis." Obstetrics and Gynecology Clinics of North America: 16(2):363-371. 1989.

Díaz Rosello, J. L.; Estol, P. y Martell, M. Guías para la Organización y Normatización Básica de la Asistencia Neonatal. Clap, OPS, Publicación Científica No. 1028. Washington, D.C.

Enkin, M. et al. A Guide to Effective Care in Pregnancy and Childbirth. New York. Oxford University Press. 1990.

Ferris, T. F.: "Toxemia and Hypertension." In: Burrow and Ferris. Medical Complications during Pregnancy. Philadelphia, W.B Saunders. 1-29. 1988.

Herbert, W. N. and Cefalo, R. C. "Management of Postpartum Hemorrhage." Clin Obstet Gynecol. Temas Actuales. 2:325--336. 1992.

Kramer, M.S. "Determinants of Low Birth Weight Methodological Assessment and Meta - Analysis." Bull WHO. 65(5):663-737. 1987.

Lodger, W. "Obstetric Factors Associated with Infections of the Fetus and Newborn Infant." In: Remington, J. and Klein, J.: Infectious Diseases of the Fetus and Newborn Infant. Philadelphia. W.B. Saunders Co. 1014-1035. 1983.

Lucas, W.E. "Postpartum Hemorrhage." Clin Obstet Gynecol. 23:637-646. 1980.

McGregor, J. A. and French, J. I. "Uso de Antibióticos en la Rotura Prematura de Membranas Pretérmino: Motivos y Resultados." Clin Obstet Ginecol. Temas Actuales. 2:325-336. 1992.

"Report of Working Group of the British Association of Perinatal Medicine and Neonatal Nurses Association in Categories of Babies Requiring Neonatal Care." Arch Dis Child. 67(7) 868-9. 1992.

Roberton, N. R. C. "Infección." En: Roberton, N. R. C.: Manual de Cuidados Intensivos Neonatales. Barcelona. Ediciones Medici, S.A. 126-149. 1984.

Roberton, N. R.C. "Reanimación y Cuidados Iniciales del Recién Nacido." En: Roberton, N. R. C.: Manual de Cuidados Intensivos Neonatales. Barcelona. Ediciones Medici, S.A. 32-50. 1984.

Roberton, N. R. C. "Trastornos de la Glucosa." En: Roberton, N. R. C.: Manual de Cuidados Intensivos Neonatales. Barcelona. Ediciones Medici, S.A. 150-158. 1984.

Rooney, C. et al. A Review of the Evidence on the Effectiveness of Antenatal Interventions in Developing Countries, with Regard to Maternal Health Outcomes. Maternal Health and Safe Motherhood Research Programme. Geneva. WHO. 1991.

Star, W. et al. Ambulatory Obstetrics: Protocols for Nurse Practitioners/Nurse Midwives. 2nd. Ed. San Francisco. The Regents. University of California. 1990.

Scopes, J. W. "Thermoregulation in the Newborn." In: Avery, Gordon B.: Neonatology, Pathophysiology and Management of the Newborn. 2nd. Ed. Chicago. J.B. Lippincott, Co. 171-180. 1981.

Taber, B. Manual of Gynecologic and Obstetric Emergencies. 2nd. ed. Philadelphia. W.B. Saunders Company. 1984.

Usher, R. H. "The Special Problems of the Premature Infant." In: Avery, Gordon B.: Neonatology, Pathophysiology and Management of the Newborn 2nd. Ed. Chicago. J.B. Lippincott, Co. 230-259. 1981.

Washington University. Department of Medicine. Manual of Medical Therapeutics. Campbell, J.W and Frisse, M. editors. 24th edition. Boston/Toronto. Little, Brown and Company. 1983.

WHO. The Prevention and Management of Post-Partum Hemorrhage. Report of a Technical Working Group. Geneva. WHO. 1989.

MODULE VI:

PLANNING AND FOLLOW-UP OF TRAINING COURSES FOR TRADITIONAL BIRTH ATTENDANTS

TABLE OF CONTENTS

INTRODUCTION

This module contains a series of guides that will facilitate your work in the planning, organization and follow-up of TBA training courses.

In the guides, you will find key points on organizing a training course or class and on planning the follow-up and supervision of TBAs. In addition, there are some forms for collecting information vital to the planning of follow-up activities.

Choose what is most applicable to the circumstances and needs of your work area. You do not need to use everything.

A. A GUIDE FOR PLANNING A TBA TRAINING COURSE

Careful planning ensures the success of a training course. Below you will find a list of details that you should remember when planning. Be sure to clearly designate the person responsible for each activity.

- **Scheduling**

  Be sure that both the teacher(s) and the participants are available on the designated dates. Be sure that classes do not coincide with town holidays, preparation days for major holidays, the harvest or migration times, or with health-service activities.

- **Financing**

  Provide funds for travel allowances, educational materials, coffee breaks, etc. If funds are not available, this must be explained very clearly to the participants. If funds are available, follow appropriate accounting procedures. The funds must be requested early enough to be able to have them for the activity. The necessary receipts or paperwork must also be ready to document and report the expenditures. Regarding transportation costs of the participants, determine how much money is required. Establish reimbursement procedures. Nominate someone to be in charge of the finances.

- **Invitations**

  Ensure that the information on the training course arrives early enough -- not one day before, the same day as the course, or after the course has begun. Choose the most reliable form of communication, be it telegrams, notes sent with people, telephone calls or appointments. Send reminders with the date and place of the event. Do not forget to specify the date, starting time, duration and site of the event, as well as the items each participant must bring to the course (notebook, carrying bag).

- **Selection of participants**

  Determine whether everyone speaks the same language or if a translator will be needed. If so, find a good translator and remember that the time needed for each class or topic will double.

  Try to form homogeneous groups in which everyone speaks the same language. Instead of having a translator, consider giving two separate courses. If some participants do not need a translator, they will get bored. It is also convenient to give separate classes for literate and illiterate people, and for the young and old because these qualities affect the learning. You need to use different techniques and materials according to the group you are working with.

- **Permission/authorization for the participants**

  If necessary, the attendance permission must be solicited from the respective authorities in time for the course.

- **Course facilities**

  A favorable atmosphere is important. Consider whether there is enough space, cleanliness, necessary furnishings/equipment (chairs, tables, blackboards, flipcharts) and whether there are appropriate sanitary facilities, water, light, and ventilation (not too warm or too cold).

- **Housing for teachers and participants**

  If necessary, make sure the location is appropriate and culturally acceptable. For example, find out if fire is needed to heat tortillas. Also try to make sure the housing is close to the course site. If this is not possible, make arrangements for transportation.

- **Food and snacks**

  Food should be served where the course takes place, in order to avoid losing a lot of time. In addition to lunch, mid-morning and mid-afternoon snacks should be served. Food should be served on time to avoid delays in the program.

- **Training materials and supplies**

  It helps to make a list of the materials needed, as well as the quantities and the date and place where they can be obtained. Prepare the materials ahead of time to avoid loss of time during the course.

- **Special invitations**

  If you are going to ha' ' vited guests for the inauguration or closing of the course or visiting teachers, you must notify them in time and confirm their attendance.

- **Graduation/closing**

  If you are going to give out diplomas or certificates of attendance, they must be ready ahead of time.

- **Participant registration**

  A list of the names and addresses of each participant should be made on the first day of the course. The list can then be passed around each day to monitor attendance. At the end of the course, the list should be distributed to all participants so that they can remain in contact with one another.

B. HOW TO PLAN AND PREPARE A CLASS

Some factors that you should consider in the planning and preparing of a class are:

- *What is the topic of the class?*
- *How much time is available?*
- *What teaching aids and visual materials will you need?*
- *When will you use the materials or educational techniques?*
- *Are the participants literate, illiterate, indigenous? What is their cultural background?*

Below is an example of how you can structure a class and what steps you can follow:

1. DYNAMIC ACTIVITY (2 or 3 minutes)

A fun activity to begin and to "break the ice."

2. REVIEW OF PREVIOUS LECTURE (Approximately 10 minutes)

Ask about the content of the last class to see how much information was retained. Let your students tell you what they remember. Take advantage of this time to reinforce weak areas.

3. INTRODUCTION OF THE NEW TOPIC (Approximately 15 minutes)

Turn the class over to the students and see what knowledge and experiences they have regarding the new topic. This can be done by asking them to share what they know (starting with the question: "What does.....mean?") to see how they define the topic. Afterwards, introduce the correct concept via a group dialogue until everyone agrees on a single, clear definition. It is extremely important to share what the TBAs already know.

4. GROUP DIALOGUE TO COVER KEY POINTS OF THE LESSON (Approximately 30 minutes)

Guide the dialogue to ensure that all the points are adequately covered. This can be done through questions such as: Why is it important? What are the dangers for the mother and the baby? How is the problem detected? What signs must be looked for? When does this problem occur? What steps should be taken and in what order? What immediate measures can be taken (first aid)? What are the criteria for referring the patient to the hospital? What knowledge is needed to: (a) prevent this condition; (b) ensure early detection; (c) convince the family to agree to referral to the hospital? Is there any special care that can be given to the patient during transport to the hospital? It is important to present the TBAs' tasks very clearly.

When necessary, the TBAs' experiences can be reinforced during the conversation with simple scientific explanations. To present the technical information, demonstrations, models, live examples and audiovisual aids can be used. Do not lecture. Allow time for the participants to process the new information, reflect on what has been said, ask as many questions as they wish and discuss among themselves. Review your notes to make sure you have covered all the important points and reserve time to emphasize them at the end.

5. QUESTIONS AND ANSWERS (Approximately 10 minutes)

Leave time for the participants to ask questions. Ask them to ask questions. The answers should preferably be given by someone in the group. If this is not possible, the educator should answer.

6. EVALUATION OF GROUP COMPREHENSION (Approximately 5-10 minutes)

Ask the TBAs about the newly taught material. Ask what the central ideas of the lesson are. See if they can summarize what has been learned. If they do not ask questions, you will not know which points were not understood.

7. DRAMATIZATION OR OTHER ACTIVITY TO REINFORCE THE LESSON CONTENT (Approximately 15 minutes)

These activities must be carefully planned to ensure that they relate to the objectives of the class, help the TBAs relate theory and practice, and help them generate solutions to problems that they frequently face. These activities can include dramatizations of cases that can occur in real life using the TBAs themselves. Puppets, board games, bingo, or card games can also be used. Always focus on the topic. Contests can also be used to develop specific skills. The educator must use her creativity so that everyone actively participates in some fun activity.

8. SUMMARY (Approximately 5-10 minutes)

Repeat the key points of the lesson. It is best to have the participants do this.

9. FEEDBACK (Approximately 5 minutes)

Congratulate the group, tell them that they are doing well and indicate how much they are learning. Ask for their reactions and ask them to evaluate the class. Was everything clear? What recommendations do they have for improving the teaching?

The time scheme can vary depending on the topic. We recommend that feedback be included in each teaching session, as it serves as a guide to remember the different activities you need to cover in a class in order to systematically develop a topic. This kind of structure is useful not only for TBA training, but also for any class.

C. HOW TO SELF-EVALUATE OR EVALUATE ANOTHER TEACHER'S LESSON

Evaluation and self-evaluation are necessary in order to improve your teaching abilities. This allows detection and strengthening of your weak points and the reinforcement and improvement of your strong points. What follows is a format for evaluating certain criteria of the effective development of a class. These criteria can be adapted to different needs.

HOW TO USE THE SELF-EVALUATION

Make a cross in the appropriate box (good, average, bad, not applicable) according to your criteria. The purpose of this auto-evaluation is to detect specific weak points in order to modify or reinforce them.

FORMAT FOR AUTO-EVALUATION OF A CLASS

		GOOD	AVERAGE	BAD	N/A	COMMENTS
1.	UTILIZATION OF TIME					
	-WERE ALL IMPORTANT POINTS COVERED IN THE ALLOTTED TIME?					
	-WAS THE SCHEDULE RESPECTED?					
2.	COMMUNICATION ABILITIES					
	-COULD ALL THE STUDENTS HEAR THE TEACHER?					
	-DID SHE SPEAK CLEARLY AND USE LANGUAGE THAT STUDENTS COULD UNDERSTAND?					
	-DID THE TEACHER LISTEN TO THE STUDENTS AND RESPOND TO THEM ADEQUATELY?					
	-IF AN INTERPRETER WAS USED, WAS AN EFFECTIVE TWO-WAY DIALOGUE ACHIEVED?					
	-WERE BRIEF, CONCISE MESSAGES FORMULATED FOR A SYSTEMATIC TRANSLATION IN A REASONABLE TIME PERIOD?					
3	TECHNICAL CONTENT					
	-HAD THE TEACHER MASTERED THE TOPIC PRESENTED?					
	-DID SHE EXPLAIN THE TECHNICAL CONTENT ADEQUATELY? DID THE STUDENTS UNDERSTAND WELL?					
	-WAS THE TOPIC DISCUSSED IN ENOUGH DETAIL TO COVER THE TBA's NEEDS?					
	-WAS THE INFORMATION LIMITED TO THOSE POINTS THE TBA's REALLY NEED TO LEARN?					
4.	FEEDBACK					
	-DID THE TEACHER GIVE POSITIVE FEEDBACK?					
	-WERE ERRORS CORRECTED WITHOUT NEGATIVE FEEDBACK?					
	-WERE THE STUDENTS LISTENED TO?					

		GOOD	AVERAGE	BAD	N/A	COMMENTS
5	TEACHING METHOD					
	-DID THE TEACHER ASK QUESTIONS WHICH STIMULATED THINKING?					
	-WERE GROUP DISCUSSION STIMULATED, AND WERE THE STUDENTS GUIDED TOWARDS ACTIVE LEARNING?					
	-WERE VARIOUS METHODS USED?					
	-WAS THE GROUP'S INTEREST MAINTAINED?					
	- WERE THE STUDENTS ASKED TO SOLVE PROBLEMS OR TO APPLY THEORY TO PRACTICAL SITUATIONS?					
	-DID THE TEACHER HELP THE PARTICIPANTS RELATE THE TRAINING TO REAL LIFE EXPERIENCES?					
6.	GROUP DYNAMICS					
	-DID THE TEACHER CREATE A SUPPORTIVE LEARNING ENVIRONMENT?					
	-DID EVERYONE FEEL FREE TO PARTICIPATE?					
	-WERE THE PARTICIPANTS INVITED TO SHARE THEIR EXPERIENCES?					
	-WAS THE ACTIVE PARTICIPATION OF ALL THE STUDENTS ENCOURAGED?					
7.	EDUCATIONAL MATERIAL					
	-WERE THE VISUAL AIDS, DEMONSTRATIONS, EXAMPLES AND OPPORTUNITIES TO PRACTICE EFFECTIVELY USED?					
	-COULD ALL THE STUDENTS SEE AND PARTICIPATE EQUALLY?					

		GOOD	AVERAGE	BAD	N/A	COMMENTS
8	EVALUATION OF STUDENT COMPREHENSION					
	-DID THE TEACHER EXPLORE THE STUDENT'S UNDERSTANDING OF THE TOPIC AT THE BEGINNING OF THE CLASS?					
	-WAS THE CLASS ADAPTED TO THE STUDENT'S LEVEL?					
	-WAS THE STUDENTS' COMPREHENSION EVALUATED AT THE END OF THE CLASS?					
9	QUESTIONS AND ANSWERS					
	-WERE THE STUDENTS GIVEN ENOUGH TIME TO ASK QUESTIONS?					
	-DID ALL QUESTIONS RECEIVE AN ADEQUATE RESPONSE?					
10	SUMMARY					
	-UPON FINISHING THE CLASS, DID THE TEACHER GIVE AN APPROPRIATE SUMMARY?					
	-DID THE TEACHER SUMMARIZE THE TBA'S TASKS?					

D. A GUIDE FOR TBA FOLLOW-UP/SUPERVISION

To be able to plan and schedule an efficient and effective TBA follow-up and supervision, you must first consider some basic and fundamental aspects, such as:

1. ***What is the objective of the follow-up/supervision?***

   In other words, what do you wish to achieve?

2. ***Who will be responsible for the activity?***

   Examples:

   Graduate nurse
   Auxiliary nurse
   Other

3. ***When or how often will there be follow-up?***

   Examples:

   Every month
   Every two weeks
   Irregularly

4. ***How much time will be made available for follow-up?***

   Examples:

   1 hour per month
   5 hours per month
   ½ day every week

   You must take into account other responsibilities that the personnel in charge of follow-up may have.

5. ***Where will the follow-up take place?***

Examples:

In the TBA's house with the individual TBA or a group of TBAs
At some point close to the houses of a group of TBAs
In the health-care service, in the municipal building or local church

Although individual visits to each TBA are ideal, in reality the supervision of groups of TBAs is more feasible. Do not forget that group dynamics are very important. Groups of 12 to 15 persons function best (see participative methodology in the module on adult education).

6. ***Who will make up the group?***

Examples:

Size of group
Literate - Illiterate
Young people - Older people
Language group
Homogeneity of the group

7. ***What resources can you count on?***

Examples:

Per diem expenses
Educational materials
Teachers
Transportation
Classroom

If you have information on each of the points above, you will be able to establish your objectives and decide how, when, with what and with whom you can schedule the follow-up and supervision of the midwives.

It is important to remember that there are many ideal resources that we don't have. There are things we do routinely without thinking about their effectiveness, and there are things that are very pretty but that have little impact and use a lot of resources. The challenge is how to achieve the greatest impact with available resources.

The follow-up or supervision of TBAs has various purposes:

- To collect information
- To evaluate
- To teach
- To improve the relationship between TBAs and the health-care services
- To support the TBAs

Various activities contribute to the realization of these goals:

- To collect information, the nurse can:
    - Review the birth registry to obtain information about pregnancies, births and neonates attended by TBAs in the community
    - Discuss complicated cases to obtain information on the referrals made by TBAs
    - Request feedback on the attention that referred patients received in health centers/posts or in the hospital (good treatment or bad treatment)
    - Talk with TBAs to obtain information about births or maternal or neonatal deaths in the community that were not registered
    - Ask what kind of technical training is needed in order to plan future training courses

- To evaluate, the nurse can:
    - Review birth registries
    - Discuss how complicated cases were managed
    - Attend patients and talk with them about their situations
    - Observe the TBAs' practical skills to reaffirm and/or correct as necessary

- To teach, the nurse can:
    - Examine pregnant women and/or delivered women and their babies together with the TBAs and discuss their progress subsequently
    - Reinforce previously taught technical material
    - Give the TBAs positive feedback on their work
    - Introduce new technical contents when appropriate
    - Answer questions

- To improve the relationship between TBAs and the health-care services, the nurse can:

    - Observe and inform herself more about the customs and traditions of the families and TBAs in the community
    - Observe and inform herself about the real problems that confront the TBAs in their work
    - Provide feedback on their referrals (treatments given, diagnosis, final results)
    - Inform the TBAs about planned activities in health-care services, for example, infant vaccination programs and changes in clinic hours.

- To give support to the TBAs, the nurse can:

    - Provide materials for the delivery packs
    - Provide the forms necessary for their work (referral sheets, birth registers)
    - Explain to families and local leaders the role of the trained TBA in the maternal-infant health-care system and the need for referrals
    - Help TBAs negotiate with local leaders to obtain rapid transport in case of emergencies
    - Provide positive feedback regarding their good work (appropriate and early referrals)
    - Help TBAs resolve problems that they encounter in their work.

While these goals and activities are varied and complicated, remember that the most important point is to maintain regular contact with the trained TBAs so that they feel motivated and so that their work can be monitored. Also keep in mind that it is impossible to do all of these activities at each meeting or visit.

AN EXAMPLE OF HOW TO CONDUCT A TBA FOLLOW-UP MEETING

1. **Conduct a fun activity to break the ice.**

2. **Ask the TBAs:**

   - *What kinds of cases have you attended since the last meeting?*
   - *What problems have you had?*
   - *How have you managed them?*
   - *How have you been treated in the health services?*
   - *What happened when you referred cases to the health service?*

Take advantage of the complicated cases presented by the TBAs to determine if the management was appropriate or not. Conduct a general review and clarify any doubts the TBAs still have.

If the TBAs have a lot of cases to relate, a few hours will be needed to review and discuss them all. If time is left at the end of this, another topic that was part of the training can be reviewed in order to reinforce the TBAs' knowledge.

Remember that the more times a topic is repeated, the more information the TBAs will retain. However, be careful not to repeat topics too often or in exactly the same way, as the TBAs will get bored. Be creative and flexible, always trying to get the maximum participation from each TBA. Remember that a good sense of humor and a smile are very important in working with people.

If there is time to conduct other activities, take advantage of the opportunity to find out about births and pregnant patients attended by the TBAs, maternal deaths and peri-neonatal deaths in the community. See the list of objectives for follow-up meetings.

E. TBA ATTENDANCE AND COMPREHENSION REGISTER

This form records the training sessions that each TBA has attended, as well as the
comprehension she has achieved. It also tells us if reinforcement is necessary.

This information is very important because it permits the individual evaluation of e
and takes very little time to complete.

REGISTRATION FORM FOR TBA ATTENDANCE AND COMPREHENSION

TBA's NAME	DATE	NAME OF CLASS	PRESENT YES/NO	COMPREHENSION				

COMPREHENSION CATEGORIES:

GOOD = SUFFICIENT LEARNING
REPETITION OF INFORMATION NOT NECESSARY

AVERAGE = UNSATISFACTORY LEARNING
REINFORCEMENT OF SOME KEY POINTS NECESSARY

BAD = DID NOT UNDERSTAND THE CLASS
MUST RECEIVE THE CLASS AGAIN

F. REGISTER OF BIRTHS, COMPLICATIONS AND DEATHS ATTENDED BY TBAs

This form registers births, complications and deaths attended by TBAs. Together with other births registered in the Civil Registry, it can furnish epidemiologic data on birth rates, death rates, and rates of complications. It also permits the evaluation of the success of cases managed in the community.

To complete this form, a considerable amount of time must be invested. You must decide whether the information is sufficiently important to warrant the time investment or if that time would be better spent doing other things with the TBAs.

TBA BIRTH REGISTER

NAME OF THE TBA_____

PLACE _____

DISTRICT: _____

DATE	MOTHER'S NAME	NORMAL BABY	ASPHYXIATED BABY	INFECTED BABY	DEAD BABY	HEALTHY MOTHER	SICK MOTHER	DEAD MOTHER	REFERRAL

G. REGISTER OF CASES REFERRED BY TBAs

This form can be used to register the referrals to health services in the district made by the TBAs. The register must be filled in by the person responsible for the TBA program and by each person who receives a referral.

This form should be attached to the wall where everyone can see it.

CASES REFERRED BY TBAs

DISTRICT: _____

NURSE: _____

PERIOD: _____

DATE	TBA'S NAME	PATIENT'S NAME	REASON FOR REFERRAL	PERSON TO WHOM REFERRED	RESULTS OF REFERRAL	OBSERVATIONS

H. TBA REFERRAL SHEET

This form includes pictures of the main obstetric and neonatal complications that TBAs must refer to the hospital or health center/post. The TBA simply has to put an "X" on or below the complication that her patient has.

On the other side of the paper is a space to describe the counter-referral. If the TBA cannot read, someone must read to her so that she knows what happened with her patient.

TBA REFERRAL CARD

Name: _____

Place: _____

Name of TBA: _____

Address: _____

Date: _____

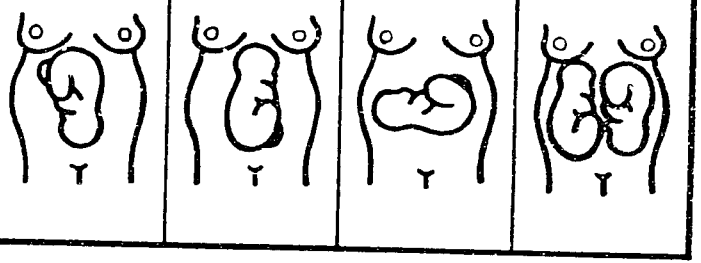
Please do not throw this form away!

Read this form carefully and place it in the patient's file.

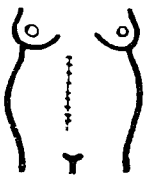
Please fill in the reply to the referral on the back of this form.

Thank you.

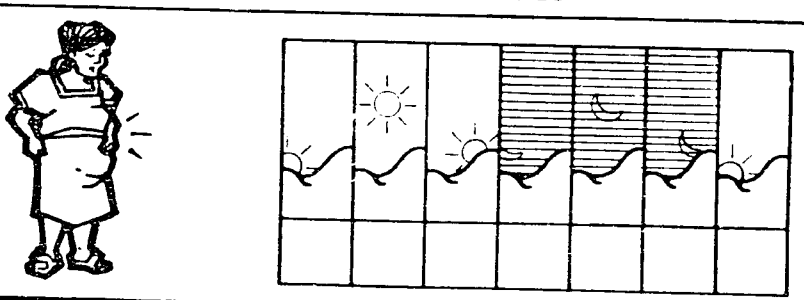
PRESENTATION OF BABY



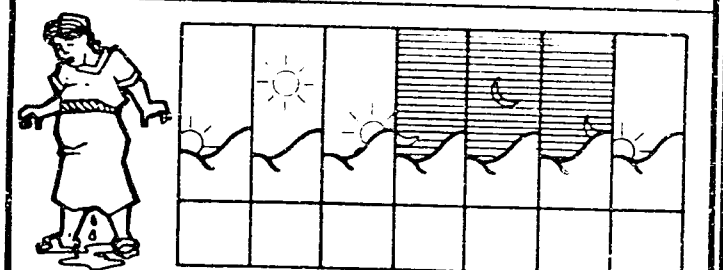
PREVIOUS CESARIAN



DURATION OF LABOR



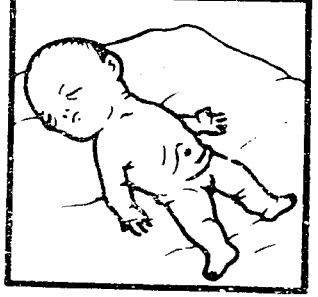
DURATION OF RUPTURED MEMBRANES



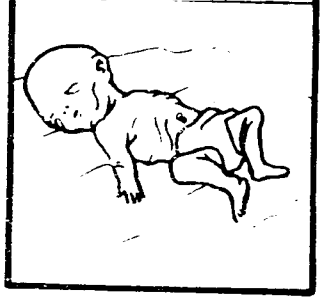
BLEEDING IN PREGNANCY

ASPHYXIATED NEWBORN

SEPTIC NEWBORN

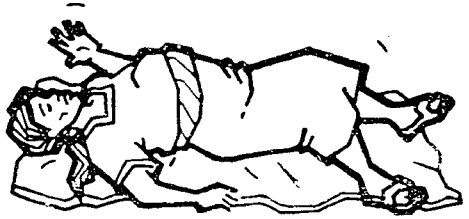


PREMATURE NEWBORN

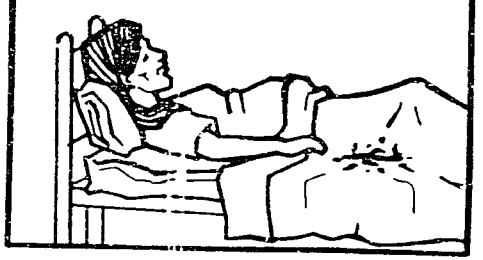


SWELLING

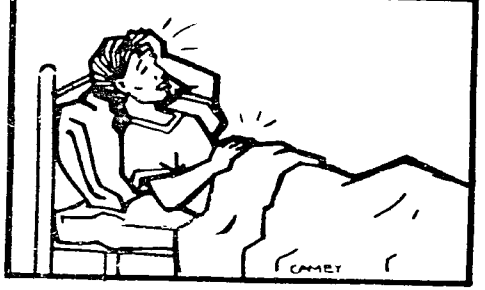
SEIZURES



BLEEDING AFTER DELIVERY



INFECTION AFTER DELIVERY



REPLY TO THE REFERRAL

Please clearly write the diagnosis of the patient and the care she needs. This will enable the TBA to follow up with this patient.

Thank you very much for filling out this form. You are helping to save lives.

What illness/problem did the patient have? _____

_____

_____

What care does she need? _____

_____

_____

Name and title of the person referring: _____

_____

_____

_____

Signature

BIBLIOGRAPHY

Banks, D. Training of Traditional Birth Attendants. Notes on Evaluation of Training Programme Supported by UNICEF. New York. UNICEF. 1984.

Edouard, L. et al. Traditional Birth Practices: An Annotated Bibliography. Geneva. WHO/MCHI. 1985.

Hong, S. Review of Training Programs for Traditional Birth Attendants in Selected Countries. New York. UNICEF. Program Evaluation Section. 1987.

Leedam, E. "Traditional Birth Attendants." Intern J Gynecol Obstet. 23:291-303. 1985.

Mangay-Maglacas, A. et al. The Traditional Birth Attendant in Seven Countries: Case Studies in Utilization and Training. Geneva. WHO, 1981.

Mangay-Maglacas, A. et al. The Potential of the Traditional Birth Attendant. Geneva. WHO. Offset Publication No. 95. 1986.

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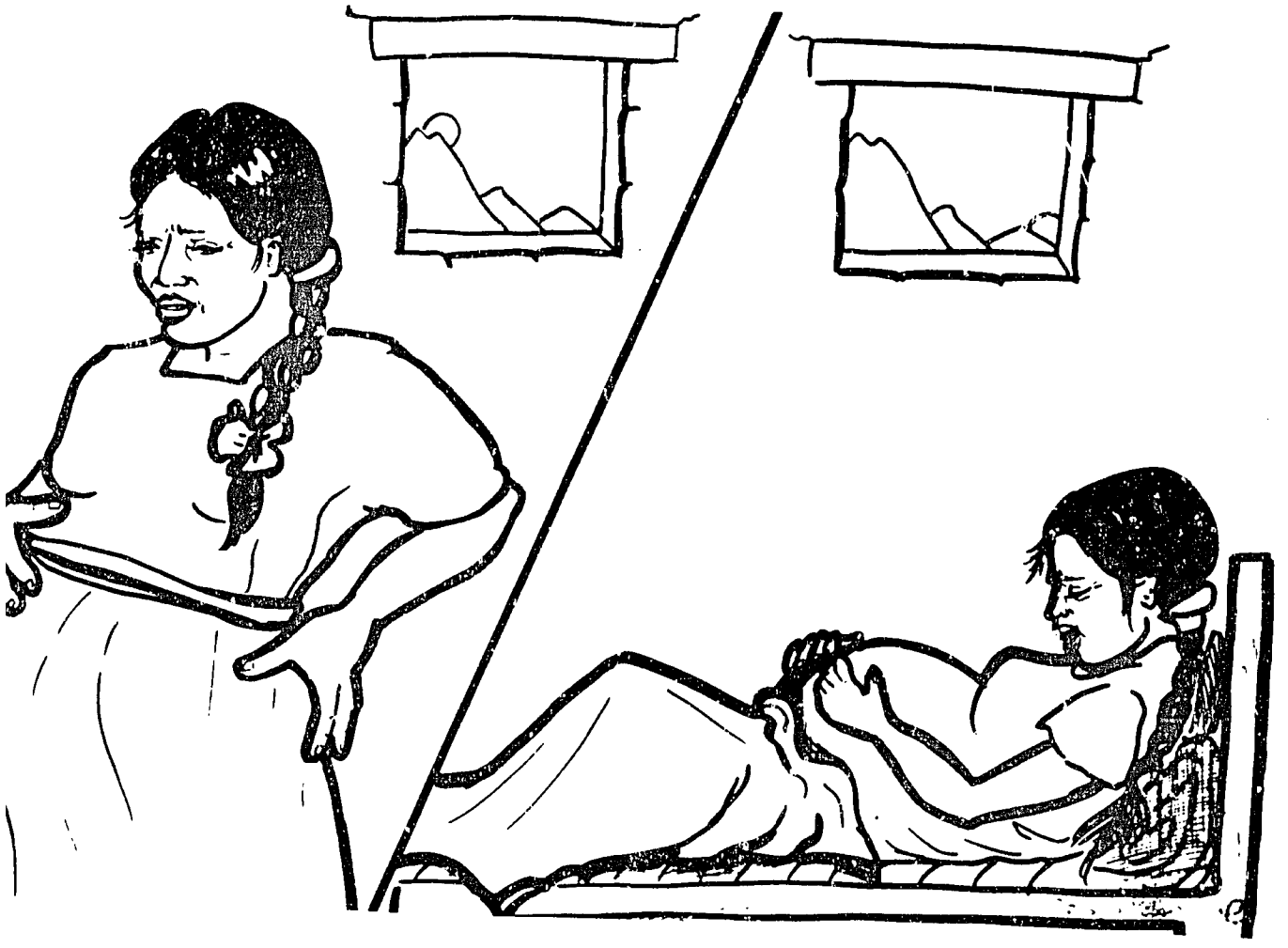
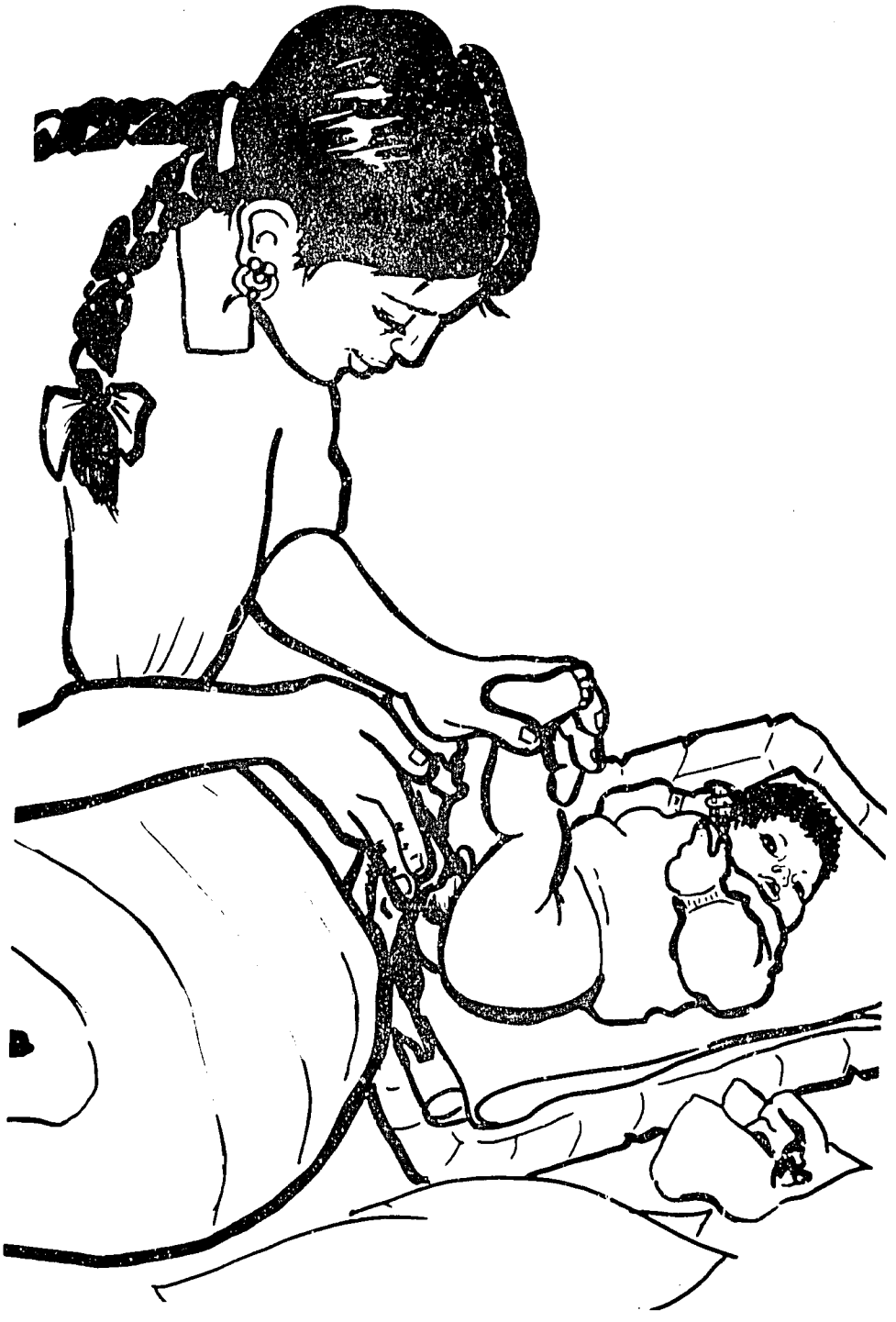
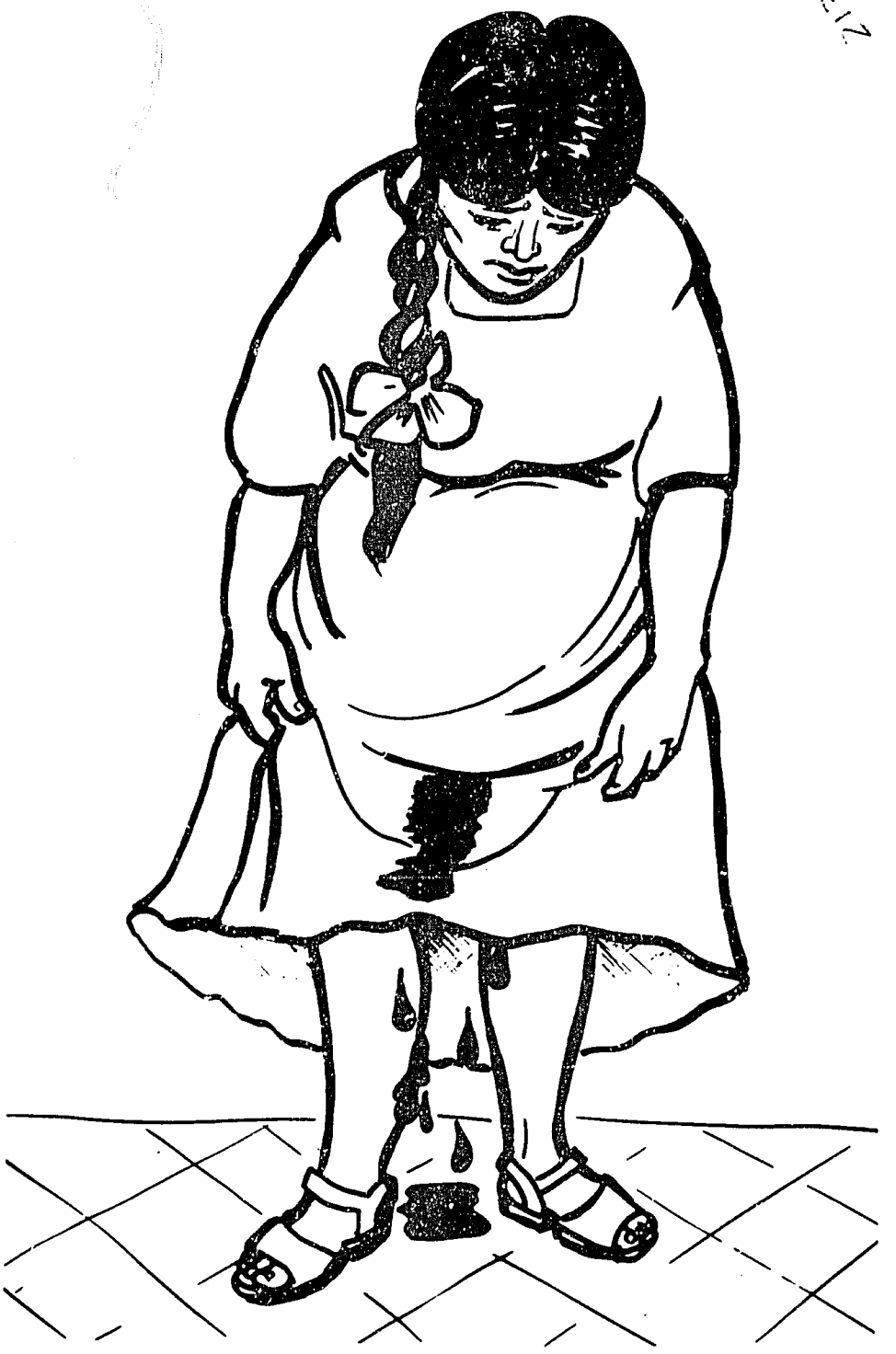






NEWBORN

Caring for the Healthy Newborn

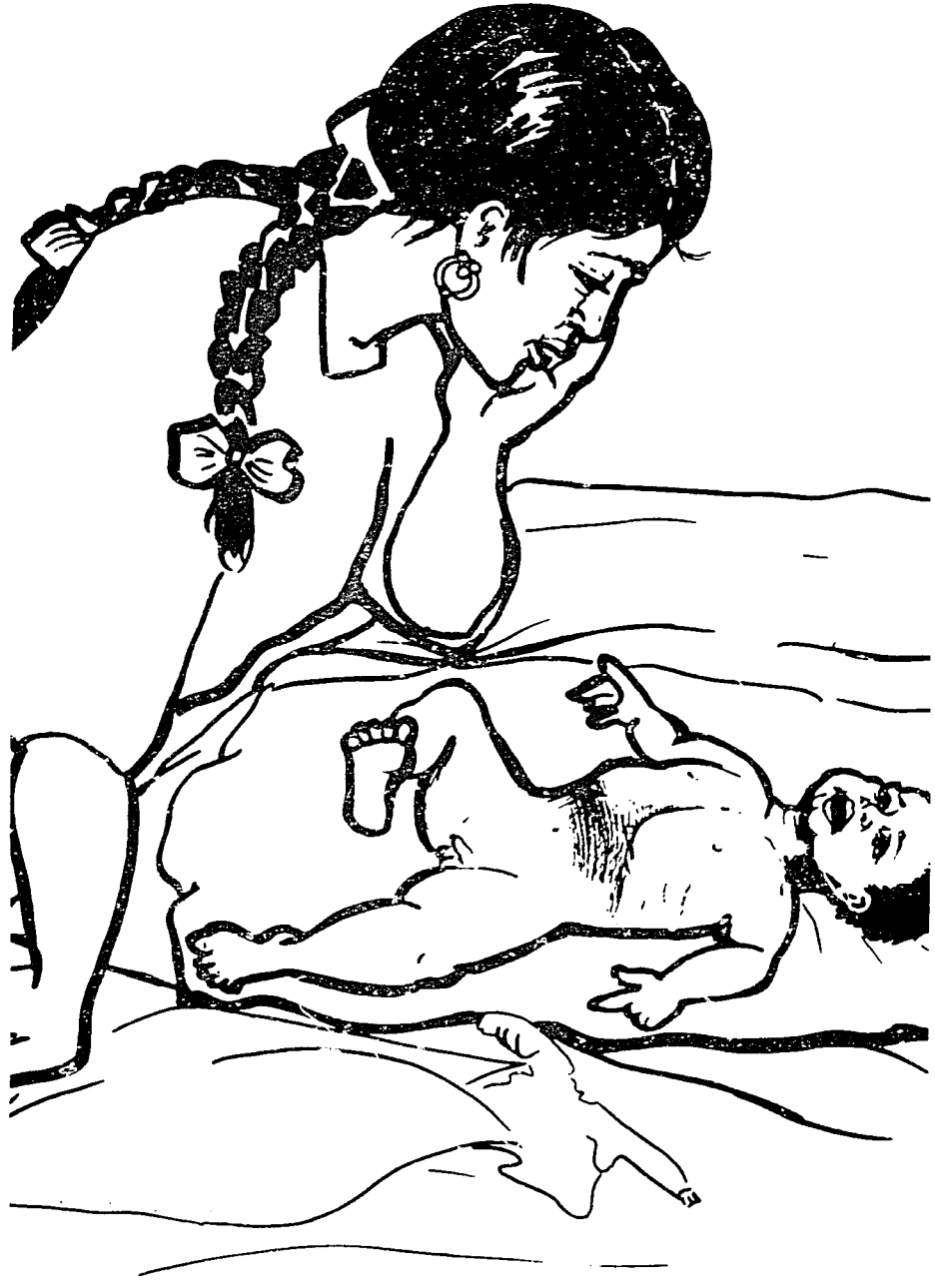
11. Breastfeeding
12. Burping
13. Taking the temperature
14. Hygiene
15. Health care

Symptoms of Infection in the Newborn

16. The crying baby (crying)
17. The baby who does not suck (sucking)
18. The sad baby (activity) and
    The feverish baby or cold baby (fever or hypothermia)
19. The baby who has trouble breathing (respiratory difficulty)

Caring for the Very Small Baby (prematurity, low birthweight)

20. Keeping the baby warm (thermal control)



This pictorial manual contains pictures of obstetrical and neonatal emergencies and care of the healthy newborn. The purpose of the manual is to assist the illiterate traditional birth attendants who have been trained in managing obstetrical and neonatal emergencies.

The pictures cover the following topics:

PREGNANCY

1. Prenatal care
2. Swelling (pre-eclampsia)
3. Bleeding during pregnancy (hemorrhage)
4. Breaking of the water bag (premature rupture of membranes)
5. Cephalic presentation
6. Transverse lie

DELIVERY

7. How long do the pains last? (duration of labor)
8. Injections for delivery (inappropriate use of oxytocin)

POSTPARTUM

9. Bleeding after delivery (postpartum hemorrhage)
10. Infection following delivery (puerperal sepsis)

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OBSTETRIC AND NEONATAL EMERGENCIES

A Pictorial Manual for Traditional Birth Attendants

Quetzaltenango Health Area

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