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# MATERNAL AND CHILD HEALTH OFFICER (MCHO) TRAINING MANUAL (ENGLISH)

# MATERNAL AND CHILD HEALTH OFFICER
# ( M.C.H.O.)

## TRAINING PROGRAM

**INTRODUCTION:**

Afghanistan is among one of countries with the highest morbidity and mortality rate for children and mothers, which together comprise more than 50% of the population.

During the past 14 years, development of health services for women and children has been neglected. Outside urban areas there are only a few MCH clinics, where female health workers are available. Due to the shortage of trained female health workers, the only female health worker in the most districts are untrained traditional birth attendance or dai.

Most health centers/clinics in rural areas provide care with little or no emphasis on health education and prevention. They are mostly providing emergency care and curative.

An MCHO is a literate woman who is given knowledge and skill to deal specifically with the health problems of women and children in the house hold and district health center as well as to work in close relationship with the other members of the local health team.

Careful trainee selection, high training standard, provision of sufficient medical supplies, regular supervision, community support and close working relationship with the other members of health team will enable the MCHO to carry out her duties and responsibilities efficient and effectively.

A Maternal and Child Health Officer will be able to provide the following services in the community:

Prenatal, natal and post natal care, health education for mothers and children, managing emergencies during pregnancy, conducting normal home deliveries, identifying and referring high risk pregnancies, newborn and child care, traditional birth attendants (TBAs) training, and promotion of comprehensive MCH services in the community.

The Institute of Public Health (IPH) in close technical and financial cooperation with Management Sciences for Health (MSH) Training Department, developed the Maternal and Child Health Officers Training program in early 1990. The purpose for this training is to improve the health status of mothers and children, particularly in rural areas in a manner which respect the Afghan culture and tradition. The one year MCHO training program is divided into two phases:

Phase I - A 12 weeks Basic Health Worker ( BHW ) training.
Phase II - The 40 weeks specific MCHO (Midlevel) training.

Successful trainees are certified as female BHWs after completion of the first phase. Those trainees who have demonstrated a capability and ability for more advance training may be enrolled in the second phase of MCHO training program.

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**ABOUT THE MCHO MANUAL:**

This manual has been written to be taught in the second phase of MCHO training program and includes 14 chapters as follows:

Chapter I: Community Health and Health Communication.
Chapter II: Normal Pregnancy.
Chapter III: Abnormal Pregnancy.
Chapter IV: Antenatal Care.
Chapter V: Normal Labor and Delivery.
Chapter VI: Abnormal Labor and Delivery.
Chapter VII: Normal Post Partum
Chapter VIII: Abnormal Post Partum
Chapter IX: Care of (0 - 5) years old Children & Management of Common Problems.
Chapter X: Vaccination.
Chapter XI: Common clinical Problems.
Chapter XII: Islam And Family Planning.
Chapter XIII: Training and Supervision of TBA.
Chapter XIV: Management of Health Facility.

Mrs. Mahmooda Nasrin a Pakistani lady consultant assisted the IPH with designing and developing the MCHO manual.

The MCHO curriculum is based on World Health Organization (WHO) guidelines for midlevel health workers training and adapted for managing the health problems of mother and children in Afghanistan.

The manual was standardized by a group of professionals from WHO, International Mercy Corps (IMC), Mercy Corps International ( MCI), Swedish Committee for Afghanistan ( SCA ), Institute of Public Health (IPH) and Management Sciences for Health (MSH).

External examiners from the above mentioned organization participated in the final examinations of the first session of MCHO training. Part of this activities was to determine whether the MCHO curriculum is appropriate for meeting the needs of MCH services in rural Afghanistan.

The BHWs manual is also developed and printed by IPH. For further information and detail please see the BHWs text and practical manuals.

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**ACKNOWLEDGMENT:**

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Along with IPH trainers the team of professional from the above mentioned organizations assisted in revision and evaluation of the manuals. We are extremely grateful for their evaluation, suggestions and recommendations which were valuable source of assistance in the completion of this manual.

In addition to the above we would to thank Mrs. Mohmooda Nasrin who helped IPH in designing and developing of this manual and contributed in orientation of the MCHO trainer on how to develop a training manual.

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Regards,

Dr.Mohammad Tahir Akbary
Deputy Director General IPH
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# Chapter I

# COMMUNITY HEALTH AND COMMUNICATION

# MCHO Job Description

a. Job:

Mother and Child Health Officer.

b. Duties:

- Antenatal care, natal care, post natal care.
- 0-5 child health care.
- Training of TBA.
- Family planning services.
- Management of MCH Health Post.

c. Other responsibility:

- Community health and its relations with community.
- Normal pregnancy.
- Abnormal pregnancy.
- Antenatal care.
- Normal delivery.
- Abnormal delivery.
- Normal Postnatal.
- Abnormal Postnatal.
- 0-5 child health care.
- Vaccination.
- Common clinical problems.
- Family planning.
- Training of TBAs.
- Management.

d. Qualifications

- MCHO should at least be graduated from 10th class.
- Language understanding should have ability of speaking and writing in Dari and Pushtu.
- Reporting to:
  Provincial health director.
  Organ
  Supervision area.
  BHW, VHS, TBAs

Instruction manual
MOPH Master Plan.
MCHO should be inhabitant of the same district and should be completely familiar with custom and culture of the area.

## 3. MCHO's desired behavior

- Be cheerful and enthusiastic, neat and clean in your appearance.
- Be dutiful and loyal to the department/organization employing you and perform your duties accordingly.
- Know your job responsibilities and limitations Certain limitations will be evident in specific tasks or activities relating to each category of service. Offer only those services to the community for which you are trained.
- Establish and maintain a good relationship with other members of your team and cooperate with them for clinic and community based activities.
- Follow the rules and regulations of the health facility in which you are posted.
- Have respect for the rights and dignity of all people. Serve them without regard for sex, age, or social status in the community.
- Respect community people's customs and beliefs, and be polite and sympathetic.
- Practice what you teach about health. Be a good example for the community.
- Help people within your limits and show interest and concern for their general welfare of the people in the community.
- Be fair and honest, since you are a government employee and are paid by the government for your services. Acceptance of any type of payment from the people is not only a breach of discipline, but will also lower your status in the community.
- Listen and remain open to community reactions and responses to health programmes. Do not feel offended when they refuse to accept a new service or have many questions.

## 2. The new concept of health

### Definition

Health has historically been viewed or defined in a variety of ways over the years:

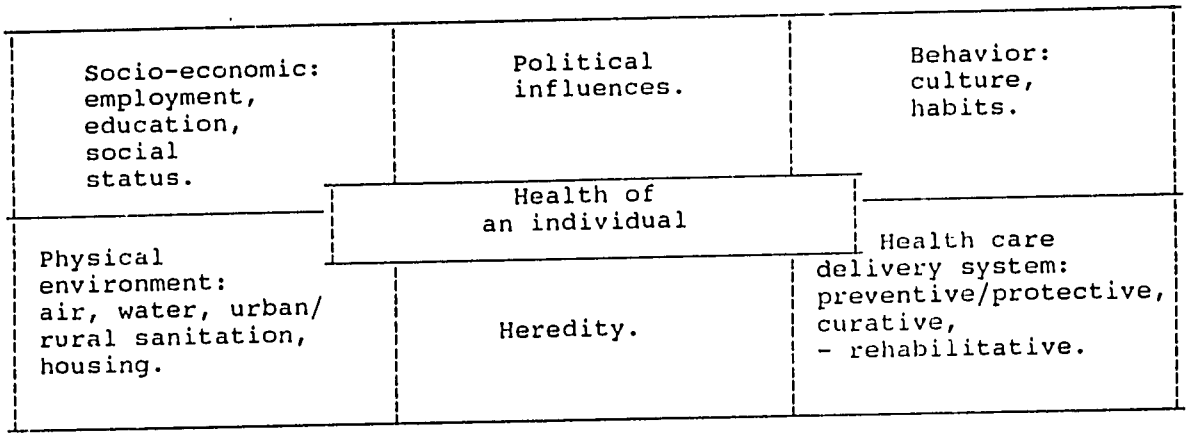
- In earlier days, and still today, health was viewed as an absence of illness.
- The World Health Organization (WHO) defines health as a "State of complete physical, mental and social well-being and not merely the absence of disease."
- A recent more popular definition of health among community health workers is called "OLOF" or Optimum Level of Functioning.

If WHO's definition is combined with Optimum Level of Functioning, then the revised definition of health would read:

> Health is a state of physical, mental and social well-being and ability to function, not merely the absence of illness and infirmity.

This change in the way health has been viewed over the years shows that as we gain more knowledge, our concept of health also changes. For example, during the eighteenth and nineteenth centuries, when great advances were made in discovering specific organisms as the cause of specific diseases, the absence of physical illness meant good health. As treatments for various bacterial diseases were discovered and applied, doctors realized that these treatments still left many unwell because there are several other factors which influence an individual's health which cannot be ignored.

**Factors Influencing Individual's Health**




This figure shows that an individual's health is influenced by many factors In the past, we in the health services had only concentrated on the influence on health of heredity, physical environment and the delivery of health care services. The other areas, socio-economic , political and cultural were more or less ignored. However, it is now necessary to see how all factors influence our well-being/health. In order to understand how our environment influences our health, let us discuss each of the factors separately.

*Socio-economic influences:* A person's status in the society means a special respected place in the group (society) which entitles him to certain privileges. Those privileges, along with income and education, affect an individual's health. A certain basic minimum of income and knowledge is required to meet the basic needs of an individual. Existing resources (income and education) need to be utilized to the maximum.

*Physical environmental influences:* Afghanistan still does not have safe drinking water or adequate sanitation. Pollution from humans and animals affect water and sanitation. Dust, dirt, and other fumes pollute the air and affect respiration. Increases in traffic accidents and war have resulted in more injuries and disabilities.

*Health care delivery system influences:* Traditionally, the health care system has been disease oriented. However, with the emphasis on health promotion and illness prevention, it is now more health oriented.

*Hereditary influences:* We cannot charge what we are born with. But the knowledge gained from research had provided information on ways to reduce the likelihood of certain congenital abnormalities in offspring.

*Cultural influences:* Culture and behavior shape our life style. What we eat, how we raise children, and what we do to take care of ourselves are influenced by culture and habit. For example, the high protein content in a diet, breast-feeding of babies and the closeness in families are all health promotive behaviors. However, putting cow dung on open wounds, drinking unboiled canal water or maintaining an inferior social attitude for females may negatively affect health status.

*Political influences:* Usually, health facilities are concentrated in the urban areas. However, the Afghan Government has established and staffed MCHO, BHWs, and RHOs. This will make it possible for people to seek health services for early diagnosis and treatment.

## 3. Primary health care

### Definition

Primary Health Care is the provision of necessary health services to everyone in the country. The services are not limited to cities only. They are available and accessible to all. Primary Health Care, therefore is the first entry point into the national health system. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work. It is also a part of overall social and economic development and requires full participation of the community as well as coordination from other governmental sectors.

### Principles

Primary Health care is a part of total human development, social, educational, and economic.

The principle of Primary Health Care is to provide essential health and related services to people where they live.

It should be available and accessible to all people.

It should be acceptable to the community.

It should be appropriate - this is relevant to the main health problems of and area.

**Strategies**

Below are listed some of the ways and means used in implanting PHC and achieving the goal of health for all.

- Intersectoral cooperation. PHC programmes should be set in a context of integrated development-housing, transport, agriculture, communications, education and others.

- The prevention of diseases and the promotion of health are essential activities in PHC.

- Basic infrastructure. Some basic health facility should be established within reach of every family. This distance will depend on terroin, roads an available transport. The acceptable average walking distance is usually taken to be 5 kilometers.

- Referral system. The health facilities need to be connected through a referral mechanism to the hospital services.

- Auxiliary health workers need to be trained to work in the health facilities.

- Village health workers need to be trained to work in the community.

- Traditional medical system. Research is needed into the effectiveness of some traditional remedies. Training of TBAs is proved successful. Cooperation with and training of other traditional medical workers should be encouraged.

- Health education is fundamental to PHC. Only through understanding the basis of a healthy life, people can make rational decisions concerning their needs and life style.

- Community participation. Each community should be involved in the PHC service through the functioning of an active Responsible Health Committee.

  Health care should be relevant to the main health problems of each community.

- Essential drugs for treating common diseases should be provided.

- Cost effective and self-reliant. As a country and community develop, the provision of health care should grow. The level of health care should reflect the total development and be within the means of the community.

*The Eight Elements of Primary Health Care*

| | | |
|---|---|---|
| CONTROL OF ENDEMIC DISEASES | NITRITION | MATERNAL AND CHILD HEALTH, AND FAMILY PLANNING |
| TREATMENT OF COMMON DISEASES | HEALTH EDUCATION | WATER AND SANITITION |
| PROVISION OF ESSENTIAL DRUGS | IMMUNIZATION | |

The essential elements of PHC according to the Alma Ata declaration include:

1. Education concerning prevailing health problems and methods of preventing and controlling them.

2. Promotion of food supply, and proper nutrition.

3. An adequate supply of safe water and basic sanitation.

4. Maternal and child health care, including family planning.

5. Immunization against the major infectious diseases.

6. Prevention and control of locally endemic diseases.

7. Appropriate treatment of common diseases and injuries.

8. Provision of essential drugs.

## 4. The community

As Mother and Child Health Officer you need to work in the MCH post and initiate outreach activities. Outreach activities means reaching out into the community to obtain support and participation in making health services more available to the individual's families in the community which is the primary aim of Primary Health Care and services.

### Definition

A community is made up of individuals and groups of people living together in one area. In order to be a good MCHO you need to know and understand about the community in which you are going to start work. Every community has rules and regulations for behavior, in rural Afghanistan. They don't have written rules but they know and apply. You need to know and understand them before starting work in the community.

### Types of Community Leaders and Respected People

In any community four types of influential persons can be identified. They are:

formal, informal, opinion, other respected people.

- **Formal Leaders**

They are the official leaders, who are employed by the government, like the Union Council Chairman, school teachers, policemen and army officers. The leadership role of these people goes with the post and can be temporary, because the individual leader may be transferred.

- **Informal Leaders**

The second type of leaders are the informal ones. These are the natural leaders. They were born with leadership characteristics. The natural leaders may be from either the upper, middle, or lower economic class. They possess a great many leadership qualities so that the community accepts their opinions and decisions. They have proven themselves to be leaders by having an influence on the village. These leaders could be dais, traditional healers, bone setters etc.

- **Opinion Leaders**

In the third category are opinion leaders. These individuals are respected by the community and their opinions are taken seriously. These individuals may also come from the first two categories. What is special about these leaders is that the community regards their opinion very highly and seeks their input in making decisions about individuals, families, or the community. In other words, these leaders are very influential in getting others to adopt or reject new ideas, activities or programmes. Examples of opinion leaders are Mullahs, Pirs, Sayeds etc. These opinion leaders should be identified in the community. They should be informed of the services of the MCHO post and the role of MCHO in the outreach activities.

- **Other Respected People in the Community**

You will usually learn about people in a community who are well respected and who because of this respect have influence over others. They are not necessarily the formal leaders in the community. They may be people who have knowledge and skills. Or, they may simply be people whose experience gives them a position of respect in the community. For example a woman who has many grand children may be a source of information and help for young mothers in the community. Or, a man who has good mechanical skills may be the person to see for advice on how to build something. Working with these respected people can make your community health work easier. They know the community's needs because they talk with community members so often. They also can introduce you to people in the community and give you the needed support to your work, they can influence people to take part in the community

health activities. They can help increase both your information sources and the resources to carry out your activities.

It is also important to be aware of formal and informal gatherings and celebrations in the community and to determine if some of the health activities could be facilitated through them.

### Why MCHO Needs to Meet Community Leaders

These types of community leaders need to be identified and a request should be made to each leader to participate as much as possible in planning, implementing, and evaluating all health programmes. Their participation will facilitate your activities and will help encourage community participation, increasing the chances of success of the health programme.

### How to make first contact

During training, teaching staff from MCHO training center and Public Health Institute will be making first contact for you prior to start working in the community but after graduation when you will be posted in Afghanistan, RHO will make contact with community members and leaders.

### Guidelines For Working With the Community

- Developing a conscious awareness of the traditional health program and beliefs observed by the community;
- Developing health education approaches which build on existing traditional health care practices and beliefs;
- Developing a conscious awareness of the traditional health practices and beliefs observed by the community.

As MCHO you need to realize that through the centuries people have developed a set of traditional health beliefs and practices that are firmly established and difficult to modify or change. Some of these traditional health practices, however, are beneficial while others are harmful. Our goal should be to identify these practices, encourage the beneficial and discourage modify the harmful in a way that can be understood and accepted.

WHO has recommended categorizing these practices into the following:

* Good practices.
  Physiologically sound and culturally desirable. These should be strongly encouraged in the curriculum. For example washing hands before eating.

* Bad practices.
  Hazardous to the health of the mother and infant and for which culturally acceptable alternatives should be found. For example avoid to give same food (meat, fat) to the baby who has measles.

* Neither good nor bad practices.
  Those with neither harmful nor beneficial effects but which may be culturally important. The dais should be allowed to practice these if they wish. For example wearing red clothes when a child has measles.

* Don't know.
  Undetermined practices for which there is not yet evidence for or against.

Using these 4 labels to classify each health practice will help you to work out which of the main messages should be given priority. Remember, your teaching should concentrate on discouraging the bad practices and encouraging the good ones.

Encourage active discussions with the TBA and mothers about traditional health practices. By using leading questions, such as

- Do mothers recognize malnutrition?
- What is the local term for malnutrition?
- What do mothers think are the courses of malnutrition?
- What is done locally to treat malnutrition?

Most will be able to describe the common traditional health beliefs and practices followed in their community.

Your role is to help them develop a conscious awareness of the beneficial or harmful aspects of the practice and work with them on developing approaches which build on the existing practices is a culturally acceptable way.

- Developing Health Education Approaches which build on Existing Health Practices and Beliefs.

When working to encourage people to adopt new or modified health practices an important principle to be observed is that the education process should be started with building on the present level of health knowledge and existing health practices.

This is important because when people have difficulty or cannot understand the reason for the advice being given and if the advice is in direct conflict with present practices, there is usually little chance for encouraging people to adopt new practices.

**Get to know the community**

When you start your job as a MCHO you may be working in an unfamiliar community. The community will have its own system for people to live and work together. It will have its own beliefs an practices But most important it will have certain unique needs. Getting to know the community means understanding the community's own needs. It also means:

- Finding out which needs people feel are most important.
- Whether they are willing to do anything to take care of their needs.
- Whether resources are available to meet the needs.

Getting to know the community means looking at the whole community picture and determining where you fit into that picture to help the most.

Getting to know the community is much like getting to know a patient and his needs. First, you observe and listen, to establish confidence. Then you explain what you know and offer your advice. Finally you work together to identify problems and to find the best ways to deal with these problems. Your success in carrying out these steps depends on your approach. The most successful approach emphasizes getting to know people and discovering how they feel about their community. Taking the time to get to know people shows that you care. People will trust you and be willing to work with you.

When you enter the community, you should take time to know location, size & resources of the community and to observe the people. Listen to them and try to understand their feelings. Remember that others have information that is as important as your own. People in the community have learned from their experiences as you have learned from yours. The beliefs and practices of community members make people healthy in many ways. Your training, experience, and beliefs will also make people healthy. By working together you can help the community the most. Your first step in approaching the community will be to talk to community leaders.

**How to gather information about community**

There are several ways you can gather information about community:

- Your own observation while walking through community using all your senses.
- Review MCHO post/hospital records.
- Talking to community members and people in groups.

Your own observations shall give you general overview of community.

Sight

- What do you see as you walk through the community?
- What style and size of housing are there in the community?
- Are the houses in good repair or are there many Kacha/mud houses?
- What is the appearance of yards?
- Are there social services agencies, grocery stores, pharmacies, health care providers, schools, and mosques?
- What modes of transportation are available to the residents?
- What recreational facilities are available in the community?
- Are children in the streets or in vacant lots?
- Whom do you see on the streets?
- What animals do you see?

Hearing

- What can you hear when you walk through the community?
- Is the area quiet?
- Can you hear birds singing and children playing, or are there loud industrial noises, traffic sound?

Taste

- Use the sense of taste to assess the flavor of the community.
- What kinds of food cooked, fruit available?

Smell

- How does the community smell?
- Are there pleasant odors of flowering trees or bad smell due to garbage, sewage?

Touch

- Use touch to understand how it feels to be there.
- Do you feel uncomfortable?
- Do residents seem friendly?
- Are they willing to invite and chat, or do they ignore you and hurry on their way?

Talking to community Members & People in Group

In most cases it will be difficult, if not impossible, for you to talk to all of the people in a community. The community is often too large and your time is often too limited. It is usually more realistic to choose and talk to only a selected number of community members.

This is called choosing a sample. You choose a sample to get accurate information about the community without actually talking to every community member.

Choose people for your sample who represent the variety of views and opinions in the community. For example, in a village with 280 households you might talk with every tenth household or only twenty eight households in all. These households should represent big families, small families, poor families, families that are not very poor, and the full variety of types of households in the community. Then the information you gather from these twenty eight households will represent the information you might get from all 280 households.

In the same way, choose for a sample of community members. People in different groups, occupations, and leadership positions. Again your goal is to make your sample as representative of the community as possible. The amount of time you have to gather information will determine the size of your sample. The number of people who can help you will also determine the size of your sample.

Be aware that community leaders may tell you to talk to certain people or households that may not be representative of the entire community. Your purpose in getting to know the community is to look at the whole community and not just certain parts. If the community leader tells you to talk to certain people, do so. But also talk to other people to get the complete picture you are looking for.

**What activities to be carried out in the community**

- Health education to groups on the control of certain diseases by immunization, oral rehydration therapy and proper nutrition.
- Counseling individuals or families during home visits on antenatal care, child growth and development and ways to keep oneself healthy.
- Keeping household clean.
- Participation in some of the ongoing community activities.
- Training of TBA and Female BHWs.

**MCHO's role in choosing activity (to begin with) based on information**

After you have information about existing health problems you need to plan & carry out activities to help people enjoy healthful living. For example if you have 60% of 0-5 children are not immunized you need a immunization campaign or if reported sickness among 0-5 with diarrhoea then you need to start a program for educating mother about the use of ORS and ways to prevent diarrhoea.

Before starting an activity list all resources available to start the activity (time, knowledge, equipment, supplies). Begin with activities which the community health needs, and also which requires fewest resources.

Sometimes people in the community may choose different priorities. You have your own idea as well. Never act on your idea or you may lose the support. Always better to convene a meeting and express your opinion. Advise them, keeping in mind the interest of the entire community & not just for some persons.

VILLAGE AND DAI PROFILE

1. Village

Date .....

Name of Village ..... District ..... Province .....

1. Names of formal village leaders.

| | Name | Major Activities | Other Activities |
|---|---|---|---|
| (1) | ..... | ..... | ..... |
| (2) | ..... | ..... | ..... |
| (3) | ..... | ..... | ..... |
| (4) | ..... | ..... | ..... |

2. Names of informal leaders. (Traditional Leaders)

| | Name | Major Activities | Other Activities |
|---|---|---|---|
| (1) | ..... | ..... | ..... |
| (2) | ..... | ..... | ..... |
| (3) | ..... | ..... | ..... |

3. How often do community leaders usually meet to discuss village affairs and where do they usually meet?

How often ..... Where .....

4. What organizations are presently working in your village?

| Government | | Non-Government | |
|---|---|---|---|
| Name | Activities | Name | Activities |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |
| ..... | ..... | ..... | ..... |

5. Name of the influential or social working ladies in your village.

..... ..... .....

6. Name of Dais working in the village.

..... ..... .....

7. What facilities are presently available in the village?

Health Centers ....., Schools/Collages....., 
Teaching Institutions ....., Technical Training Centers ..., 
Indigenous Practitioners .., Medical Stores ....., 
Other ....., Mosques ....., 
Shrines .....

8. What major celebrations are observed in your village?

Name ..... Date .....

9. Comments:

TRADITIONAL BIRTH ATTENDANT (DAI)

## General Information

Name ..... Age.....
Husband/Father's Name ..... Occupation.....
Marital Status..... Years Married.....
Name of village..... District..... Province.....

1. For how long have you resided in this village? .....

2. Education (Years of schooling) .....

3. (a) Midwifery training. Name of institute, duration of training, date
.....
.....
(b) If not from institute, by whom, where, and duration of training?
.....

4. How long have you been practicing as a DAI? .....

5. How often do you usually visit during:
Prenatal period ..... Postnatal period .....

6. In your opinion what sign and symptoms need referral during:
.....
Antenatal period .....
.....
Natal period .....
.....
Postnatal period .....
.....

7. To whom do you refer mother when complaints are noted?
.....

8. Do you have a midwifery kit? if not what equipment do you use?
.....

9. How many deliveries have you conducted in the last 12 months?
.....

10. Other Comments:

## Afghanistan Health System

Afghanistan's largely rural population (80%) is scattered among more than 20,000 villages and towns mostly ranging in size from a few hundred people to a few thousand people. Even before the war the rugged terrain and brashly climate made routine travel to the large cities for health care impossible for most people. The primary health care infrastructure must reflect the geographic and demographic realities of Afghanistan. It must also balance the needs of the population against the constraints of health man-power availability and the need to build a system which is financially sustainable.

The foundation of primary health care pyramid in rural Afghanistan is the community health worker (C.H.W) or Basic Health Worker (B.H.W). Most of the health problems which cause death and disability in Afghanistan can be handled at the village level by BHWs working at basic health post. BHW training capacity is being built to train and support a ratio of at least one BHW for every 5000 people. Though in less densely populated areas one BHW may serve as few as 500 people. BHWs are taught to provide basic preventive community health education on topics such as water, sanitation and personal hygiene. They are also taught to provide essential care for common potentially life threatening diseases. Finally they are taught to play a supportive role in the immunization program.

For supervision of these BHWs we trained one Rural Health Officers (RHO) for each district. Beside supervision of BHW he is responsible to implement preventive and health education programs, logistical support of BHW and submitting report about the health program in district to PPHD.

The next level after Basic Health Post in PHC pyramid is Basic Health Center. Basic Health Centers are staffed by one physician or two to four mid-level Health Workers and serve a large community than that served by Basic Health Posts (5000-3000 people). These Basic Health Centers are usually for the subdistrict or district level services. Basic Health Centers are the first line of referral for BHWs. Basic Health Centers don't have patient beds or laboratory services. They are expected to serve as center for facility based immunization campaigns.

In the district or subdistrict level we also have one MCHO (Maternal Child Health Officer) who is working in MCH center and is responsible to provide prenatal deliveries and post natal care diagnosis and treatment of common diseases of women and children and Health Education for prevention of diseases, sanitation and personal hygiene.

Above the Basic Health Center is the comprehensive Health Center. Ideally a comprehensive Health Center will be staffed by a medical doctor one or two advanced mid level health workers and several mid level health workers. Comprehensive Health will serve as the next line of referral for Basic Health posts and Basic Health Centers. In general they should be equipped with three to five patient beds and a small field laboratory. These Comprehensive Health

Centers will be the major government health facility in less populated districts which cannot support a hospital. Comprehensive Health services tuberculosis control, malaria control and disability services. Programs will differ for one center to another, depending on local diseases pattern the, health needs of the community and the availability of the trained personnel. Comprehensive health Center will also play an important role in supporting the cold chain and immunization activities.

The next level in the PHC pyramid is the Primary Care Hospital, Which is expected to serve one to four district depending on population and geography Primary Care Hospitals should be staffed by one to three medical doctors and are expected to have ten to twenty patient beds, a field laboratory and portable x-ray capability.

Primary Care Hospital will serve as the main referral point for patients from comprehensive and Basic Health Centers. In addition staff at these hospitals should provide support for MCH, T.B, Malaria, Disability or other special programs provided at Comprehensive and Basic Health Centers in the area.

The next level is the provincial hospital which will offer specialized medical services most major surgical services freeze point capacity, health worker training, expanded laboratory services prosthesis, fabrication and other more specialized services will be provided by provincial hospital. Provincial hospitals are expected to have up to 50-100 beds. The facility is designed to cover at least one province.

The regional health hospital is designed to cover 3-6 provinces and has (50-200) beds. The services offered will include a more advanced technology with regards to laboratory and radiological services.

## Provincial Health Director's

## Job Description

**a. Position:**

Provincial Health Director

**b. Responsibilities:**

Provincial health director as the highest health authority at the province level has the following responsibilities:

- Taking part actively on the rehabilitation of health system in the province. He should follow the health master plan designed by the Ministry of Public Health.
- Managing and supervising the health services in the community.
- Extending the health services upto the level of the community health needs and requirements.

**c. Specific responsibilities:**

1. Planning and assessing of provincial health activities.
2. Managing and coordinating of provincial health activities.
3. Proposing for the appointment of required personnel.
4. Specifying and determining fund for different health programs. He should also follow the process of the budget specified for the programs.
5. Proposing new and essential health projects.
6. Administration and technical supervision of all health programs in the province.
7. Proposing for the provision of required medical and other material.
8. Managing of provincial health department.
9. To report the health activities regularly and to collect information regarding the progress of health programs.
10. Creating a standardized system for getting information about health problems in the community and opinion of the people in this regard.
11. Conducting workshops and seminars about administration and supervision of provincial health program.
12. Conducting of refresher training courses and supplying the teaching materials.
13. Planning for the provincial health training program.
14. Submitting of quarterly health progress report.
15. Visiting of different areas in the province in order to supervise health activities.

**d. Qualifications**

Provincial Health Director must be an MD with at least 3 years of experience.

**e. Language**

Provincial health director should be able to speak and write both in Dari and Pushto fluently. He should also be able to talk and write English.

**f. Report Receiver Office**

General manager of Health Services Department

**g. Organ**

**h. Field health workers in the province**

All health workers n the province

**i. Source of Health Plan**

Master plan of Ministry of Public Health

**j. Job requirements**

Provincial health director should be the resident of the same area and he should have at least 3 years of work experience in the same province.

## MCHO's Job Description

Refer to page 1.

## RHO Job Description

The basic job of the RHO (male) will be to manage primary health care at the woleswali level, under the supervision of the provincial public health directors. "Managing PHC at the woleswali level" has the following major components:-

1. Technical supervision of all BHWs in the woleswali.

   Implementation of preventive and health education programs (such as Immunization, environmental health, and so forth) in collaboration with health centers or clinics in the woleswali.

2. Making sure that public health policies of the PPHD are appropriately carried out in his woleswali.

3. Submitting reports on a regular basic to the PPHD from each MOPH-supported clinic or health center, as well as his own reports regarding health in the woleswali.

4. Support Primary Health Care (PHC) through more effective health education, MCH and prevention activities by BHWs and by clinics, health centers and hospitals in the district.

5. Support Logistics for BHWs and clinics and for prevention programs in the woleswali.

6. Close involvement with the community and with other (non health) sectors, including organizing communities to become more involved in health.

7. Supervision of preventive and public health programs for clinics and health centers (but not curative care).

## B.H.W's Job Description

It is the duty of a BHW to take care of the health activities of the area and to take part on the development of his environment. What the BHWs are doing, should not exceed. What they have learnt in the training course. BHWs are dealing those health problems which are common and very easy to do.

They are not allowed to interfere those problems which are out of their knowledge. Therefore, they should refer the bigger problems to the higher health centers.

BHW knows that he cannot work alone, so he should work in a medical team. he should always seek their team leaders advises concerning the problems.

BHWs should encourage the community to take part actively in the health programs and propose the suitable ways for solving the existing health problems in the community.

BHWs should avail the existing sources for the improvement of the community life.

Ensuring the health to the community is not only related to health program but also related to other sectors of life i.e. culture, agriculture, public services, transportation and communication. Keeping in view the health problems in our country, BHWs have the following jobs to do:

1. Carry out social health activities.
2. Patient's care.
3. Management and administration of health post.
4. First Aid.
5. Common clinical problems.
6. Child health care.
7. Mother's health care.
8. Development health services in the community.

## TBA Job Description

The FHW is trained to deliver health care and to teach other women within her family group. Her role is to:

- Visit the pregnant women in her family group regularly to advise on health care during pregnancy.
- Motivate pregnant women to attend the Basic Health Unity (BHU) for antenatal care.
- Encourage the women to be immunized against tetanus.
- Be able to carry out a safe normal delivery.

- Recognize early signs of complications in pregnancy and labor and after delivery, and refer to the BHU Lady Health Visitor (MCHO) or VHS as necessary.
- Manage any complications until referral is possible.
- Improve care of the mother and baby after delivery and undertake regular home visits to them.
- Act as a health educator and motivator for : immunization of children under 2 years of age, personal hygiene and environmental sanitation.
- Manage and give advice on common conditions such as diarrhoea, fever and respiratory infections and refer when necessary to the BHU.
- Share her new skills and knowledge whenever possible with other women.

## Volunteer Health Sisters Job Description

1. Personal hygiene and environmental sanitation motivation.
2. Prevention, referral and treatment of diarrhea.
3. Prevention, referral and basic treatment of ARI.
4. Nutrition motivation for child growth and use of Mid-Upper Arm circumference tape.
   a. Breast feeding
   b. Weaning
5. Immunization motivation for women and children.
6. Safe Motherhood advice and motivation.
   a. Pre/post-natal and delivery advice and motivation (Nutrition in pregnancy, warning signs in pregnancy, trained birth attendant, sterile cord-cutting).
   b. Child-spacing through breastfeeding.
7. Accident Prevention and First Aid.

Potential tasks to be added later in specific location:

8. Malaria prevention and referral.
9. Leprosy prevention and referral.
10. Tuberculosis prevention and referral.
11. Helping disabled people.
12. Dental care.
13. Mine Awareness.

## 5. Home visits

### Definition

A family consists of related members of one generation or more, living together under one roof or within a compound. This means that a family is made up of individuals of different ages and sexes. Each member has a specific role to play within the family and the community. In the past, health programers were not as effective as they could have been; services were planned and delivered separately and by a number of specialized workers. Experience has shown that providing integrated services with the family as the focus of attention has resulted in better use of existing services as well as improving the health status of individuals in the family.

An MCHO promotes the delivery of integrated services by :

- Informing the people about all the health and related services available.
- Assessing their health needs.
- Helping them properly utilize available health services to meet their needs.

### Why MCHO needs to work together with the family?

To achieve health for all, the MCHO must work with the family to improve the health status of each member from the beginning.

A family acts as a unit and a member's behavior is affected by others in the family. Therefore, decisions on the care given to one member are often made by others. For example, in providing maternal and child health services to a young mother you must work with and through the mother-in-law and the husband. The health of one person in the family affect the health of others. For example if one member has a communicable disease others may also have got it or if the father is sick or not working this will have an effect on the health and welfare of the rest of the family.

### Factors affecting family health

Traditionally, the medical system only treated individuals who were sick and so only disease treatment was included in training programmes. However, Primary Health Care focuses on keeping individuals and families healthy, therefore, we need to look at those factors which determine our level of well-being. Some of these factors are:

- Income and other economic resources.
- Size and composition of the family.
- Education.
- Customs, habits and home remedies.

Income and other economic resources

Income is a very important factor in determining one's level of well-being. This is because income determines the ability to buy the necessities of life which builds the foundation for a healthy person or family.

Income does not necessarily have to be cash. It can also be in the form of payment in kind. For example, payment for service in the form of food, housing and clothing should be seen as income. In determining total income both cash and kind should be considered.

You might find it difficult to deal with family income information. But if you look at it from the point of view of helping them, it may become easier for you. You will find it helpful if you first identify your own income and other resources and expenditures to determine whether or not you are making maximum use of them. Doing this exercise will give you more confidence and skill in dealing with families.

Size and composition of the family

Size and composition of the family are two important factors that determine family needs as well as how income and resources are utilized in meeting these needs. Size refers to the number of individuals in the family. The greater the number, the greater and more varied will be the needs. Composition refers to how the family group is formed. The characteristics and needs of the family are determined by two important characteristics or variables: Sex and age. These two variables also determine the individual's role in the family and community. For example, it is generally accepted that the role of Afghan women is to be responsible for the cooking, cleaning and general welfare of the children. Their sex makes the physiological and psychological needs of women in the family different from those of men.

Education

Experience has shown that people who are literate and educated are more often open to new ideas than those who are not. People who cannot read will obviously not be well informed on that is happening in the community or the country. Consequently, they may not know about existing health services and the Health Technician's role.

Customs, habits and home remedies

- **Customs:** The customs of a society have a great influence on the health and welfare of individuals and families. When customs, ideas, habits and ways of behavior passed on from repeated they become traditions. They are very difficult to change and not all of them need changing. As MCHO you will have to become familiar with different behaviors so that you may relate your activities to them.

**- Habits:** These are developed by individuals and families and may become customs. Habits and customs are formed by repeating certain actions frequently so that these actions are carried out without conscious effort. Some family habits and customs in managing health conditions and illnesses are passed down from one generation to the next.

You as MCHO want individuals to develop such health promoting habits as:

- Visiting or contacting you when indicated.
- Bringing the children to the immunization clinic.
- Taking steps to hydrate a dehydrated child.
- Coming to the MCHO Post at the early signs of illness rather than waiting until it becomes serious.
- Contacting MCHO about their concerns and fears.
- Making use of available antenatal care.
- Keeping the living and working environment clean and safe.
- Eating an adequate diet to stay healthy.

**- Home remedies:** These are ways a family manages their own health conditions or illnesses. As Health Technicians you need to be aware of the family's general habits as well as their home remedies. The remedies may relate to eating, sleeping, rest, recreation and other activities. First you need to identify them, list and describe them, then from the list and, description classify them as being health promoting, endangering or harmless. Then encourage the family to maintain the health promoting habits, change the health endangering ones ignore the harmless ones.

**Reasons for Home Visits**

As MCHO you are in the community to help people attain better health. You will be responsible for explaining the services available from MCHO post, BHU and RHC and for giving help in these areas:

- Routine antenatal and postnatal visits.
- Home Delivery.
- Child Health Care.
- Immunization follow-up.
- Family requests in case of illness or injury.
- Hospital follow-up treatment or illness or injury recovery.
- Identification of family needs.
- Determination of the severity of diarrhoea in small children and teaching of oral rehydration therapy and management of diarrhoea.
- Monitoring the growth of children, preventing malnutrition and teaching sound nutrition, sanitation and personal hygiene.

## Principles and guidelines in working with families

In order to effectively work with the family, the following guidelines need to be followed:

| Task | Guidelines for Health Technicians |
|---|---|
| 1. Establish a good working relationship with family members. | • Observe the customary greeting practices and be sure to introduce yourself.<br>• Speak to them with respect.<br>• Do not get involved in contro-versial family issues.<br>• Listen to them and their concerns patiently, be understand and show concern. |
| 2. Collect only necessary information on family size, occupation, education, customs and traditions. | • Collect information by observation, inquiry and explain the purpose of information collected. |
| 3. Identify the health needs of the family. | • List first the health needs and problems as given by the family, then add to this to list you own observations. |
| 4. Limit health discussions to one or two topics during a visit. | • Which are the most life threatening problems?<br>• Which problems are the family most worries about?<br>• Which problems can I and the clinic staff do most about? |
| 5. Plan with the family actions to be taken to solve identified needs. | • Discuss each need or problem with the family.<br>• Suggest possible ways to meet these needs. Give alternative suggestions when possible.<br>• Find out how they want to handle the situation.<br>• Suggest necessary actions.<br>• Give the family a time period in which to proceed with the planned activities. |

| | |
|---|---|
| 6. Help the family carry out their plan of action. | • Determine with the family which activities they can handle themselves and for which activities they need your assistance.<br>• Provide assistance if needed. |
| 7. Encourage the family to be self-reliant in meeting their needs. | • Assist them by doing the procedure they are most uncomfortable with.<br>• Provide necessary knowledges or skills that family members begin to feel comfortable in assuming planned activities.<br>• As members of the family gain confidence and skill, give them more responsibility in meeting their needs.<br>• Evaluate the family's progress in their health maintenance activities. |
| 8. Record your home visit, and provide continuity through regular planned follow-up home visits. | • Write down very briefly the topics discussed, recommendations given and any problems noted.<br>• Start the next visit with what was discussed previously.<br>• The purpose of a follow-up home visit is to reinforce the advice given and find out whether the family/individual understood and is able to follow recommendations. |

**Planning for Home Visit**

Before a home visit is made:

- Determine where the houses are located and how far away they are from your health post.
- Know the names, titles and addresses of other Health Technicians (TBA, etc.)

Home visits should start at the homes closest to the post. The distance for visiting other homes can be increased as you develop skills and the community sees the benefit of your visits. Once you should make your first visit of the day or week at the home farthest away and work your way back to the center.

You will need to plan the number of home visits you can make in a day, week or month in order to be most effective in serving your communities. Make plans for visiting within the time limits of your working hours. Make your home visits on a priority basis. For example, if you need to make 10 home visits and you only have 3-4 hours in which to make them then:

- Determine which visits can be postponed. A new antepartum case may be visited later but a child with diarrhoea should be visited immediately.
- Visit those you have promised to visit.
- Visit those families who have come to you requesting you to assess their needs.
- Visit those who have not returned to the clinic for follow-up.

Remember to keep accurate records of all visits in your diary.

**Preparation**

Know what you are going to do and what you will need. Be ready to:

- Review your records of the individual and/or families to refresh yourself or the purpose of your visit.
- Review the procedures you will use to make sure you know them and have the necessary materials with you.
- Make sure you have the necessary information about other valuable services which may be required during your visit. For example, information on when/where supplementary food is distributed for malnourished children. have names and addresses of other resources, such as the TBAs, VHSs, etc.
- Make sure your bag or kit contains the necessary equipment and supplies, including teaching aids and your diary.

**Case Study and Role Play**

CASE STUDY NO. 1:

Gul Bibi is a MCHO in a small refugee village in Bajaur. This morning, she made a home visit to some relatives she had no seen for sometime. They were very pleased to see her and invited her to sit down while they made some tea.

While her cousin boiled the tea, her son sat by the kerosene stove whimpering. He had burnt the whole of his lower leg the night before when some boiling water had fallen from the stove. The burn looked dirty and was plastered in ghee.

Gul Bibi noticed a small girl in the other corner of the compound defecating next to the water containers. The child had loose stools and her clothes were soiled and dirty.

All the women in the compound sat with Gul Bibi as she drank tea and ate nan and potato. It was the hot season and she had difficulty brushing the flies away from the food as she ate. The flies didn't seem to bother the other women who continued to eat undisturbed.

Sitting next to Gul Bibi was a pale and tired young woman, who was pregnant. She didn't eat very much, she just picked at her food. In the young woman's lap was a small 8 months old baby. The baby was also weak and thin. The young woman complained that he often cried and that her breast milk just didn't seem to satisfy him.

Gul Bibi sipped her tea and looked around her again. There were a lot of problems to tackle but which one would she choose first and which problem should she deal with on the next home visit?

CASE STUDY NO 2:

Sultana has recently started training as a MCHO. Each after noon she goes on a home visit to one of her extended families and then discusses the home visit with her trainer the next day at the beginning of the lesson.

Yesterday she went to visit a distant relative, because she knew that one of the women in the house had recently had a baby. When she arrived in the compound she noticed that several of the children had weeping sores on their faces. One child was scratching his face with very dirty fingers.

Her relative led her into the house to see the new mother. When she checked the women she noticed that her vaginal discharge was smelly and her abdomen slightly tender.

In the other corner of the room was a small child, about 2 years old, wrapped in a goat's skin. The child had had fever for 2 nights and the relative said the child was still unwell.

While Sultana was talking to her relative, one of the older women in the house builded up some tea. The old woman had very bad cough and looked weak and ill. She coughed over the cooking food and spat her sputum out by the ghee.

Over by the well Sultana could see chicken perched on top of the well bucket. She also noticed that the latrine slab had broken and that the children were defecating just outside the compound door.

The trainer asked Sultana which problem she had chosen to deal with first, and what problem she would deal with on the next home visit. What do you think Sultana's answer should have been?

FAMILY ASSESSMENT FORM

Family Name _____ Husband's Occ. _____

Family Address _____

FAMILY RECORD

| Name | Relationship to Head of Household | Education | Health Status |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Source of Income 1. _____
2. _____
3. _____

Where do they go if someone is sick? _____
_____

FAMILY MEMBERS

| 12 M | | 1-4 Y | | 5-15 Y | | 15 + | | PREGNANT | HANDICAP | |
|---|---|---|---|---|---|---|---|---|---|---|
| M | F | M | F | M | F | M | F | NAME OF MOTHER | M | F |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

**Family Assessnebt Form**

| MAJOR PHYSICAL HEALTH PROBLEMS DURING 1 MONTH | IF ANYONE WAS SICK WITHIN A MONTH |
|---|---|
| | |
| | |
| | |
| | |

SUMMARY OF FAMILY MEMBERS HEALTH STATUS _____

ENVIRONMENTAL ASSESSMENT (include family strenghts ans needs) _____

NUTRITIONAL ASSESSMENT (0-5 & pregnant mothers) _____

SUMMARY OF FAMILY STRENGTHS _____

SUMMARY OF FAMILY NEEDS _____

## 6. Health education

### Definition:

Health education is the process by which people learn and as result of their learning change their health habits and attitudes. Success in health educating is achieved by providing necessary information and motivating people to change their behavior or attitudes leading these to enjoy better health, e.g. stopping giving nutritious food to a measles child.

In other words, health information is given to an individual or group so that they will be better informed and change any undesirable or unhealthy habits to healthy behaviors based on newly acquired knowledge, attitudes and skills. This success of health education is measured in terms of changes in these three areas (Knowledge, attitude & behavior).

### Different Steps in the health education process

What Health Education does is to provide adequate and appropriate information to all participants. this newly acquired knowledge can then be incorporated with each and individual decision.

- Some people will accept without hesitation.
- Some people will think and discuss with others and then accept.
- Some will refuse to accept.

However as MCHO you need to continue your education and work through those who accepted it. They should narrate their experience to others.

### Role of MCHO in Health Education

- You have direct contact with people at local levels.
- You are trusted by the people.
- You are the person to whom people come to seek advice on health problems.

Your role in health education/communication will be to:

- Identify health problems needing Health Education in the family and community.
- Identify associated health practices of people which contribute to their problems.
- Analyze those contributing factors or behaviors and identify those that need to be changed.
- Prepare your Health Education program for family and community.
- Carry out the Health Education programme in the clinic, family and community.

Following are the topics for Health Education. Details of the topics you have already learne in your BHW course and some you will learn during MCHO training.

## Topics For Health Education

| Task | Guidelines for Health Technicians |
|---|---|
| MCH care | Advise about:<br>• Prenatal, natal and postnatal care.<br>• Nutrition for pregnant women.<br>• High risk pregnancies.<br>• Breast-feeding from birth.<br>• Supplementary Weaning food. |
| Immunization | Educate Parents about:<br>• Immunizable diseases which as measles, polio etc.<br>• Schedule of immunization.<br>• Value of immunization.<br>• Side effects. |
| Diarrhoea control | Counsel mothers on:<br>• Diarrhoea.<br>• Dangers of diarrhoea and dehydration.<br>• Use of ORT and/or home remedies to prevent dehydration.<br>• Need to continue feeding.<br>• Prevention of diarrhoea. |
| Treatment of minor ailments:<br>Worms<br>Boils<br>Scabies<br>Dysentery | • How, why and where the disease spreads and how to prevent it.<br>• Spread of skin infections and prevention.<br>• When to seek referral. |

| | |
|---|---|
| Care of emergencies and referrals | Conduct classes on:<br>• First aid.<br>• Continued use of ORT on the way to the hospital.<br>• How to avoid accidents and fires.<br>• Artificial resuscitation.<br>• Burns. |

**Planning and carrying out a health education programme**

The steps to be considered in planning and carrying out Health Education Programme are:

- Defining the health problems.
- Identifying the cause/reason of these problems.
- Identifying specific health behaviors which contribute to the health problem.
- Locating the areas in which people need to be educated.
- Selecting target groups and schedule for communication activities.
- Assessment on provision of materials which are necessary for Health Education.
- Clarifying and listing duties/tasks which you will perform to educate people in health matters.
- Carrying out Health Education activities designed to motivate people toward desired health actions.
- Properly recording and reporting Health Education activities.
- Evaluating the results and modifying the plans if necessary.

**Guidelines for Health Education:**

There are certain rules you need to follow in conducting Health Education sessions.

Do communicate well with people

- Listen to them.
- Share ideas with them.
- Receive ideas from them.
- Understand behavior of individual or group.

Do learn the skills needed to work with other people

- Understanding people's problems.
- Supporting and helping people.
- Finding ways to solve problems together.
- Learning from mistakes.
- Learning from each other.

Do ask their advice on how to motivate people to bring their children to vaccination or education

- Request their help in arranging a session.
- Be reliable and punctual.
- Tell people about the side effects of vaccinations.

Do be polite and friendly

- Have your group sit comfortably.
- Sit with people according to their customs either on charpoys, the ground, while visiting their houses.
- Do not try to show yourself as a big and proud government officer.
- Treat everybody equally.

Do teach in interesting ways

- Use simple language (the language of the people to whom you are talking).
- Do not use medical terms while giving information on Health Education.
- Talk for a short time, then ask people their opinion (do not ask questions as if you are examining them).
- Use your teaching aids - posters, flip charts, etc.
- Listen to what people say about the subject you are talking about.
- Encourage people to tell you their experiences.

Do plan what you want to teach

- Make a list of the ideas that you want to teach.
- Teach one idea at one session.
- When you have finished the list, go back to the beginning and start again (there will be some new people in the audience by then).
- Make sure that you know what you will teach today.
- Your list helps you decide on and not leave out important ideas, but you do not nee to follow it exactly.

Encourage people to ask you questions

- If you do not know the answers, tell them you are not sure of the answer but will fi out.
- Avoid giving wrong information, if you do not know the answer.

Wear appreciative dress.

Health Education in a MCH center or home community where you work is the first obvious place where you can teach people through:

- Individual consultations in the home clinics.
- Mother's classes in the home and clinic.
- Demonstrations in the home and clinic.
- Group talk in female schools.

Health Education is very effective when given during treatment or at bedside. When a health talk is well prepared and presented in a lively way, it is an effective method for sharing health knowledge and facts.

**Methods**

There are many methods and techniques used in education. Each has its own strength an weakness in accomplishing objectives. There is no one method that is effective for all situations. Different situations need different methods. Criteria for selecting the most appropriate methods are: the size of the group, the type of message to be conveyed and the teaching materials available. The following is a list of various teaching methods as well as the criteria for when to use them.

Research findings show that most people retain:

10% of what they read.
20% of what they hear.
50% of what they see and hear.
90% of what they practice.

Methods

| Teaching methods | Criteria for using the method |
|---|---|
| Lecture. | • Large group (50-100 persons).<br>• Providing knowledge. |
| Questions and Answers. | • Any group to obtain discussion.<br>• To stimulate the discussion. |
| Discussion. | • A small group of two to ten persons. |
| Demonstration and practices. | • A small or large group, when a teacher feels it is appropriate and materials are available.<br>• Teaching procedures. |
| Role plays. | • Small or large group.<br>• Conveying inter-personal communication. |
| Storytelling. | • Small group.<br>• Transferring new or different ideas and behavior. |
| Counseling. | • One to one.<br>• A small group. |
| Visual Aids. | • Poster, slides, etc. |

Lecture

This is the oldest and most commonly used method of teaching. In this method, the teacher usually speaks while the students listen. A lecture is a one way communication method because only the teacher is talking. It is the least effective teaching method because there is very little or no opportunity for the audience to participate in the learning process. Sometimes the audience loses interest just having to sit and listen. When combined with discussion however, this method becomes more effective.

Lectures can be made more interesting by using slides, films, charts etc. The lecture should not last for more than 20-30 minutes otherwise the audience will get bored.

Questions and answers

Asking questions is a method for you to get the information you want from the MCHO and for them to get the information they want from you. For example, at the beginning of a new topic you can find out what the MCHOs know already about the topic by asking questions. There are two methods of asking questions: the *open* and *closed* methods.

An *open* question is one which encourages free expression and is an excellent way of finding out how much knowledge and individual has on a given subject. Questions starting with *why, how, what, when* and *which* are usually open questions. Here follow some examples:

- Why is breast-feeding good for your baby?
- How can you prevent tetanus?
- What spreads disease?
- When is the best time to introduce supplementary food?
- Which diseases can be prevented by vaccinating all women?

A *closed* question is where the answer is limited. For example:

- Do you breast-feed your baby?
- Is bottle feeding good or bad?
- Is your child vaccinated against measles?

Here are some tips on asking questions:

- Ask open questions.
- Make the question clear and simple. Do not use difficult or medical words.
- Ask the question and allow all the MCHOs time to think. Then choose one to answer. In this way all the MCHOs will try to think of the answer.
- You should encourage all the MCHOs to give answers, even the shy ones, but do not embarrass them. If one of them does not want to answer they do not have to. They are adults and not schoolchildren.
- After the session, stay behind for a little while to answer individual questions, because some MCHOs may be too shy to ask questions in front of the others.

Discussion

To discuss means to talk over. Here the participant and teacher talk over the topic and everyone expresses an opinion. In a discussion, questioning is accepted and answers are given by the teacher or the group. By involving the group in the process of learning, they remain alert and interested.

Here are some tips on running a discussion group:

- The group should not be too large. The best discussions take place in a group of 2-5 people. A group larger than this will naturally split into smaller groups for discussion.
- Do not allow discussion to last too long.
- Keep students to the subject.
- The teacher needs to be aware of who is contributing and invite shy members of the group to participate.
- The atmosphere should be relaxed so that students feel confident.
- The idea of participants should be brief and clear
- When one is speaking the others should listen carefully and not interrupt him/her.
- Objections should be accepted patiently.

An exercise to help you run a discussion follows:

Split the trainees into 2-3 groups of 3-4 persons for small group discussion. Allow them a few minutes to agree on possible answers. When they have finished, bring them into the large group again for a general discussion. Choose one trainee from each small group to present her group's answer to the question.

Demonstration

Demonstration is a method of showing step by step how something is done. For example to demonstrate the preparation of a supplementary food for a baby, parents must be shown the procedure step by step. After showing them, ask them to repeat the procedure. This is practice. In order to give a good demonstration, the following principles must be followed:

A- Prepare a plan for the demonstration.

- List the steps to be demonstrated.
- Practice the steps by yourself.
- Use available audiovisual aids.
- Use locally available and appropriate material.
- Involve the viewers in the preparation and presentation of the demonstration.
- Allow time for discussion after the demonstration is over.

B- Preparing for the demonstration:

- Make sure that everybody will be able to see the demonstration.
- Be sure that you have collected all the things which you will need during the demonstration.
- Bring all items to the place of demonstration.
- If possible, use a table for your demonstration. If a table is use a cloth spread on the ground or use choki in the home.

Talk clearly and slowly and make sure that everybody understands what you say.

Summarize what you have demonstrated:

Answer questions:

- Invite questions after you finish each step of your demonstration.
- Ask viewers to repeat the step which you have just explained.
- Repeat the step if it is not understood.

Find out whether your demonstration was successful by asking:

- Did your viewers learn how to prepare supplementary food for the baby?
- Can they do the same in their homes?
- What were your weak points?
- How can you improve them in your next demonstration?

Follow-up

- Go into the homes and see whether parents are practicing the newly learned and proper ways of preparing food for babies.
- Give further needed advice.

Role plays

Role play means that a person or a group takes the role or position of someone else and trie to act as that person would or should.

In the health field, we work with people to try to develop new, healthful habits or change ol ones. In doing so it is important to understand the people we work with and their belief and customs In addition to understanding people , it is also important to anticipate their probable reactions to your suggestions. To help students to face a real situation , role playing demonstrates how people react and how a MCHO should handle the situation.

Role playing helps to develop skill in working and talking with people. It requires no written script or memorization. You play the part of another person,acting out how you think the other person would act or behave in a particular situation. Depending on what an actor does,the other actor(s) respond.

Role playing is closer to real life than drama. In role playing the actors learn how scenes c situations develop and where the situation is heading . In the role playing it is important to identif what is the specific role play designed to teach.

Here are some tips on doing role-plays:

- Don't use role-plays in the first few sessions. Get to know your group of MCHOs first. For the first role-plays you should select MCHOs who will not be shy or embarrassed. Later in the training, the quieter ones should be involved.
- Start doing role-plays with just 2 characters played by yourself and a confident FHW. They can become more complicated with more characters later on in the training.
- If possible use models to assist with the acting. For example, if you are doing a role-play of a MCHO trying to get a mother to give up bottle feeding,use a feeding bottle and a doll or a real baby.
- Before the role-play starts, ask some questions which the MCHOs have to answer at th end.
- Do not allow interruptions and do not allow the role-play to go on for too long, otherwise the MCHOs will get bored.
- Discuss the role-play afterwards and get the answers to the questions you asked. Ask the people who took part how they felt. For example, maybe the MCHO playing the part of the mother bottle feeding her baby felt very insulted by the advice of the FHW. Experiencing how the receivers of health messages feel is very useful for all health workers.
- You may want to repeat the role-play using different MCHOs and perhaps more characters. The role-play above could be made more challenging. For example, the mother who is bottle feeding could have a mother-in-law who advises her to give up breast-feeding because she thinks she does not have enough milk.

Storytelling

Stories is the oldest method of teaching children about their culture. This has been used in settings where people cannot read. Storytelling can make a topic simple and lively. However, to be effective a story should be interesting and relate well to the audience.

Counseling

This means to give advice, or instruction in guiding or helping someone. In health, it refers to talking to an individual or a family and helping them to discuss their concerns and arrive at a decision on what to do and how to do it. As Health Technicians you will be spending the majority of your time counseling. The steps involved in counseling are the same as in problem solving. To

be effective you have to establish a good working relationship, be a good communicator and demonstrate an interest in the welfare of those you counsel.

Visual aids

You now need to learn what materials can be used. These are limitless and there is no rule about which is best to use. Anything that helps to convey the message is considered appropriate, from whatever exists in a house (such as food items) to the most sophisticated and commercialized items such as films, slides, etc.

The choice of material is determined by the message to be conveyed, the audience and availability. You are encouraged to use a combination of locally available materials along with what you can find in your institution or with Public Health Director.

Once again you should use various resource materials and combine them with different methods of teaching to be most effective.

This section will describe what is generally available in your school. These items include:

Flip charts.
Posters.
Slides, films and overhead projector.

*Radio & TV:* These materials are called audiovisual aids. Audio refers to hearing and visual to seeing. In this list, T.V. & film are the items that would be both audio and visual. The others are visual aids, meaning they make messages clearer because learners can see that is being taught.

*Flip chart:* This is a visual teaching aid showing a sequence of charts of drawings which are fastened together at the top. Each chart or picture can be turned forward or backward.

A flip chart may be used during a lecture or group discussion to highlight the points or steps in a process or treatment.

When using a flip chart, make sure it is placed high enough for everyone to see and stand beside it rather than in front of it while you are talking so that you do not block the view.

*Posters:* Posters can also be used to make counseling and group discussions more effective. You can also make your own posters very easily by cutting photos from calendar and newspapers and gluing these on art paper and writing a short message under the picture. A poster should have the following qualities:

- A title that is easily understood.
- An emotional appeal.
- A realistic picture which is better understood.
- Funny cartoons should be used.
- A single, simple message.

*Slides, films and overhead projectors:* A slide is a single transparent picture projected onto a screen. Both require a kind of projector to produce the picture. Instructions must be followed and you are encouraged to learn how to use these two projectors, if you are interested and have access to them.

You may also use an overhead projector which has transparent plastic sheets on which you can write out or draw your message.

**Evaluation Questions**

1. Describe the concept of health, health promotion, illness prevention and treatment of disease.

2. List components of Primary Health Care.

3. Explain the different types of leaders in the community.

4. Explain why it is so important to get to know them.

5. Describe what information is necessary to plan program for the community.

6. Describe how to choose priority health need along with the community leaders.

7. Explain why MCHO needs to focus on families in the community.

8. You should identify, list and describe the habits, customs and remedies used by families you have contacted. The areas you want to focus on are:

   Food for the newborn, infant and young child. Food for the pregnant women, sick and older members of the family. Remedies used for various illnesses, injuries and other situations.

9. Categorize these into health promoting, health endangering and harmless groups.

10. Make plans for what to do with each category of customs and habits.

11. Explain factors effecting family health, list 6 points while working with families.

12. Describe 5 reasons for home visiting.

13. Describe proper procedure for home visiting.

14. Describe what is health communication and how to communicate to another person to obtain information.

15. List the different steps in planning health communications sessions.

16. List some health communication methods.

17. Describe a few points for conducting health communication sessions.

# Chapter II

# NORMAL PREGNANCY

# I- ANATOMY

## 1. Female reproductive organs

### The External Genitalia

Labia Majora: This is formed from two folds of tissue & fat and covered with skin & hair.

Labia Minora: Two thin folds of skin lying between the inner surfaces of Labia Majora.

Clitoris: In front, the Labia Minora unites & encloses the Clitoris which is very sensitive.

Vagina: Vagina is an elastic fibror muscular, tubular structure, which lies between the urinary bladder and the rectum. It runs upwards and backwards form the vulva to the cervix uteri.

The introitus at the vulva is closed by hymen. The length of vagina is variable. It's anterior wall is shorter than posterior wall.

Perineum: Perineum is a small area of shining smooth skin which lies between the anus and the fourchette.

Vestibule: Is the area enclosed by the labia minora in which are situated the openings of the urethra and the vagina.

Uterus: Uterus is a pear shaped organ about the size of a woman's fist. Located behind the bladder just above the vagina. For learning purposes we divide the uterus into 3 parts. Lower part of the uterus that opens in the vagina called cervix. Middle portion body and top most part is called fundus. They arch over the ovarieus in order to receive the ovum.

Fallopian Tubes: These are two muscular canals attached to uterus at both sides and ends of tube open near ovaries.

Ovaries: They are small organ lying in both sides of the uterus. They produce ova. They also produce hormones which help in preparation of lining of the uterus, pregnancy, and responsible for female characteristics.

## 2. Breasts

### Structure

The part of the breas: which is towards the axilla is known as the axillary tail of the breast. The areola is well pigmented and circular, and has a diameter of 2.5 cm. There are many sebaceous glands in the areola which secrete a lubricant called sebum. The nipple is at the center of the areola and is situated at the level of the 4th rib. The nipple is made up of erectile tissue and has small orifices which continue right to the lactiferous ducts.

## 3. The normal Female Pelvis

The pelvis is a bony ring interposed between the trunk and the thighs. As the fetus leaves the mother's body at the time of birth, it is protected by this bony structure of the pelvis. These bones, together with the cervix and vagina, form the birth canal.

If the pelvic bones are of normal size and shape, they will not obstruct the passage of the fetus. If, however, they are in any way abnormal, they may cause trouble. It is important therefore, to know a normal size pelvis so that an abnormal one can be recognized. It is also important to know the diameter of the fetal skull. The head is usually the first part to be born, and there are certain positions which make its birth easier than others because of the smaller diameter of the head in these positions. The structure of the birth canal and its measurements are revised in this module.

**Bony Pelvis**

Shape and size of the pelvis are important factors during delivery because baby has to pass through this canal. This is basin like in structure which protects female reproductive organs and other organs lying in it: uterus, Fallopian tubes, and ovaries, bladder, urethra, rectum, and anal canal. The foetus passes through this bony structure during labor.

The pelvis consists of 4 bones. Two hip bones, sacrum & coccyx.

**Hip bones**

Divided into 3 portions. Ilium, ischium and the pubis.

**Sacrum**

Bone forms the back of pelvis. Made up of five sacral vertebrae joined together.

**Coccyx**

Consists of 4 vertebrae and it bends backwards during the delivery to provide more space for the coming baby.

During pregnancy, especially near delivery time there is relaxation of ligaments of the joints resulting in some movement and little widening of joints during labor & delivery which makes the head pass through birth canal, movement may cause some difficulty in walking or backache.

## 4. Male Reproductive Organs

The male reproductive system includes the testes, vas deferens, seminal vesicles, prostate gland, ejaculatory tube, urethra, and penis.

Testes: Which produce sperm and a hormone called testosterone. These are two in number and lying in a sac of skin called scrotum which hangs behind the penis in the gorin.

Vas Deferens: Coiled tube runs through testes to the pelvis and enters abdomen as part of spermalie cord and then enters prostate glands.

Seminal Vesicles: These vesicles secrete a fluid which forms part of the semen.

Prostate Gland: This gland secrete a fluid which becomes part of the semen.

Ejaculatory tube: This tube joins the urethra just below the bladder.

Urethra: This is a canal from where urine and sperm pass through in the penis and opens at its tip.

Penis: This is long shaft of spongy tissues which contain many blood vessels. Foreskin covers the end of penis which is removed by circumcision in early childhood.

**Functions:** Millions of sperms are produced in the small tubes in the testes and remain there till male becomes sexually excited, penis enlarges hardens then sperms from vas deferens, mucus from seminal vesicles and milky fluid from prostate gland comes out from the penis. A mixture of all these things are called semen. Among million sperms ejaculated during intercourse only one active may able to reach the ovum to fertilize it, the rest of the sperms die after 48 - 72 hours.

## II- NORMAL PREGNANCY

### 1. Menstrual Cycle

Every women has two ovaries which contain many follicles which produce ova or egg. Every month one follicle in a ovary ripens and ruptures to produce ovum. This process is carried out alternatively by the ovaries, that means each ovary produce egg in a month and rests for the next month and the second produces egg.

When follicles are ripe they produce female sex hormones called oestrogen which cause proliferation of lining of the uterus. After the rupture of follicles released ovum is picked up by the fimbriated ends of Fallopian tubes. The remaining portion of the follicle is converted into corpusluteum. This produces two hormones: oestrogen and progesterone. As a result endomaterial glands grow more and prepare the uteral for the fertilized ovum. In case ovum is not fertilized the corpusluteum degenerates and sheds in the form of menstrual bleeding. Regeneration of lining takes place from next month.

Menstrual period usually lasts for 4 to 5 days, menstrual cycle last $28 \pm 7$ days on average.

Menstrual cycle continues till the age of 40 - 50 years. Then menses become irregular due to hormonal changes and bleeding stops permanently. This is called menopause and women can't become pregnant.

## 2. Conception

Conception occurs when a sperm and ovum join together. This is also called fertilization. The fertilized ovum is carried to the uterus through the fallopian tubes. It enters into the uterus after 3 - 5 days. The ovum attach itself to the uterus wall. The external cells develops into placenta and the internal cells into foetus receives oxygen and nutrients from the mother through placenta.

(2) The new cell formed from the union of the egg and sperm develops rapidly and is embedded in the lining of the womb 5-7 days after this union. From the time it embeds, the cell depends on the mother for its supply of:

(a) oxygen;
(b) food and nourishment; and for
(c) elimination or excretion of its waste products.

(3) The above is possible because part of the new cell develops into the after-birth or placenta which is to the baby as the roots are to a plant. The after-birth or placenta therefore stabilizes the foetus as well as providing the needs mentioned above.

(4) The developing baby is attached to the after-birth by the umbilical cord and it swims in a bag of water. The water keeps it warm and protects it from bumps and jars.

(5) The baby is fully formed by the time a woman misses two periods. It is, therefore, important that nothing is done in this early period to endanger these rapidly growing cells.

(6) Some drugs could destroy these cells resulting in the formation of an abnormal baby. As such, pregnant women are advised to take only those drugs prescribed by the doctor or given by the midwife, especially in the early stages of pregnancy.

(7) There is great need to avoid infection and ill health during pregnancy. For this reason the care of professional personnel should be secured as soon as pregnancy is suspected. A pregnant woman must report ill health however slight.

(8) Adequate rest is necessary as extra activities may dislodge the delicate attachment of the baby at the early stage.

(9) Emphasis is placed on the need for eating body-building food, such as milk, meat, fruits and green vegetables.

## 3. Estimated Date of Confinement (E.D.C.):

After pregnancy is confirmed you need to assess the duration of pregnancy. Duration of pregnancy is 10 lunar months from the date of last menstrual period till delivery or 280 days or 40 weeks or 9 months. Normally women deliver within two weeks before the expected date of delivery. A very few number of women deliver on expected date. Multigravidaes usually take longer gestation period.

After identifying the day of last menstrual period add 7 days and subtract 3 months from the date. eg:

| | |
|---|---|
| LMP was: | - Jan. 17 - 1990 |
| EDD shall be: | - Oct. 24 - 1990 |
| LMP was: | - April 4 - 1990 |
| EDD shall be: | - Jan. 11 - 1991 |

This estimated date is for women having 28 day cycles. Starting from first day of last menstrual cycle add 7 days and 9 months it will bring the expected date of delivery.

## 4. Diagnosis of pregnancy

### Symptoms

- Period stopping
- Morning sickness
- Heaviness and tingling of breast
- Urinary frequency and urgency
- Constipation
- Fatique
- Weight gain
- Quickening

### Signs

- Skin pigmentation (Mask of pregnancy)
- Breast changes
- Abdominal enlargment
- Palpation of foetal outline
- Auscultation of foetal heart beats
- Recognition of foetal movements
- Baby moving

## 5. Changes in a women's body during pregnancy

**Uterus:**

The uterus changes to a globular shape in early pregnancy to anticipate fetal growth and also to accommodate increasing amounts of liquor and placental tissue. This causes pressure on other pelvic organs.

**Pelvic Relaxation:**

Progesterone and relaxin encourage relaxation of ligaments and muscles, reaching maximum effect during the last weeks of pregnancy. This relaxation allows the pelvis to increase its capacity in readiness to accommodate the fetal presenting part at the end of pregnancy and in labour.

**Blood increase:**

The total blood volume is increased during pregnancy by about 30 percent. The increase in blood volume is an adaptation to supply the needs of the new vascular bed.

**Skin Color:**

The mother observes her skin changes closely and willoften comment upon the linea nigra and the areola of the breasts. If chloasmaa occurs, which is a butterflly-shaped area of pigmentation over the face, the mother may be reassured that this will diminish as soon as the baby is born.

**Increase Weight:**

The amount of weight gained during pregnancy varies from one woman to another, but as a general guide, the total gain should not be more than 25 pounds ( 11.34 kg.).

When and how fast the woman gains weight is just as important as the amount which she gains. A pregnant woman should gain weight smoothly and steadily. If her weight jumps suddenly, this needs special attention.

During the first three months, she should expect to gain about 2 to 4 lbs (approximately 1-2 kg). During the last six months, she needs to gain about 1 lb (almost 1/2 kg) each week.

If she has already gained 24 lbs after six or seven months of pregnancy, she should continue to gain moderately until delivery. The baby puts on most of its weight during those last few months.

Women who are about the right weight for their height and build at the start of pregnancy, usually will make normal weight gains by eating a good diet and having enough exercise.

If a woman is much too heavy or too light at the start of pregnancy, the cause should be investigated and help given to bring her within normal limits.

## 6. Foetal growth and development

It is easy to observe and measure the growth of the uterus after three months of pregnancy but it is not possible for MCHO to see what is happening inside the uterus and to measure it. Sophisticated scientific tools are available in some hospitals for this. However, MCHO needs to understand normal growth and development of the foetus according to the months of pregnancy This information is provided in the following table, not only for your own knowledge, but for you to be able to explain to an expectant mother about the growth of the baby according to its age in months. The months of age are counted from the start of the last menstrual period.

FOETAL GROWTH AND DEVELOPMENT

| Months pregnancy | Foetal development |
|---|---|
| 0 - 3 months | - Rapid growth<br>- The foetus is formed<br>- Heart develops and begins to beat<br>- Embryo is susceptible to teratogenic effects<br>- x-Rays, drugs, infections may cause defects |
| 3 - 6 months | - Resembles a human and becomes a foetus<br>- All organs are well formed, foetus is less susceptible to teratogenic effects growth continieus<br>- Heart tones (FHTs) may be heard with a foetoscope, foetal movements (quickening) are felt by many women |
| 6 - 9 months | - Foetal outline may be felt abdominally, another positive sign of pregnancy.<br>- More rapid growth starts<br>- Wrinkled as subcutaneous fat stores accumulate. If born infant has excellent chance for survival. |

## 7. Minor discomforts during pregnancy and MCHO's role in its management

Minor discomfort refer to the minor ailments due to pregnancy which are experienced by most of the pregnant women. They may not be dangerous but cause mother to feel sick. MCHO's role is <u>not to ignore</u> them but <u>reassure</u> and advise patient on simple remedy to manage her symptom.

| Symptoms | Management |
|---|---|
| **Morning Sickneses**<br>Many women vomit in the morning during the first three months of pregnancy. Patient feels nauseated on rising in the morning. She may vomit or have nausea with excessive slivation. Sometimes this condition impairs the appetite of pregnant mother. This conditions subsides after 12 WKS. | - Explain to pregnant women that this is normal condition during pregnancy.<br>- Advise her to take frequent small meals and avoid those things which tend to nauseate her.<br>- Avoid greasy and fried foods.<br>- Plenty of sweet mild before going to be and slowly rising in biscuits, such or cardamom.<br>- No medicine should be given for morning sickness. |
| **Heart Burn**<br>Is a burning sensation in the mediasternum due to the displacement of the stomach by the enlarging uterus leads to worsening of this complaint as pregnancy advances hearth burn is more sever when patient is in recumbent position. | - Advise pregnant mothers to sit up for some time after meals and sleep with extra pillows.<br>- Sucking of peppermint and sips of milk may give relief.<br>- Take frequent small meals. Avoid greasy and spicy foods, also do not overeat.<br>- No medicines for this condition. |
| **Constipation**<br>Is common due to relaxing effect of progesterone on intestinal muscles. | - Advise pregnant mother to take fruits and vegetables, salads, drink plenty of water and walk after meals.<br>- No purgatives/medicines should be given. |
| **Varicose Veins**<br>This is also due to effect of progesterone and pressure on lower limbs veins by enlarged uterous in pelvis. Prolonged standing also worsens this. In this condition superficial veins of the legs vulva, anus are enlorged. Sometime it gives much discomfort. | - Advise pregnant women to avoid long standing, leg should be elevated and free movement of ankle to encourage good circulation of blood. Some cases refer to seek special medical help. |

| Symptoms | Management |
|---|---|
| **Freqicncy of Micturation**<br>Due to slight increase in the pressure of gorwing uterus on the bladder resulting in frequent urination. This causes discomfort and sleep disturbance. | - Explain to mother this is normal conditions subside after 12 WKS. Also it will reappear in the late pregnancy. Advise her to take rest in the morning to make up for poor sleep at night. Reassure her no medicine is required. |
| **Backache**<br>It is more common in multiparus with bad posture. In the late pregnancy when uterus is heavy and joints are relaxed it may be more troublesome. Sometimes backache may be a sign of other problems. | - Advise for rest and good posture and use of flat sole shoes. Recognize if women have other problems along with backache refer her to the doctor. |
| **Leg Cramps**<br>Due to nutrition deficiency, vitamin B, Calcium. | Advise her to eat balanced diet including fruits, drink a glass of milk daily. Provide multivitamin tablets, one tab tow times a day. |
| **Weakness & Giddiness**<br>Due to anaemia giddiness may occur. Sometimes women may experience simple fainting after even change of posture from lying to sitting down or standing long time in the sun. | - Advise pregnant women to take ample mixed diet. Take sufficient rest and avoid working in the sun for long time. Provide Ferrous Folic acid tablets 3 times a day |
| **Itching**<br>Due to poor personal hygiene, heat rash and minor skin disease may occur. Sometimes women have itching at private parts. | - Test urine for sugar, check viganial discharge. Advise mother for regular bath and special care fo private parts. Use cotton cloths, avoid nylon dress. |

# Chapter III

# ABNORMAL PREGNANCY

66a

Contents

## I- IDENTIFICATION OF "HIGH RISK" MOTHERS

A- Age:
- < 16 years
- > 35 years
- Prima para of 30 years

B- Short women
- < 150 cm.

C- Multi-parus women
- > 4 children

D- History of previous complicated pregnancies, labor or post-natal period.
- Previous C. Section
- Retained placenta

E- Diseases:
- TB, Rubella, Heart disease, Diabetes, Hypertension

F- Pelvic deformation

G- Toxaemia
- Pre-eclampsia
- Eclampsia

H- Anaemic women

- Proteinuria
- Management

2. Eclampsia
   - Introduction
   - Management

D- Bleeding (Antepartum Heamorraghe)
- Introduction
- Management

* <u>From the beginning of pregnancy until 24 weeks</u>
  - Abortion
    - Threatened Abortion
      - Definition
      - Management
    - Septic Miscarriage
      - Definition
      - Management
  - Mole Hydatidiform
    - Definition
    - Management
  - Ectopic Pregnancy
    - Definition
    - Symptoms
    - Management
  - Cervical wounds

* <u>From the 6th month of pregnancy until the end</u>
  - Abruptio Placenta
  - Placenta Praevia
    + pictures

A - . IDE !TIFIED HIGH RISK FACTORS DURING PREGNANCY

1. Age of the mother
   Women less than 18 years - Have premature babies.
   Women more than 30 years - Women over 30 having their first child usually have prolonged. Labor, because the pelvis does not expand as easily as in a young woman.

2. Multiparus women - Women with more than 4 children have a tendency to bleed after delivery (postpartum hemorrhage).

3. History of the problems with previous labor, delivery and postpartum periods. - Prolonged and difficult labor during previous deliveries.

4. Diseases such as, heart diseases, Hypertension, diabet, kidneyan, liver diseases.

5. Short stature women Height of mother less than 150 cm, weight less than 45 kg. Shorter women may have difficult labor. She may have small pelvis. Women with a small or deformed pelvis have difficulty having a vaginal delivery.

6. Multiple pregnancy (Twins)

B - COMPLICATIONS DURING PREGNANCY

## HYPEREMESIS

Hyperemesis is excessive vomiting. Morning sickness is common during pregnancy but when it becomes more severe medical attention is required.

CAUSE: The ethology of hyperemesis is unclear but it is known to be associated with multiple pregnancy, mole hydatiform and a history of unsuccessful pregnancies. A proportion of women who experience this condition will have a recurrence in subsequent pregnancies.

### SIGN AND SYMPTOMS

1. Vomiting is frequent.
2. It occurs at all time of the day.
3. There is loss of appetite.
4. The output of urine is decreased.
5. As the condition becomes worse, the eye look dark and sunken. The tongue is heavily coated and the breath is offensive.
6. There is a drop in blood pressure.

### EMERGENCY CARE

1. Keep mother in bed.
2. Check blood pressure.
3. Measure urine.
4. Refer patient to the hospital.

## Anaemia

Anaemia is a condition of reduced the haemoglobin in the blood (Less than 10gr/day). In pregnancy, anaemia is caused by a lack of sufficient iron and folic acid in foods eaten by the woman. Because of the growing foetus, the amount of iron and folic acid needed is increased above the woman's usual requirements. Frequent pregnancies or bleeding related to abortions or the delivery process to an even greater need for iron and folic acid.

Anaemia in pregnancy is a very common condition. Some culturally related food taboos may keep the pregnant or lactating woman from eating foods with high iron and folic acid content.

Anaemia causes a woman to tire easily and feel weak. She may be unable to do her regular work. She looks pale and the conjunctival and buccal mucosa as well as the nail beds are pale.

Anaemia may result in breathing difficulty, shortness of breath ankle oedema or prominent neck veins.

Management:

MCHO need to make sure that the mother's diet is adequate in iron. Iron supplements should be:

- Advise her to rest more often. Determine her haemoglobin level
- Each visit.
- Suggest eating green leafy vegetables and foods containing iron.
- Give ferrous sulphate tablets t.i.d and folic acid 5 mg daily. Continue until 2 months after delivery. In severe cases refer to Medical Officer.

## PRE-ECLAMPSIA (TOXAEMIA):

Pre-eclampsia is one of the serious high risk condition of pregnancy .It is more common in young and in a first pregnancy. It occurs after third trimester of pregnancy. MCHO should Watch for the following signs and symptoms:

MILD: Signs and symptoms

- High blood pressure but diastolic under 105.
- Edema of the legs.
- Protein in the urine.

Treatment:

- Bedrest on left side to maximize placental blood flow.
- Have family help relieve woman of responsibilities home so that bedrest can be maintained. Give low salt diet to her. Keep in quiet dark room.
- If no improvement refer to hospital if available.

SEVERE: Signs and symptoms:

- High blood pressure with diastolic greater than 105.
- Increased edema that involves legs, hands, and face.
- Protein in the urine or decreased urine production.
- Headache.
- Blurred vision or spots in visual field.
- Nausea and vomiting with abdominal pain.
- Progression of these symptoms results in seizures which is called eclampsia (see next page)

ECLAMPSIA

If the above symptoms worsen or are accompanied by convulsions, the condition is known as eclampsia. This is very serious for both the mother and foetus. BP is 160/110 or more. Woman have severe headache urine is full with albumin.Patient may go in Comma.

Management

This condition should be treated immediately by the Medical Officer. Until medical aid arrives, try to prevent the mother from harming herself. Remove any dentures, place her head on the side, and keep something handy to place between her teeth during the fits. (A wooden spoon with a towel wrapped around the handle will do) Give nothing by mouth. Note if urine is passed. Watch for signs of labor. Be prepared for a premature baby if eclampsia occurs before full-term.

**Health Education:**

MCHO should go to the patient house and discuss with them about the complications of preeclampsia and eclampsia and convince her to come regularly to MCH post.

**Vaginal Bleeding in pregnancy**

Bleeding during pregnancy is a sign that something is wrong with the pregnancy. In early pregnancy, this may be due to an abnormality in the fetus or with the uterine environment. In later pregnancy it may be due to a placental problem. This very often signifies a serious threat to the fetus and possibly the mother.

First and second trimester bleeding

Bleeding in the first and second three months of pregnancy is usually a sign of threatened abortion (miscarriage). There is usually no pain associated and bleeding is light. If this progresses, cramping lower abdominal pain and back pain may be followed by expulsion of the fetus (spontaneous abortion). Spontaneous abortion is divided into 2 types:

1) Complete Abortion is more common in the second three months. It involves the complete expulsion of fetus and all placental tissue. Bleeding may continue and presents the major risk to the mother.

2) Incomplete Abortion occurs more often in the first 3 months of pregnancy. The woman has missed at least 1 menstrual period and has uterine cramping with bleeding. The fetus comes out and the placenta or part of it remains inside. These retained products serve as a source of continued bleeding and possibly infection.

**Treatment:**

Initial:

- At the first sign of bleeding, the woman should be kept at strict bedrest until the bleeding stops.
- Sexual intercourse should be forbidden.
- Instruct the woman or family to report the amount of bleeding and if any tissue is passed. For incomplete abortion see below:

Complications:

- If the bleeding is prolonged and/or incomplete abortion is diagnosed the woman should be referred if possible.
- For prolonged bleeding refer to postpartum hemorrhage.
- If incomplete abortion is suspected either based on current diagnosis or recent past history refer to puerperal sepsis.

Hydatidiform

It is the abnormal growth or change of placenta. The shape of Hydatidiform is like a cluster of grapes. The sign of it is vaginal bleeding.

Management:

Refer the patient to hospital as soon as possible.

## Ectopic Pregnancy

Ectopic pregnancy occurs when the ovum implants itself outside the uterus. This usually occurs in the fallopian tubes (95% of the time). As the placenta and fetus grow, eventually it will invade through the tube and cause hemorrhage and acute abdomen. Ectopic pregnancy is much more likely to occur in a pregnant women with a past history of PID. Signs and symptoms of ectopic pregnancy include normal symptoms of pregnancy (breast swelling, morning nausea, etc.), and later cause vaginal bleeding, lower abdominal pain without uterine contractions (as seen with abortions), with a positive pregnancy test. Late signs of a ruptured tube include acute abdomen, fever, and shock.

Signs usually develop in the late 1st trimester or early 2nd trimester during pregnancy. Treatment requires surgical removal of the tube in hospital. If possible, when ectopic pregnancy is suspected, refer the patient for evaluation. Miscarriages usually cause vaginal bleeding with crampy pain associated with contractions which helps distinguish it from ectopic pregnancy.

Third trimester bleeding

Commonly when labor begins a mucous plug from the cervix will be passes which is mixed lightly with blood. This is called a mucous plug. Any other 3rd trimester bleeding that is not associated with early labor and mucous passage should be taken seriously and the women transferred to a hospital for delivery.

Bleeding in the third trimester can be life threatening or only a mild cervical irritation.

Tow types of third trimester bleeding are serious: abruptio placenta and placenta previa.

In placenta previa, the placenta is located over the cervical os. When labor starts, maternal and fetal death usually results from severe hemorrhage. Symptoms are normal contractions with heavy, vaginal bleeding with bright red blood. No extra uterine pain is noted. Treatment requires referral to hospital.

In abruptio placenta, the placenta separates from the uterus, and the space between fills with blood. Hemorrhage is also a severe problem, and frequently the placental separation kills the baby. Symptoms are a painful uterus, which is constantly contracted. If there is vaginal bleeding, the blood is usually dark. In severe cases, heavy vaginal bleeding occurs, and even problems with systemic coagulation can occur (DIC) which leads to body wide bleeding problems.

Abnormal Positions:

Types: Abnormal presentations are:

- Breech (not normally classed amongst abnormal deliveries, but classed amongst pathological deliveries because of the danger of last minute complications - cord prolapse, retention of after-coming head, etc);
- Brow
- Transverse
- Face

For complete information see Chapter V

# Chapter IV

# ANTENATAL CARE

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# I. ANTENATAL CARE

## 1. Definition

A special care given to pregnant women from the time of conception till delivery to ensure healthy mother and baby.

## 2. Importance of ANC

- Provision of early diagnosis and treatment during pregnancy to avoid any serious condition that may lead to maternal and foetal death.
- Provision of health education to prepare women about care of herself and growing baby in her womb and a proper diet for the mother.
- Prepare women for normal safe delivery and normal post-natal period.
- Instruct women about care of newborn baby after delivery.
- Provide referral at appropriate place and proper time.

## 3. Identification of pregnant women in the community

As a MCHO one of your responsibilities is to identify individuals in the community who could benefit from the services of the health post. Identifying pregnant women in the community is one of your most important activities. A guideline for identifying pregnant women is provided below.

**Guidline**

| Identification Source | Health Technician's Responsibilities |
|---|---|
| - Some women may come to the health post on their own. | • Ask them first what they came for. They may have come for a reason other than pregnancy. Try to meet their identified needs first. Do not assume they have come for antenatal services.<br>• Describe available maternal resources and tell them how they can use these services.<br>• If the mother comes for antenatal care, do a physical assessment including blood and urine tests. Inform her of your findings. |
| - TBAs, BHWs, other Health workers. | • Maintain a good relationship with all Health Workers and inform them that you are seeking their help in identifying pregnant and lactating women. Let them know you want to coordinate your activities with theirs. |
| - Your own friends, relations and neighbors. | • Inform them that you are interested in locating and identifying pregnant women and need their help. |
| - Friends, relatives and neighbors of women coming to you for antenatal, postnatal or other services. | • Ask them to inform friends, relatives and neighbors of your services and have them encourage pregnant women to come to you. |
| - During your community or home visits. | • Ask if there are any pregnant women in the house of the neighborhood. |

## 4. Number of antenatal visits

In order to be sure that the pregnant mother has as normal a course of pregnancy as possible, a MCHO must have periodic contact with her throughout the pregnancy to evaluate her condition and identify any problems. The pregnant mother's conditions may be evaluated by herself, or by member's of the family. The family, therefore, should be told that if the mother experiences any signs or symptoms that are not normal, the MCHO should be informed. Descriptions of normal signs and symptoms were given earlier.

As MCHO your time may be limited by other services you provide. Therefore, the following schedule of antenatal contacts between the pregnant woman and a member of the health team is suggested. This suggestion applies only to normal pregnancy cases. Any abnormal case should be dealt with the family and the Medical Officer. You may see the pregnant woman in the home or the MCHO post.

MCHO is responsible to make sure that all of the pregnant women of her area have been examined. It will be better if the expectant mothers are examined regularly after specific periods of time. For example, in 12th, 18th, 24th, 28th, 32nd, 37th, 38th, 39th, and 40th weeks. However, for the following reasons it cannot always be possible:

- A remote clinic (long distance between the clinic and the mother's lodging).
- Inadequate or no transportation means.
- Bad road conditions or no road.
- MCHO's area is too large for her to cover.
- MCHO is also responsible for other health services. She, therefore, has to allocate some time to both her duty and responsibility.
- Mother has a lot of responsibilities.

Schedule

| Weeks of pregnancy | Number of visits | MCHO's role |
|---|---|---|
| First 12 weeks | First | • Assess general health status.<br>• Do a complete history.<br>• Conduct a healthexamination.<br>• Take weight and blood pressure do urine and blood tests.<br>• Determine the estimated day of confinement (EDC).<br>• Provide counseling on nutrition and breast feeding.<br>• Provide health education.<br>• Find out about foods that are given or taboo for pregnant women. |
| 12 to 24 weeks | Second | • Take blood pressure, weight do H.B. and urine tests and compare to first tests. Provide explanation of results.<br>• Check for sweeling of ankles face etc.<br>• Discuss personal hygiene and breast care.<br>• Discuss minor discomforts experienced by mother and give suggestions.<br>• Discuss signs of labour and plans for delivery.<br>• Listen and let mother listen to foetal heart. |

| | | |
|---|---|---|
| 24 to term | Third visit | • Assess general health status.<br>• Take blood pressure, weight, do urine test and compare with previous results.<br>• Note any changes.<br>• Discuss discomforts experienced by mother and offer suggestions.<br>• Listen for foetal heart tone, determine size and position of foetus estimate delivery time.<br>• Discuss her knowledge of and concerns about labour and delivery.<br>• Make plans for delivery.<br>• Give TT vaccine to every of pregnancy trimesters. Discuss spacing of children in any time if possible. |

**Additional visits**

Additional visits should be allocated to:

- Mothers with abnormal signs or/and symptoms during their first or subsequent visits.
- Mothers with dissatisfactory history of their previous pregnancies.
- Mothers involved in diseases that cause complicated pregnancies.
- Mothers who have already experienced more than three pregnancies.
- Primipara (Mothers on their first pregnancy).

# II. ANTENATAL EXAMINATIONS

Following examinations should be done:

## 1. History taking

First important step towards AN care is that MCHO is to know the mother and her health. Explain to the mother that purpose of taking history is to know whether pregnancy is progressing normally and to identify any problem.

**Guidelines**

- Be respectful.
- Explain purpose for taking history.
- Be tactful in asking personal questions.
- Allow time to answer questions, avoid putting answers in her mouth.
- Pay full attention to what she is saying, show no hesitation to ask again if she has not understood what was explained by you.
- Use patients name for subsequent questions, avoid medical terminology.

**Format**

| QUESTIONS | REASON FOR COLLECTING INFORMATION |
|---|---|
| Identifications: | |
| Date of visit. | • Useful as you need to know when was the first time the patient came. |
| Name.<br>Husband's Name. | • You can identify particular women. Write clearly. |
| Occupation of husband.<br>Woman work status. | • Know the socio-economic status of family. Who supports the family before talking about food. |
| Address. | • To visit home. Write down any famous place near home that makes location of home easier. |
| Age or date of birth. | • Age is important for pregnant mother, younger 18 and over 38 years of age may have many problems. |
| Number of years married. | • To determine infertility problem. |
| Obstretical history: | |
| Number of previous pregnancies live births & Abortion. | • To detect the high risk mothers, prime need is to know more about labor process & care about delivery. |
| Where was mother delivered and by whom? | |
| Experience with previous pregnancies | • Whether delivered normal or any problem during delivery occurred. who was consulted and what was done. |
| Past medical History | |
| Vaccination<br>Any diseases such as T.B, Malaria, hypertension, Icterus etc. | • To know about TT vaccines in earlier pregnancy. Any treatment for serious illness. Any allergic condition to medicine. |
| Family history | • Some diseases are common among family members, diabetes, high blood pressure, heart diseases. |
| Present pregnancy | |
| Last menstrual period. | • To calculate estimated date of delivery. |

| | |
|---|---|
| Chief complaints. | • How she feels about problem and how bothersome it is to mother. |
| Cause of problem in her opinion. | • Attitude of women towards health problems. |
| What makes the symptoms better or worse. | • You may judge before you advise things which may aggravate or relieve the factors. |
| Location of symptoms. | • To find out relationship of sign & symptom to diagnose. |

## 2. The physical examination:

### Introduction

There are three methods MCHO can use to gather information during the examination, inspection, palpation and auscultation. By inspection, an impression of the general shape and size of the uterus can be gained. The presence of a scar in the abdomen must be questioned to exclude a previous operation on the uterus. Fetal movements, skin pigmentation, striae gravidarum, and the muscle tone of the abdominal wall can be seen.

If the occiput is anterior and the back of the fetus is to the front the abdomen will appear smoothly convex. If it is posterior a flattening of the abdomen may be seen above the symphysis pubis. A big round uterus with full flanks may be due to multiple pregnancy, transverse lie, hydramnios, or obesity. If the uterus is bigger or smaller than the dates suggest, the last menstrual period should be rechecked and the patient referred to the Hospital.

(1) Inspection involves observation of the patient for any signs of disease. The patient's deformities, skin condition (rashes, scars, warts), body movements, and anxiety level all can supply clues to his or her condition. The MCHO should develop a high level of observational skills in noting any significant physical characteristics.

(2) Palpation involves feeling with the fingers or hands to determine the placement and size of organs, the presence of any lumps, or existence of pain, swelling, or tenderness. Examining the breasts and taking the pulse are performed by palpation. Palpation often helps to verify signs obtained during inspection.

(3) Auscultation is listening to the sounds of the body with the aid of a stethoscope. This method is used when listening to the heart and lungs or when taking blood pressure.

While conducting physical examination, the MCHO examines the patient's head and proceeds systematically toward the feet, which facilitates the examination process and requires the fewest number of position changes by the patient. The results of the physical examination are recorded by the MCHO in the patient's chart.

**Items required for physical examination:**

| Item | Use of each item |
|---|---|
| Thermometer | • To measure body temperature. |
| Balance-beam scale | • To measure weight and height. |
| Tape measure | • To measure the fundal height. |
| Speculum | • An instrument used for opening a body orifice or cavity for viewing. |
| Clean gloves | • Used by the physician to examine the rectum and vagina. |
| Lubricant | • An agent that is applied to the physician's gloved hand or to a speculum that reduces friction between parts and provides for easier insertion. |
| Specimen bottle | • Container in which a body specimen is placed for transport to the laboratory. |
| Cotton swabs | • Used for wiping instruments such as a thermometer and for wiping body secretions. |
| Gooseneck lamp | • A light mounted on a flexible movable stand used to focus light on an area for good visibility. |
| Flashlight | • A small flashlight used to provide better visibility of the mouth and pharynx. |
| Kidney basin | • A kidney-shaped container in which instruments are kept. |
| Waste container | • A container used for depositing soiled disposable articles. |

# 3. Vital Signs

## a. Temperature

**Procedure for taking the body temperature**

Items required:

- Thermometer.
- Soap.
- Water.
- Container for thermometer and cotton swabs.
- Kidney dish or watch container.
- Cotton swabs.

A thermometer is used to take the temperature of a person. Thermometers are available in Fahrenheit and Centigrade. The glass tube of a thermometer contains mercury. This mercury expands with heat, so when the temperature is taken, the mercury will rise to that of the body's temperature. The mercury will remain at this point until it is shaken down. Temperature can be taken by mouth, rectally or in the armpit axilla.

**Oral temperature**

- The thermometer should be clean and dry and the temperature should register at least 96 degrees.
- Have the person sit of lie down.
- Place the bulb in the mouth under the tongue to one side.
- Ask the person to keep the lips closed, to breathe through the nose, not to bite on the thermometer and not to talk.
- Leave in the mouth for three minutes.
- Remove the thermometer and wipe off the saliva with a wipe containing a disinfectant using a firm rotary motion from the top downward. Discard the wipe in a waste container.
- Read by holding the thermometer to a good light and record the reading.
- Clean the thermometer and put it away in the case with the bulb end first.

**Axillary temperature**

- Shake the mercury down to 95°F (35°C) or below. Do not moisten or lubriate the thermometer.
- Dry the area under the arm.

- Place the dry bulb end of the thermometer in the axillary and have the person put his hand on his opposite shoulder so that his arm is firmly against his body.
- Hold the thermometer in place until the temperature registers for about five minutes.
- Remove the thermometer, read and record.
- Clean and put the thermometer in its case.

**How to clean the thermometer**

- Moisten a cotton ball with water and soap it well.
- Hold the thermometer with left index finger and thumb over a kidney dish or waste container. The mercury bulb should be down.
- Beginning at the top, using an antiseptic, wipe down with a firm rotary motion all the way to the end of the bulb.
- Discard soiled cotton.
- Rinse under low running water using same downward rotary motion.
- Dry with a clean wipe or cloth. Put the thermometer in its case.

## b. Radial Pulse

### Procedure

| Procedure | Reason |
|---|---|
| - Wash the hands identify the patient, and explain the procedure. A watch with a second hand is needed to take the pulse rate. | • Pulse rate can vary according to the factors. |
| - Position the patient in a sitting or lying position. The patient's arm should be placed along side the body in a comfortable position with the wrist slightly flexed, in order to relax the muscles and tendons over the pulse ite. | • Relaxed muscles and tendons over the pulse site make it easier to palpate the pulse. |
| - Place the three middle fingertips over the radial pulse site while resting the thumb on the back of the patient's wrist. | • The MCHO should not take the pulse with the thumb, because the thumb has a puls of its own. The result may be measurement of own pulse and not patient's pulse. |
| - Apply modreate, gentle pressure directly over the site until pulse can be felt. | • A normal pulse can be felt with moderate pressure. Too much pressure closes it off, and no pulse is felt. |
| - Count the number of pulsations per minute. The rhythm and volume of the pulse should also be noted. | • The pulse rate can be counted for a full minute. |
| - Record the results. Include the patient's name, the date and time and the pulse rate. Indicate the site for taking the pulse (radial pulse). Include your initials next to the recording. | |

Record Pulse

| DATE | TIME | PATIENT'S NAME | PULSE RATE |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

## c. Respiration

The purpose of respiration is to provide for the exchange of oxygen and carbon dioxide between the atmosphere and the blood. Oxygen is taken into the body to be used for vital body processes, and carbon dioxide is given off as a waste product.

Each respiration is divided into two phases: inhalation and exhalation. During inhalation the diaphragm descends and the lungs expand, causing air containing oxygen to move from the atmosphere into the lungs. Exhalation involves the removal of carbon dioxide from the body. The diaphragm involves the removal of carbon dioxide from the body. The diaphragm ascends and the lungs return to their original state, so that air containing carbon dioxide is expelled. One complete respiration is composed of one inhalation and one exhalation.

Since an individual can control his or her respiration the MCHO should measure respirations without the patient's knowledge. Patients may change their respiratory rate unintentionally if they are aware that they are being tested. An ideal time to measure respiration is before or after the pulse is taken.

The respiratory rate of a normal healthy adult may range from 16 to 20 respirations per minute. With most adults, there is a ratio of one respiration for every four pulse beats. For example, if the respiratory rate is 18, the pulse rate would be approximately 72 beats per minute. The respiratory rate of a child is faster than that of an adult. Physical activity and strong emotional states increase the respiratory rate.

The patient's color should be observed while the respiration is being measured. A lack of oxygen (hypoxia) results in a condition known as cyanosis, which causes a bluish discoloration of the skin and mucous membranes. Cyanosis is first observed in the nail beds and lips because these are areas in which the blood vessels lie close to the surface of the skin.

## Procedure

Measuring respiration

| Procedure | Rationale |
|---|---|
| - Make sure the patient is unaware that his respirations are being monitored. This can be accomplished in the following manner: After taking pulse, the medical assistant should continue to hold three fingers on the patient's wrist with the same amount of pressure and measure his respirations. | • If the patient is aware that respiration is being taken, his breathing may change. |
| - Observe the rise and fall of the patient's chest as the patient inhales and exhales. | • One complete respiration includes one inhalation and one exhalation. |
| - Count the number of respirations per minute. The respiratory rate should be counted for a full minute, or for one-half minute and multiplied by two. A full minute is recommended if any abnormalities occur in the rhythm or depth. Also note the rhythm and depth of the respiration. Observe the patient's color. | |
| - Record results. Include the patient's name, the date and time, and the respiratory rate, rhythm, and depth. Place your initials next to the recording. | |

**Record data below.**

| DATE | TIME | PATIENT'S NAME | RESPIRATION |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## d. Blood Pressure

Blood pressure is the force of blood through the vessels from the heart contraction. The systolic pressure is the pressure in the arteries. When the ventricles contract and pump blood out of the heart, the pressure is at its peak. When the ventricles relax. The pressure is at its lowest point. Normal blood pressure is 120 systolic and 80 diastolic (120/80).

Very high and very low blood pressure are both signs of disease. Several factors affect blood pressure. These factors act together and influence each other.

If the blood vessels swell, or dilate, the space in the vessels increases, The blood pressure then drops. If the blood vessels narrow, or constrict, the space in the vessels decreases and the blood pressure rises.

Fluctuations in an individual's blood pressure are normal during the course of a day. When one awakens, the blood pressure is lower as a result of the decreased metabolism and physical activity that occur during sleep. As metabolism and activity increase during the day, the blood pressure rises. A patient who has been involved in vigorous physical activity should be given an opportunity to rest before a reading is taken. Strong emotional states, such as anger or fear increase the blood pressure. If the MCHO observes such a reaction, an attempt should be made to calm the patient before taking blood pressure. Other factors that may increase the blood pressure include pain, a recent meal, smoking, and bladder distention.

## Procedure

| Procedure | Rationale |
|---|---|
| - Wash the hands and assemble the equipment. The equipment needed includes a stethoscope, a sphygmonometer, and an alcohol wipe. Be sure to select the proper patient cuff Clean the earpieces of the stethoscope with the alcohol wipe. | |
| - Identify the patient and explain the procedure. While explaining the procedure, observe the patient for any signs that would influence the reading. | • Fear, pain, recent physical activity, and others. |
| - Position the patient comfortably in a sitting position. The arm should be at heart level, well supported and well extended, with the palm facing upward. Roll up the patient's sleeve approximately 5 inches above the elbow. If the sleeve does not roll up or is too tight after being rolled up, remove the sleeve from the arm. | • Placing the arm above heart level may cause the reading to be falsely low. The position of the arm allows easy access to the brachial artery. A tight sleeve causes partial compression of the brachial artery. |
| - Place the cuff on the patient's arm so that the lower edge of the cuff is 1 to 2 inches above the bend in the elbow. The inflatable bag should be centered over the brachial artery. | • The cuff should be up far enough to prevent the stethoscope from touching it; otherwise, extraneous sounds may be picked up. Centering the inflatable bag allows for complete compression of the brachial artery. |
| - Wrap the cuff smoothly and snugly around the patient's arm and secure the end of it. | • Applying the cuff properly prevents it from bulging or slipping. This permits application of an equal pressure over the brachial artery. |
| - Position the manometer for direct viewing and at a distance of no more than 3 feet. | • The MCHO may have trouble seeing the scale on the manometer it is placed more than 3 feet away. |
| - Place the earpieces of the stethoscope in your ears. Making sure the arm is well extended, palpate the brachial pulse with the fingertips and place the diaphragm gently but firmly over the artery. Hold the diaphragm | • The earpieces should be directed forward, permitting them to follow the direction of the ear canal, which facilitates hearing. Locating the brachial pulse allows for good positioning of the diaphragm |

with your thumb and place your fingers under the patient's elbow; there should be no gap between the skin and the diaphragm. Make sure the diaphragm is not touching the cuff.

over the brachial artery. A well-extended arm allows for easier palpation of the brachial pulse. Good contact of the diaphragm with the skin helps to transmits clear and audible Korotkoff sounds through the earpieces of the stethoscope.

- Close the valve on the bulb by turning the thumbscrew in a clockwise direction until it feels tight. Pump air into the inflatable bag as rapidly as possible up to a level of approximately 20 to 30 mmHg above the palpated or previously measured systolic pressure. Explain to the patient that this will cause a numbing and tingling sensation in the arm.

- Inflation of the cuff compresses and closes off the brachial artery so that no blood flows through the artery. A preliminary determination of the systolic pressure, by palpation, allows the medical assistant to estimate how high to inflate the cuff. If the patient has had the blood pressure measured previously at the medical office, the recorded systolic pressure can be used to determine how high to inflate the cuff.

- Release the pressure at a moderately steady rate of 2 to 3 mmHg per heart beat by slowly turning the thumbscrew in a counter-clockwise direction. This opens the valve and allows the air in the cuff to slowly escape. Listen for the first clear tapping sound. This represents the systolic pressure. Note this point on the scale of the manometer.

- The systolic pressure is the point at which the blood first begins to spurt through the artery as the cuff pressure begins to decrease; it represents the pressure that occurs on the walls of the arteries during systole.

- Continue to deflate the cuff while listening to the sounds. Continue to deflate the cuff and note the point on the scale at which the sounds cease.

- Mark the diastolic pressure (which represents the pressure that occurs on the walls of the arteries during diastole); the cuff pressure is reduced and blood is flowing freely through the brachial artery.

- Quickly and completely deflate the cuff to zero. If you could not obtain an accurate blood pressure reading, wait 15 to 30 seconds and repeat the blood pressure procedure outlined previously. Remove the earpieces of the stethoscope from your ears and carefully remove the cuff from the patient's arm.

- Venous congestion results when blood pressure is taken, which will alter a second reading if it is taken too soon.

- Record the results. Include the patient's name, the date and time, and the blood pressure reading. Place your initials next to the recording.

- Clean the earpieces with alcohol and properly replace the equipment.

**Record data below.**

| DATE | PATIENT'S NAME | BLOOD PRESSURE |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

### Decreased blood pressure

Decreased blood pressure could be due to bleeding, shock and abnormalities in the functioning of the heart.

### Increased blood pressure

Increased blood pressure may be due to tension, increased blood volume and constricted blood vessels.

An increase or decrease in one's blood pressure needs to be watched over a period of time and diagnosed medically.

## 4. Weight

### Procedure

Weight should be taken as accurately as possible. Some helpful points follow:

- An upright machine, with measuring rod, is preferable, but a portable one may be used.
- The machine should be kept in one spot. If moving is necessary it should be done with great care to avoid upsetting the balance
- The machine should be checked periodically for accuracy .
- If the scale is different from the system used locally MCHO should know how to convert the weight from one system to another, e.g. from pounds to kilograms.
- The mother should wear the same clothes each time, preferably a hospital gown.
- Be sure the machine is correctly balanced before the mother steps on.
- The weight should be recorded promptly on record card.

**Underweight**

If a woman does not make the expected weight gain ,or if she actually loses weight,examine as follows:

- Ask about her diet. She may not be having enough food or may not be having the right foods.
- Ask if she has diarrhea and try to find the cause.
- Suspect dysentery or worm infestation if prevalent in the area. If suspicious, collect stool specimen for examination . (In some areas, hookworm treatment is a routine part of pre-natal care.)
- Try to find out if any other illness is present and refer to a doctor.
- If the weight gain throughout pregnancy is much less than normal, be prepared for the possibility of the baby being premature.

**Overweight**

If a woman is gaining too much weight, examine her as follows:

- Investigate any gain over 2 pounds in 2 weeks.
- Ask about the diet. Too much food, or too many starchy foods may be the cause.
- Suspect pre-eclampsia if the weight gain is between the 5th and 7th months. This complication is an example of the extreme importance of regular, accurate weighing because sometimes an excessive gain will lead the examiner to suspect pre-eclampsia even though there are no visible signs of swelling.
- Look for signs of hydramnios (excessive fluid in the abdomen).
- Suspect that there may be more than one fetus.

## 5. Height

Height is measured on first visit, if there is no measuring rod attached to the weighing machine, a part of the wall or a door may be marked in inches or centimeters or a tape measure may be nailed to the wall.

**Procedure**

- Instruct the patient to stand erect and look straight ahead, with his or her back to the scale.
- Keeping the bar of the measuring scale in a vertical position, lift the bar above the patient's head.

- Open the bar out into a horizontal position and move it down until it just touches the top of the patient's head.
- Instruct the patient to step down and put on her shoes.
- Read the marking.
- Record the height correctly.
- Return the bar to the resting position.

**Conducting the physical Examination**

- Prepare the examining room. Make sure the room is clean and well lit, and the room temperature is comfortable for the patient. Make sure there is a clean sheet on the table.
- Wash the hands.
- Assemble the equipment. Arrange the instruments and supplies in a neat and orderly manner on a table or tray.
- Identify the patient and explain the procedure.
- Measure the vital signs and record them accurately.
- Measure the weight and height, and record the results.
- Collect urine specimen & test. Test blood for Hb%
- Wash the hands.

# Manoeuvers of leopold (Abdominal palpation of pregnant women)

| General Procedures | Reasons |
|---|---|
| - The woman's bladder should be empty. | • A full bladder makes abdominal palpation very uncomfortable for the woman & also makes it difficult to feel fetal structures. |
| - The woman's abdomen is completely exposed from just below the breasts to the symphysis pubis. | • Exposes no more than that necessary for the examination. Complete exposure of the abdomen at one time is essential for visual observation of the contours of the abdomen. |
| - The woman's abdominal muscles should be relaxed. This is accomplished by doing all of the following:<br>a. Having her arms by her sides or across her chest.<br>b. Explaining what you will be doing.<br>c. Helping her with relaxation breathing techniques, if needed.<br>d. Having her bend her knees slightly. This is especially important for Leopold's third and fourth maneuvers. | • Palpation is difficult for both the woman and the examiner if the abdominal muscles are contracted. It is difficult for the examiner to feel the fetus and therefore, tension of the abdominal muscles. |
| - Be sure your hands are warm. If not, hold them under warm water, rub them together, or hold them under a light until warm. | • Cold hands are uncomfortable to the woman. They may also cause muscle contractions. |
| - Before palpating, lightly (but not so lightly as to tickle) rest your hand on the woman's abdomen. A good time for this is while you are explaining what you are going to do. | • This action gives the woman an opportunity to adjust and become used to your touching her. Since this is not uncomfortable to her, it gives her initial muscle-tightening reaction to being touched time to dissipate. |

| Preparatory and General Procedures | Reasons |
|---|---|
| - a. Use the flat palmar surface of your fingers for palpating - not your fingertips.<br>b. Keep the fingers of your hands together.<br>c. Apply smooth deep pressure as firm as is necessary to obtain accurate findings. | |

**Inspection**

| Observations | Significance |
|---|---|
| - A longitudinal ovoid; fundal height as expected for gestational age. | • Indicative of a longitudinal lie. |
| - A transverse ovoid; fundal height lower than expected for gestational age. | • Indicative of a transverse lie. |
| - Long smooth curve prominent on one side of the abdomen. | • Indicates that the fetal back is on that side of the abdomen. |

| PROCEDURE | FINDINGS | SIGNIFICANCE |
|---|---|---|
| 1. First step,<br>a. Face the woman's head.<br>b. Place your hands on the sides of the fundus and curve your fingers around the top of the fundus.<br>c. Palpate for shape, size, consistency, and mobility.<br>d. Ask yourself the question: What is in the fundus? | - Fetal part feels round and hard; is easily movable; and can be balloted between the fingers of your two hands or between the thumb and a finger of one hand.<br>- Fetal part feels irregular, larger or bulkier, and less firm than a head. It cannot be well delineated or easily moved or balloted. Neither of the above is felt in the fundus. | • Indicative of a fetal head. The mobility is due to the head's being able to move independently of the trunk. The lie is longitudinal.<br>• Indicative of the fetal breech. The breech cannot move independently of the trunk. The lie is longitudinal. |
| 2. Second step.<br>a. Continue to face the woman's head.<br>b. Place your hands on both sides of the uterus about midway between the symphysis pubis and the fundus.<br>c. Apply pressure with one hand against the uterus, thereby pushing the fetus to the other side of the abdomen and your examining hand, and stabilizing it there. Maintain this pressure. | - A firm, convex, continuously smooth, and resistant mass extending from the breech to the neck.<br>- Small, knobby, irregular masses which move when pressed on or may kick or hit your examining hand. | • Indicative of the fetal back. The location of the back in the left or right side of the woman's abdomen determines the position in a longitudinal lie. The location of the back in the anterior, lateral, or posterior portion of the abdomen determines the variety.<br>• Indicative of the fetal small parts hands, feet knees, elbows. Should be in opposite side of woman than the side the fetal back is in. |

| PROCEDURE | FINDINGS | SIGNIFICANCE |
|---|---|---|
| while your examining hand palpates the other side of the uterus. | | |
| d. Your examining hand palpates the entire area from the abdominal midline to the lateral side and from the symphysis pubis to the fundus. Use firm, smooth pressure and rotary movement. | - Small parts all over the abdomen. The back is difficult to feel as it seems to be just out of reach in the posterior position of the abdomen. | |
| e. Reverse the procedure for examination of the side of the uterus. | | |
| 3. Third step | - Same as for the first maneuver except: | |
| a. Continue to face the woman's head. | | |
| b. It is essential that the woman have her knees bent in order to avoid discomfort during this maneuver. | - The findings are in the lower pole. | |
| c. Grasp the portion of the lower abdomen immediately above the symphysis pubis between the thumb and middle finger of one of you. Be necessary to press gently but firmly into the abdomen in order to feel the presenting | - If the presenting part is the head, it may not be readily movable as will be the situation if the head is engaged. If the head is above the pelvic brim, it is readily movable and ballottable, as described for the first maneuver if it were instead in. The findings from the first and third | |

| PROCEDURE | FINDINGS | SIGNIFICANCE |
|---|---|---|
| part below and between your thumb and finger. | must be compared and final determination made of the lie and presentation. Both of your fingers will encounter simultaneously a hard round mass which is equally prominent on both sides. | • Indicates fingers are feeling the sinciput and the occiput at the same time. |
| e. In a breech presentation, or in a head presentation after you have palpated the cephalic prominence, your hands continue their movement toward the pelvic inlet. At the brim of the true pelvis, your hands will be unable to continue in this direction because the symphysis pubis prevents further movement. | - At the brim of the pelvis your hands will either:<br>- Converge around the presenting part with the finger tips of your two hands touching in the abdominal midline. If the presenting part is the head it will be readily movable. If the presenting part is the breech it will have a feeling of give along with the trunk of the fetus.<br>- Diverge away from the presenting part and the abdominal midline. There will be no give or mobility of the presenting part. | • The presenting part is not engaged. Rather, it is floating at or above the pelvic inlet as determined by being at or above the symphysis pubis.<br>• This presenting is either engaged or dipping. Dipping is when the presenting part has entered the pelvic inlet but has not yet descended to the point of engagement. If you are unable to feel the cepholic prominence because it is out of reach in the pelvis, the head is engaged. |

### Measuring the fundus height

Until about the sixth month, the height of the fundus on the abdominal wall provides a rough estimate of the duration of pregnancy. The anteverted fundus is palpable just above the symphysis at 12 weeks; halfway between the symphysis and the umbilicus at 16 weeks; and at the umbilicus at 20-22 weeks. Put the zero point at the tape at the symphysis pubis and measure uterus the end of the fundus.

### Auscultation of Fetal Heart Sound

Finally, the fetal heart sounds are listened to either with a Pinard fetal stethoscope or with a Doppler. Fetal heart sounds are usually heard at a point over the fetal back, but it is not unusual to hear them at more than one point. In such cases, the stethoscope or Doppler should be moved round until the point of maximum intensity is reached. It can be heard after the 5th month with a fetal stethoscope or as early as 3 months with a doppler. It is regular and rapid. Normally it is between 120-160 beats per minutes, but 140 beats per minute is the average. The fetal heart sound (FHS) can tell us more about the well-being of the fetus in-utero. The fetal heart sounds should not be confused with the uterine souffles, which are the same as the maternal pulse.

Inspection:

### Breast inspection

- Inspection for redness or inflamination
- Inspection of the nipple for invension.
- Polpotion of the breasts for lumps.
- Polpotion of auxiliary lumps.

### Inspection of the lower extremities for edema

At visits later in pregnancy the MCHO should ask the woman if she has noticed any swelling. Often the woman has noticed that her rings feel tighter and her ankles are swollen. The MCHO should test for pitting oedema in the lower limbs by applying finger-tip pressure for 10 seconds over the tibial bone. If pitting oedema is present a depression will remain when she removes her finger. Pitting oedema that reaches the knee should be reported to the obstetrician.

## 9. Pelvic examination

As a general guideline, MCHO should measure all pregnant women who:

- Are having their first babies.
- Have history of difficult labors or of stillbirths in previous pregnancies.
- Are unusually short stature.
- Have any deformity of back, hips, or legs.
- Have any sign of rickets or osteomalacia.

**Measurements**

For information regarding the distance from back to front of the pelvis, the diameters can be measured internally and externally.

Internal measurement: is the diagonal conjugate and is taken from the lower border of the symphysis to the promontory of the sacrum. The normal measurement is 12-13,3 cm. This measurement is usually done in the eight month of pregnancy when it causes less discomfort.

Techniques:

The woman empties her bladder, then lies on her back with knees drown up. Drape thighs with clean towels or a sheet. Wash the vulva with soap and water.

Scrub hands thoroughly then put on sterile rubber gloves. If gloves are not available, place hands in a 5% solution of dettol (or other suitable antiseptic) for a few minutes. Smear two fingers at the same hand with an obstetric cream or other sterile lubricant. Insert fingers into vagina and try to reach the part of the spine which is jutting forward (the promontory of sacrum). When the tip of the middle finger is touching this spot, place the other index finger on part of the inserted index finger which is touching the pubic bone (see fig.).

Remove finger with a ruler or pelvimeter measure the distance between the tip of the middle finger and the marked place on the left forefinger. Subtract 3/4" for the correct measurement.

External Measurement: is the external conjugate. This is the distance between the upper front border of the symphysis pubis and just under the lip of the spin of the 5th lumber vertebra. The average measurement is 19 to 20.3 cm. To allow for bone, fat, etc 8.8 cm are subtracted.

Technique:

The woman lies on her left side and the measurement is taken with pelvimeter the MCHO needs to be familiar with location of the 5th lumber vertebra which is difficult to find at first.

Distance across the inside of pelvis

The distance across the inside of the pelvis (see fig.) can be estimated internally.

Technique

While the fingers are in the vagina, feel the ischial spines to see it the just out more then usual.

The outlet:

The diameters of outlet (see fig.) can be measure internally and externally.

*Internal measurement:* While removing the fingers after taking the diagonal conjugate, examine the top of the pubic arch to see if it is too narrow. Normally the top of the arch is wide enough to take two fingers.

*External Measurement:* The distance between the ischial tuberosities (see fig.) is 10 cm. This transverse diameter is a very difficult measurement to obtain, but a rough estimate can be got by placing the closed fist between the buttocks, between the ischial tuberosities (see fig.). The MCHO should know the size of her own fist. With practice, she will get to know the feel of a normal diameter.

## The Intercristal and Interspinous Diameters

The other external measurements are the intercristal diameter and interspinous diameter (see fig.). The internal spinous is approximately 27.8 cm. The difference of 1" between the two diameters is normal and shows that the pelvis is probably the right shape. If either of the diameters is shorter then normal by 1.5" or more, the pelvis is small. To measure interspinous diameter, place the end of the pelvimeter on the outer borders of the anterior superior iliac spines (see fig.) and reach the measurements.

To measure the intercristal diameter, place the tips of the pelvimeter about 2.2" behind and than for the interspinous diameter read measurement.

## 10. The fetal skull

The fetal skull contains the delicate brain which may be subjected to great pressure as the head passes through the birth canal. It is large in comparison with the true pelvis and some adaptation between skull and pelvis must take place during labour. The head is the most difficult part of deliver whether it comes first or last.

An understanding of the landmarks and measurements of the fetal skull enables the midwife to recognize normal presentations and positions and to facilitate delivery with the least possible trauma to mother and child. Where malpresentation or disproportion exists she will be able to identify it and alert the medical staff.

### The Diameters of the Fetal Skull

The region of the skull which presents in labour depends on the degree of flexion of the head and the area involved may be related to the diameter of that region. Diameters are straight distances between any two points on the fetal head

1. **Sub-occipita bregmatic (SOB)** is measured from the undersurface of the occiput where it joins the neck, to the center of the anterior fontanelle. It measures 9.5 cm. It is the engaging diameter in a vertex presentation. The head is in complete flexion.

2. **Sub-occipita frontal (SOF)** is measured from the undersurface of the occiput where it joins the neck, to the mid-point of the frontal suture. It measures 10 cm, and distends the perineum during delivery. The head is poorly flexed or deflexed.

3. **Occipita-frontal (OF)** is measured from the occipital protuberance to the mid-point of the frontal suture. It measures 11.4 cm and the head is in a military attitude.

4. **Mento-vertical (MV)** is measured from the chin to the highest point on the vertex. It measures 13 cm and the head is partially extended. This is seen in brow presentation.

5. **Sub-mento-bregmatic (SMB)** is measured from where the chin joins the neck to the bregma. It measures 9.5 cm and the head is partially extended. This is seen in face presentation. (see figure)

**Transverse Diameter**

1. **Biparietal diameter**, 9.5 cm, is the distance between the parietal eminences. It is the greatest transverse diameter.

2. **Bitemporal diameter** is a 8 cm. It is the greatest distance between the temporal bones.

### The Circumferences of the Fetal Head

The greatest circumference of the fetal head is at the plane of the occipita-frontal diameter and measures 34.5 cm.

The smallest circumference is at the plane of the sub-occipita-bregmatic diameter and measures 32 cm. With a normally flexed fetal head, this is the circumference that must transverse the birth canal.

## 11. Vaginal Examination

### Indications

A vaginal examination may be done under the following circumstances:

- When the MCHO is in doubt about labor having started.
- To evaluate the progress of labor (dilatation effacement). When the woman keeps bearing down without any progress.
- When the MCHO wants to be sure that the fetal legs are not extended in a breech presentation.
- When the MCHO has to leave for an emergency or to attend another woman in labor and has to know if the mother can safely be left.
- When a prolapsed cord is likely to occur.

### Contraindications

A vaginal examination is never done in the following circumstances:

- If there is any bleeding.
- If there is any abnormality which is likely to require surgical assistance such as transverse lie.
- When the head is not engaged.

### Material needed

The following materials are needed for the pelvic examination:

- A good light (flashlight or lamp).
- A clean speculum.
- Clean rubber gloves.
- Something for lubrication (vaseline, paraffin or water).
- An examining table or bed.
- A rubber sheet.
- An antiseptic sponge.
- Soap and water.

**Procedure**

The MCHO should first explain to the woman what will be done during the examination. This will help put her at ease. Then the following steps should be taken:

- Was your hands with soap and water.
- Have the woman empty her bladder and remove all clothing from the lower part of the body.
- Have the woman lie on a table or bed.
- Cover her with a sheet.
- Ask her to bend her knees with the legs supported.
- Wipe the external genitalia from the top down with an antiseptic sponge or with soap and water and proceed with the external and internal examinations.

**External examination**

With the left hand, spread the labia apart and observe the genitalia, looking for the following and assessing for normal and abnormal signs:

- Discharge.
- Blood.
- Lacerations.
- Swelling.
- Irritations.
- Growths.

**Internal Examination**

Keeping the labia separated with the left hand, take the lubricated speculum in the right hand and gently insert it into the vagina. Move it into a position which will allow it to open easily and fix the screw so that the open position is maintained.

Arrange the light so that you can see inside the vagina. If the cervix is not visible, adjust the speculum by closing it and changing its position until the cervix becomes visible. Observe the cervix and the interior of the vaginal walls.Unscrew the speculum and allow it to close. Remove it gently and put it in the appropriate place to be soaked and cleaned.

<u>The bimanual examination</u>

The Health MCHO should wash her hands with soap and water, put on clean gloves and put some lubricant on the index and middle finger of the right hand. The lubricated fingers are inserted into the vagina until the cervix is located (it normally feels like the end of the nose).

In the center of the cervix there is a dimple. If the cervix is closed, the examination finger will not enter the dimple. If it is open, the fingertip will go inside the cervix. The examiner should not allow the finger to enter the uterus. The two inserted fingers are then placed under the cervix to keep it in place.

The left hand is placed on the lower abdomen and pressed downward. This locates the uterus between the two hands (bimanual). A normal non-pregnant uterus is about the size of a lemon. Note the size of the uterus.

Move the uterus. Normally, the uterus moves easily without causing pain. Keeping the left hand on the abdomen, move the inside fingers to either side of the cervix. This allows you to feel the sides of the pelvis that contains the fallopian tubes and ovaries.

The Health Technician should note any abnormalities during the bimanual examination such as:

- Tenderness when the uterus is moved.
- Enlargement of the uterus.

Mentally record any abnormalities. Remove the gloves and wash your hands. Have the woman get dressed. Discuss your findings with her and record them.

## 12. Blood tests

The MCHO is familiar with taking blood to find out the hemoglobin count as this is a part of each pre-natal examination.

**Hemoglobin test**

The pregnant woman supplies the fetus with iron, so her blood must be checked regularly to detect signs of anemia so that treatment can be started early.

Normal Range. The hemoglobin count is expected in grams or as a percentage. The normal range is between 12 and 18 grams per 100 c.c. of blood, with an average of 14.8 Gm or 100%.

For woman anything from 80% to 100% is considered within normal limits . Below 12 Gm or 80% shows anemia. If the anemia is severe refer patient to a doctor. If mild treat with ferrous sulfate tablets.

Materials needed:

- Alcohol or spirit.
- Cotton swabs.
- Pricking needle.
- Tulloquis (Haemoglobin test) book.

Tests:

*Sahli Test*

Capillary blood is used. Clean the tip of the finger or the lobe of the ear with soap and water and alcohol. Prick with a sharp needle and suck the blood up with a special pipe tube. Place the blood in a graduated test-tube and add dilute hydrochloride hydrochloric acid. Dilute until the mixture matches the color on the standard chart. When this color is reached, read the height of the column of fluid on the scale on the test-tube.

*Paper test*

Procedure: Dampen a cotton swab with alcohol and rub the upper surface of the thumb of the expectant woman to clean it. Allow a few seconds to dry. Prick the thumb quickly with a needle.

Squeeze the pricked thumb with your fingers and produce a drop of blood. Put the drop of blood on a sheet of Tulloquis paper. Allow it to dry.

Compare the color of this sheet with the respective color on the scale. Read the matching percentage for this person. Record the findings in the proper record.

Discard the used paper in the waste basket.

Inform the individual of the findings.

Put away the supplies and equipment in their usual place.

## 13. Urine testing

Urine testing is a part of each antenatal-examination . Some of the conditions complicating pregnancy which show abnormalities in the urine are pre-eclampsia, eclampsia, inflammation of the bladder and kidneys, diabetes, and some forms of heart disease.

**Collection of specimens**

When collecting urine for testing proceed as follows:

- Provide a clean, dry, urine specimen glass or glass jar. If possible label it with the mother's name.
- Ask mother to make sure specimen is kept separate from faeces.
- If mother has vaginal discharge, ask her to wash area round vulva carefully before collecting specimen.
- Collect 4-6 ounces (5-10 c.c.)
- Test as soon as possible after collecting.

**Equipment**

The equipment required for testing urine is listed below. The paper test is quick, and are particularly convenient for testing in the home.

- 1 Spirit lamp
- 2-4 test -tubes.
- 1 small rack for test-tubes. If the standard wooden rack is not available, a tin box with holes made in the lid can be used
- 1 urinometer
- Red and blue litmus paper or Nitrazine paper strip.

Testing agents:

- Acetic acid
- Fehling's or Benedict's solution
- Albustix paper strip
- Clinitest tablets or Clinistix paper strip
- Acetest tablets.

**Testes**

<u>Albumin</u>

Albumin is present in the urine in pre-eclampsia, eclampsia, kidney disease and some forms of heart disease. It can also be found in urine containing blood or pus.

Test: Fill a test -tube with about 2/3 acid urine and hold the top part over a flame. Bring to the boil, moving the tube constantly to keep glass from cracking. If the urine becomes cloudy add a few drops of acetic acid. Albumin is present if cloudiness does not clear.

If *Albusstix* is used, dip the test end of the stick in the urine and compare with the color chart on the bottle.

Sugar

A trace of sugar in the urine is fairly common in pregnancy and does not necessarily indicate diabetes. In such cases, specimens should be tested at frequent intervals. If sugar persists or becomes more than a trace, the mother should be referred to a doctor.

*Benedict's Test.* Place 1 inch (5 c.c.) of Benedict's Solution in test tube and add 8 drops of urine. Boil two minutes holding the top of the test-tube with fingers or tongs. If sugar is present urine will change as follow:

pale green- a trace of sugar is present.
yellow -sugar +
orange -sugar + +
brick red -sugar + + +

*Fehling's Test.* Fill one test-tube with 1 inch (5.c.c.) of urine and another with 5 c.c. of Fehling's Solution. Boil them, then mix pouring the contents of one test-tube into the other. If sugar present, the color change is the same as in Benedict's test.

*Clinitest.* Place 5 drops of urine in a clean , dry test-tube. Add 10 drops of water and 1 Cliniesttablet. Do not shake. Stand for few seconds before reading. If sugar is present the color change is the same as in Benedict's.

*Clinistix.* Dip the test and of the Clinistix in urine and read against the color chart.

**Cleaning of equipment:**

Wash specimen glasses and test-tubes in hot, soapy water. Rinse and boil for 5 minutes or place in a disinfectant solution for 30 minutes.

**Pregnancy Test**

Equipment

Gonarislide
(diagnostic Reagent for pregnancy)

Testing agent

One seat of pregnancy test is content of 50 test that is listed below.

| | |
|---|---|
| Latex suspension | (1,7ml) I bottle. |
| Buffer solution | (1,7ml) I bottle. |
| Disposable pipette with filters | 50 pieces. |
| Rubber Bulb 2 pieces | |
| Disposable stirring Rod | (30 pcs in a bag) 2 bags. |
| Dropper | 2 pieces |
| Test slide | optional |

Procedure

1. Cover the ruber with bulb.
2. Collect the urine.
3. Seperat the filter from the pipettes tap.
4. Pour two drop of urine on the slid (keep the pipette vertically).
5. Add one drop of Buffer (keep the pipette diagonally).
6. Pour one drop of latex liquid and shake it before use.
7. Shake it for three minutes until reaction.
   (Agglutionation positive)

## 14. Identification of mothers at "HIGH RISK"

- Age under 16, over 38 years.
  - Short women (under 150 cm).
- Multi-parus women (>5).
- History of previous complicated pregnancies (miscarriages), labor or post-natal period.
- History of previous complicated labor (c.s. stillbirth, setentional placenta.
- Toxaemia of pregnancy (pre eclampsia and eclampsia).
  - Anaemic women.
- Excessive vomiting.
- Swelling of body.
- High blood pressure.
- Bleeding in early pregnancy.
- Abnormal presentations, twin pregnancy.
- Infectious diseases: TB, Rubella, heart disease, diabetes.

## 15. Records Findings

All findings should be writen carefully at the patient's chart.

## III- CHECKLISTS

Skill Evaluation Sheet
MCHO Students

Activity: Jaking Radial Pulse
Time Allowed: 5 minutes

Name of Student:_____
Time Started:_____
Time Ended:_____

| S.No | Activity | Total Marks | Marks Obtained | Remark |
|---|---|---|---|---|
| 1 | Explained procedure to patient. | 5 | | |
| 2 | Located the radial pulse site. | 5 | | |
| 3 | Positioned arm along with body, wrist slighlty fliexed. | 5 | | |
| 4 | Placed three middle fingertips over fadial pulse site. | 5 | | |
| 5 | Counted the pulse for one minute. | 5 | | |
| 6 | Recorded the results on a pieces of paper correctly. | 5 | | |

Name of evaluator:_____ Signature:_____
Date:_____

Oral Examination Sheet

Activity: Measuring Radial Pulse
Time Allowed: 5 minutes

Name of Student:_____

| No. | Activity | Total Marks | Marks Obtained | Memarks |
|---|---|---|---|---|
| 1 | Explained why wrist must be slightly flexed. | 5 | | |
| 2 | Explained why three fingers are to be used and not thumb over the pulse. | 5 | | |
| 3 | Explained what is range of normal pulse for adult. | 5 | | |
| 4 | Explained the other areas where pulse can be taken/Range of babies pulse. | 5 | | |

HOW TO TAKE RESPIRATION

PERFORMANCE CHECKLIST

| Performance Standards | Score | Marks Obtained | Remarks |
|---|---|---|---|
| Took respirations without patient's awareness. | 5 | | |
| Is able to state why respirations should be taken without patient's awareness. | 2 | | |
| Observed the rise and fall of patient's chest. | 5 | | |
| Counted the number of respirations per minute. | 5 | | |
| The measurement was within +1 respiration of the evaluator's measurement. | 5 | | |
| Is able to state what makes up one respiration. | 5 | | |
| Correctly recorded results in patient's chart. | 5 | | |
| Completed the procedure within 5 minutes. | 5 | | |

# IV- ANTENATAL HEALTH EDUCATION

## 1. Nutrition

To retain a good health, an adequate amount of a well balanced diet should be taken. In pregnant women taking an adequate amount of proper food is of great significance for the normal growth of the foetus, retaining of the general health condition of the mother and prevention of complications before and during labour.

The diet of a pregnant mother should contain the right amounts of different nutrients. Both gaining and losing too much weight predispore to eclampsia. While lack of proteins and minerals cause some abnormal signs and symptoms such as anemia, myalgia, exhaustion etc. This may have a negative impact on the foetus and result in prematurity, anemia, soltening of the bones and teeth.

### Normal diet in pregnancy

Required amount of food for an expectant women depends on her general and health status in early pregnancy. A mother who weighs more than normal should adjust her food intake to her weight. A normal mother should continue on her previous diet plus a little extra food.

### What to eat?

The daily food taken should contain the proper amounts of body building foods (such as meat, fish, poultry, milk, beans, egg.), energy foods (bread, rice etc.), fots (oils, butter, etc), fruits and vegetables.

### Nutritional changes and adjustments during pregnancy

- The mother should eat more protein food and less fats and starchy foods.
- The daily food should contain milk, egg, fish, meat, poultry, fruits, vegetables especially green leafy vegetables.
- If ecomic problems exist, half of the protein could be derived from grains and cereals.
- If due to any reason meat cannot be taken, the daily food should contain more than two kinds of protein derived from beans, peas, etc as well as mild and egg.
- Fats such as ghee and butter, and starchy foods should be taken only in small amounts. Fried and spicy foods should be strictly avoided.
- Less salt and salty meals should be consumed. People who sweat very much, because of heavy work or hot climate may take rather more salt.
- Plenty of liquids should be taken. Liquids may be taken in the form of water, fruit juice, tea, coffee etc.
- To prevent constipation more celluloids should be taken.
- The daily amount of food can be divided into six meals (instead of three). This will help prevent heart burn, maldigestion, and morning sickness.

**Nutritional requirements and their sources**

proteins:

Proteins help the foetus grow normally and the sources of:

*a- Animal protein:* Meat, fish, poultry, milk, egg, liver, kidney.
*b- Plant protein:* Grains, peas, ground nut. At least half of the protein taken daily should be animal proteins.

Calcium:

It forms the dense hard material of the bone and teeth. Besides helps lactation.

Sources: Milk has the first place. Other sources include yolk, fish, turnip, green leaves of beetroot, carrot, fig, wheat flour, nuts, almond, some grains.

Iron:

Iron helps prevent anemia. It should be taken a little bit more than the amount needed, so that the foetus can store some for her/his first few months of life after birth. This is important as milk is pour in Iron.

Sources: Liver, kidney, yolk, fish, dry fruit, nuts, green leafy vegetables, porridge.

Vitamins:

The food which consists of the above mentioned nutrients naturally furnishes the required amounts of vitamins to the body.

*Vit A.*

Helps protect against infections.

Sources: Mild, yolk, carrot, tomatoes, liver, beetroot, turnip and vit A+D cupsules.

*Vit B.*

In some countries where the polished rice, and starchy and low-protien foods forms the staple dies vitamin B is of great importance.

Vit B deficiency causes myalgia, tingling and numbness of the arms and legs, cheilosis (cracking at the angle of mouth.). In areas where these signs are prevalent vit B deficiency should be suspected.

Sources: The outer coats of grain kernels are rich in it.

*Vit C.*

It is important for the growth and normal functioning of bones, teeth and capillariess. Vit C deficiency causes bleeding and poor wound repair.

Sources: Citrus fruits, tomatoe, potato, and green leafy vegetables.

*Vit D.*

It is an essential element for the growth of bones and teeth.

Sources: Milk, meat, fish liver oils, youlk etc. It is also produced in the body on exposure to sunlight. In countries where the purdah is observed and the female are less often exposed to sunlight, the mothers should be emphatically advised to take adequate amounts of vit D orally.

**Special diets**

Diet for mothers who weigh more than normal

If the extra weight is related to the nutrition, the mother should be advised to:

- Quit eating potatoes, bread, cake and other kinds of foods made of flour.
- Take less edible oil, butter and margarine.
- Avoid eating fried and creamy food as well as spicy foods.
- Eat soft-boiled egg.
- Eat roasted meat.
- Drink milk (free from oil and cream). Also vit A+D capsules should be given to her.

Diet for mothers who weigh less than normal

A mother whose weight is obviously low, should be advised to start taking extra food as soon as the pregnancy begins, as it is better to put on weight slowly and gradually than to gain much weight rapidly and suddenly in the last few months of pregnancy. Generally, the amount of food should be increased. Vitamins may also be prescribed by a doctor.

*Low-Sodium diet:*

This kind of diet is taken in order to prevent or reduce edema (swelling). Mothers should be advised as follows:

- Avoid salty foods such as preserved meat, canned meat, dried salty fish, salty butter, salty nuts (i.e. pistachio, almond, walnut, kernel etc.)
- Eat fresh meat and fish.
- Reduce the amount of milk to a pint.
- Use little or no salt in cooking.
- Use no salt while having meals.

*Diet rich in protien (Protein diet):*

This is a special diet for patients with pre-eclampsia, especially if albumin urea exists. Mothers should be advised to take more protein food.

Diet for patients with Iron deficiency (Anemia): Generally, when the signs of anemia appear, medicine such as ferrous sulphate is given to the mother. However, more importance is still attached to what the mother eats. The mother should be advised to take the following:

- An egg daily.
- Dark leafy vegetables such as turnip etc.
- Dry fruit such as raisin.
- Meat, liver, fish.
- Unpealed boiled potato.

Using the basic food groups and the Afghan eating habits, you need to develop daily requirements for individuals.

MCHO needs to be knowledgeable and skillful in utilizing the following factors in helping the family meet their nutritional needs:

- Social customs.
- Family habits.
- Family's knowledge of nutrition (what they know as well as do not know)
- Foods that are available
- Foods that the family can afford.
- Family members likes and dislikes.
- Possible nutritional needs of the family.
- Family's food intake.

## A quick guide to sources of nutrients

This is a rough guide to the nutrient content of foods. However, all foods are mixtures of nutrients and only foods providing significant amount of a nutrient are listed.

| | | |
|---|---|---|
| Foods providing energy<br><br>Maize<br>Maizemeal<br>Bread<br>Biscuits<br>Rice<br>Wheat flour<br>Cassava<br>Potatoes<br>Yams<br>Breadfruit<br>Cocoyam<br>Bananas, plantains<br>Avocado (pear)<br>Oils and fats<br>Groundnuts<br>Beans, cowpeas<br>Coconuts<br>Sugar and sugar products | Foods providing calcium<br><br>Milk, cheeses, yogurt<br>Groundnuts<br>Dark green leafy vegetables<br>Beans, cowpeas<br>Small fish eaten whole | Foods providing Vitamin A<br><br>Dark green leafy vegetables<br>Mango, guava, pawpaw<br>Carrots<br>Avocado (pear)<br>Butter<br>Margarine<br>Eggs, whole milk |
| Foods providing Iron<br><br>Liver<br>Kidney<br>Heart<br>Groundnuts<br>Beans, cowpeas<br>Meat<br>Dark green leafy vegetables<br>Dried fruit<br>Fortified cereals | SOURCES OF NUTRIENTS<br><br>Foods providing Vitamin B<br><br>Dark green leafy vegetables<br>Groundnuts<br>Beans, cowpeas<br>Cereals (especially wholemeal)<br>Meat, fish<br>Eggs<br>Milk | Foods providing Vitamin C<br><br>Fresh fruits and vegetables<br><br>Foods Rich in Protein<br><br>Meat, all types<br>Fish, all types<br>Groundnuts<br>Beans, cowpeas<br>Eggs<br>Milk, all types<br>Cheese<br>Yoghurt<br>Poultry (chicken) |

## 2. Activity

Activity here refers to the serious tasks a woman routinely engages in. Rest refers to being free of activity as well as getting sleep. Most pregnant women are able to carry out their routine activities throughout their pregnancy in the same way as usual or with some modification. By resting between activities or by changing activities rest is obtained. For some women however, it becomes very difficult to cook or to clean or to wash.

Some women seem to require more rest while others are full of energy during pregnancy. This variation is normal within moderation. If the need for extra rest increases greatly or if the woman is so full of energy that she does not get her usual amount of sleep and rest she may need to be referred to a Medical Officer. It is important for a woman to maintain her usual activity for a healthy pregnancy. Activity also means a certain amount of exercise.

In different groups, certain activities are tabooed while other activities are followed. You need to find out which activities are taboo and which are customary. From the list you obtain evaluate the nature of the activities and how they affect the pregnancy. You can then encourage or discourage those practices.

## 3. Personal hygiene

During pregnancy physiological changes of all kinds occur in almost all body systems resulting in the need to pay more attention to personal hygiene. For instance the pregnant woman may experience and increase in perspiration, vaginal discharge or secretion of fluid from the breast. Some women develop a vaginal yeast infection during pregnancy. Because of these changes it is important to bathe daily, paying special attention during washing to the breasts and perineal area.

Regular washing bathing and, if possible, frequent change of clothing will not only make the pregnant woman feel good but will also reduce chance of infection. Washing the feet before going to bed may also be soothing and relaxing.

## 4. Health services

There are many changes taking places in a woman and the developing baby during pregnancy which cannon be seen. If these changes are normal, there is no reason to worry. If abnormal or undesirable changes occur they could result in complications for the mother and/or the baby. In order to minimize or prevent any complications, abnormal changes should be identified early. It is important to provide continuous health service throughout the pregnancy labour and delivery periods.

The female MCHO therefore should monitor the health status of all pregnant women. She handles all cases which seem to be progressing normally and refers all cases presenting abnormal signs to the Medical Officer. Record keeping helps the MCHO keep track of each woman's health complications. those women need to be followed more closely and referred to a Medical Officer so they can be managed early in the pregnancy. The curriculum emphasizes the need for MCHO to know what normal health is so that they strengths. It is within the MCHO's domain to help individuals to proceed on a normal course. When problems are detected, their main responsibility lies in referring that person for a medical diagnosis.

## 5. Discomforts

All women experience some kind of discomfort during pregnancy. Discomforts in moderation are normal and expected. Expectant women should learn to adjust to them. These discomforts are usually temporary. If the discomforts become intolerable last longer than expected or show signs of adversely affecting the mother's health, a referral to the Medical Officer must be made. Abnormal discomforts may develop into complications.

# Chapter V

# NORMAL LABOR AND DELIVERY

# I- HOW TO ASSESS THE START OF LABOR

Before the onset of the real pain, a mother may have iregualr mild pains for a few days.

## Pseudo pain (False pain):

- Iregular and painless contractions.
- Even in the presence of intensive contractions, uterine fundus can easily be palpated.
- No or mild lumbago. (Low-back pain).
- Servix is not shortening longitudinally.
- Absence of show.
- The pain is relieved with enema.

## The real pain

The pains in first stage of labor last 12 hours in the first pregnancy (Primipara), but often less after many pregnancies (Multi para).

The real pains can be distinguished as follow:

- A woman on her first pregnancy (primipara) may, 1-2 weeks prior to parturition, feel the fetus in her abdomen descending through the pelvic brim while it occurs just before or during parturition in a multipara.
- On the onset of labor mother may have pain in the lower part of her either waist or abdomen, or both.
- In the early part of labor, the contractions (pains) may occur once every hour and last just a few seconds. As labor progresses, the contractions finally appear as often as once every 5 minutes and last 30 seconds.
- A pink mucous discharge, called 'show' can be viewed.
- As the cervix shortens longittudinally, its outlet dilates.
- As the membrane rupture, the mother feels some water flowing or trickling. It might not rupture until the second stage of labor, however.
- At the climax of pain and contractions the uterus is excited and its fundus hardly palpable.

# II- MATERIALS NEEDED FOR DELIVERY

## 1. Delivery Kit

A delivery kit and a prenatal kit (already mentioned) are more or less of the same kind and size.

| Items in kit | Use of each item |
|---|---|
| Lab-Coat, mask and hat | To prevent transmission of micro organisms to women and newborn baby. |
| Plastic or waterproof apron | To prevent transmission of micro organisms to mother and newborn baby. |
| A pair of rubbery gloves | Used for vaginal examination whenever needed. |
| Sterile cotton wool balls | For cleaning of cord. |
| Sterile pieces of gauze | For cleaning eyes, nose, cord and mouth. |
| Five small cloth pieces | For use as perineal pads and to check flow of bleeding. |
| Plastic sheet | To be placed under the women just before delivery. |
| O.R.S | For demonstration how to use O.R.S. |
| One liter metal pot | For measuring of water. |
| One spoon | For measuring salt and sugar. |
| One glass | For demonstrating how to make O.R.S. |
| Clamps for umbilical cord. If clamp is not available boild cotton threads can substitute it. | For 3 knots in the cor. |
| Two pots for solutions | To put solution in it. |
| Two special catheter for females | For catheterization if needed. |
| A dressing forceps | To hold gauze or other things with. |

| Items in kit | Use of each item |
|---|---|
| Scissors or new razor blade | To cut the cord. |
| A mucus sucker | To suck mucus and other liquids with. |
| A thermometer | To determine the temperature of the woman. |
| Dettol or any other antiseptic solution | To clean the perineum or otehr parts of the mother's body. |
| Antiseptic Lubricants | To lubricate hands with. |
| Silver nitrate eye drop or Tetracycline eye ointment | To prevent the eyes of new born baby from neonatal gonococcal conjunctivite. |
| Drugs: for example Ergometrine | To prevent bleeding after delivery. |
| Syringe (1-2cc) and needles | For injection of medicine. |
| Soap, nail-brush and nail cutter | To cut nails wash and brush hands. |

## 2. Materials needed at home

Mother should be asked to prepare the followings:

- Two bed-sheets.
- One piece of cloth for covering the legs.
- Two towels to be put under her buttocks, one during labor and the other in the third stage of labor.
- One towel for warpping the new-born in.
- Cotton wool balls or pieces of gauze.
- A glass or cup for measuring the amount of lost blood.
- A pot for washing the hands.
- A pot for boiling the instruments in.
- A kettle for boiling water.
- A cradle or a safe and clean place for the baby.

# III- THE STAGES OF LABOR AND THEIR DURATIONS

Labor and childbirth are natural processes in which the fetus, placenta and membranes are expelled from the uterus. Though a continuous process, labor is divided into three stages for descriptive purposes. Certain changes occur in the uterus, distinguishing one stage from the other. The MCHO must be aware of the changes at each stage and be ready to take necessary action and to refer if necessary.

## 1. The First Stage of labor

The first stage of labor is the period from the onset of regular uterine contractions to full dilation of the cervical os, or when the cervical opening is 10 cm wide. The contractions at first are short, far apart and not painful. The frequency, lenght and strenght of the contractions increases with the progression of labor and they become painful tOwards the end. This stage lasts 12-14 hours in a primipara and 6-12 hours in a multipara.

### Characteristics

The first stage of albour is characterised by:

- Painful uterine contractions.
- Progressive dilation and effeciment of the cervix.
- Formation of the forewaters.
- Rupture of the membranes.

**Role of MCHO**

In the first stage of labor MCHO should do the followings:

1. After getting to the mother's house or when the women comes to the MCHO post, MCHO should ask her the following questions.

   - When did the pains start?
   - How often do they happen?
   - Have you seen the show?
   - Did the water (fluid) flow suddenly in a large amount or it is trickling?

2. Check for vital signs. The mother's temperature respiratory rate and BP should be taken. (See chapter IV Antenal Care).

3. Abdolminal examinations. (Leopld manoevra)

4. The fetal heart sounds should be frequently checked, (Normal heart beats is 100-120/minutes).

5. Vaginal Examination:

Vaginal examination is done to assess the progress of labors remember never do vaginal examination when there is bleeding. While inserting the fingers into the vagina the followings should be assessed:

- State of cervix.
- State of amniotic memberane.
- The presenting part.

1. The state of cervix (dilatation and effeciment).

The cervix in early labor, when it is long with its opening closed, can easily be palpated. If the cervix has lost its length and its opening is dilating, it means that the first stage of labor has begun.

The dilatation is measured by fingers as follwos:

| | | | | | |
|---|---|---|---|---|---|
| One finger | = | 0.5 | inches or | 1.25 | centimeters. |
| Two finger | = | 1.25 | inches or | 2.5 | centimeters. |
| Three finger | = | 1.75 | inches or | 4.5 | centimeters. |
| Four finger | = | 2.75 | inches or | 5.5 | centimeters. |

If the cervix is fully dilated and unpalpable, it means that the second stage of labor has begun. The cervix dilates more rapidly in the second half of labor than it does in the first half.

## 2. The state of the Membrance

To know whether or not the membranes has ruptured, it should be examined by palpation. Little amount of fluid in the membranes makes it difficult to distinguish whether the palpabl object is the fetal head or amniotic sack. In this case the membrane will contract while being palpated (touched).

3. The presenting part

In general MCHO can distinguish the presenting part (head or breech) through abdominal examination. Sometimes it is hard to distinguish the presenting part though just abdominal examination in a fat women, If the presenting part is fully fixed and the servical dilation is, at least, two fingers (2.5 cm), it can be palpated. By palpaling the skull bones, fontanils and sutura it is not difficult to distinguish a vertex presentation and differentiate it from a breech presentation.

6. Check the contractions for regularity, frequency and strength.

7. If time permits (i.e. mother is in her first stage of labor). She should be allowed to take a little walk, but do not make her exhausted.

8. Perineum should be shaven and cleaned.

9. The mother should be asked to relax between two onsets of contractions.

10. A light and simple meal at the begginning of labor and small amounts of syrup or sugary tea during a labor should be given to the mother.

11. Bladder should be emptied. If she has difficulty urinating try to stimulate her willingness to urinate indirectly. That is to make a splash of water through turning on a tap or pouring some water from one pot to the other noisily so that she can hear it. Pouring some warm water on the vulva is another alternative. If non of them worked then try catheterization as a last alternative.

12. Vulva and perineum should be kept clean by washing.

13. Instruments should be boiled and cooled.

14. During labor, the mother should not be left alone.

## 2. The second stage

The second stage of labor lasts from full dilation of the cervical os to the complete expulsion of the fetus. It lasts about one hour in a primigravida and 5-30 minutes in a multigravida. Strong uterine contractions, descent of the head through the pelvis and the birth of the baby are the features of the second stage of labor.

### Role of MCHO

While the mother and her uterine contractions are straining downward, the MCHO should stay with her and do the following:

1. Advise the mother to hold her ankles or thighs or a piece of cloth, whose other end is tied fastened round the bedleg. Then ask her to concentrate and direct her strains downward to expel the fetus.

2. Assist her to relax in the time between two contraction periods.

3. Frequent auscultation of fetal heart sound.

4. An hour before the estimated labor, bladder should be emptied. If she has difficulty urinating and her abdomen is expanded, urethral catheter should be inserted.

5. Inspect for fetal head appearance. While inspecting vagina avoid speaking and breathing toward it. Put on mask to prevent sending infections to vagina through air droplets. Masks should be changed repeatedly.

6. If the membranes has not ruptured, it should be ruptured by artery forceps as soon as it appears through rulva.

When fetal skull appears through vulva the fetus should be led to birth through the technique, MCHO has already learned.

## 3. The third stage

This stage of labor cover the period immediately following the delivery of the baby until the delivery of the placenta and membranes usually within 5-15 minutes after the birth of the baby. The other feoture of the third stage, apart from the detachment and explusion of the placenta is the control of bleeding.

Once the head is born check if the cord is not around the neck, if the cord is around the neck gently put it over.

1. Examining umbilical cord to make sure that it is free.

2. Try to prevent lacerations and ruptures, by supporting the perineum.

3. Once the fetal head is expelled, his/her both closed eyes should individually, be cleaned (use two sterile cotton balls).

4. The new-born's respiratory tract should be kept open (Use mucus-sucker whenever necessary).

5. Umbilical cord should be, carefully, tied and cut off.

- Procedure:

Demonstrate how to cut the cord,

- Do the special hand-washing.
- Wait until the cord goes white and thin and stops pulsating.
- Take clamps and put at this distance from the baby.

  1st: 2 fingers width
  2nd: 4 fingers width

- Pick up sterile blade, do not touch the cutting edge.
- Cut the cord between the first and second clamp.
- The uterine fundus should not be pressed until the expulsion of placents. The separation of placenta, usually, lasts 10-20 minutes.

The following are signs of separation of placenta.

- Umbilical cord lengthen and loosens through vulva.
- Approximately 2-3 ounce blood flows (about half a cup).
- The uterine fundus stiffens and seends upto the navel level.
- A mobile uterus can be felt through a gentle palpation.
- Placenta is seen through vulva.

**Role of MCHO**

- By a close examination of placenta, make sure that its membrane and surfaces are complete.
- Check for bleeding.

# IV. IMMEDIATE CARE OF NEWBORN BABY

## 1. Apgar Score

This is used to evaluate the physical status of the infant at one minute after delivery and to estimate andy improvement in the subsequent few minutes (usually five minutes). An infant who has an apgar score of 10 is said to be in an ideal physical state. The lower the score the worse the condition of the baby and the greater the urgency of resuscitation.

Apgar Scoring Method for Evaluating the Infant

| Sign | Score 0 | Score 1 | Score 2 |
|---|---|---|---|
| Heart Rate | Absent | Less than 100 | More than 100 |
| Respiratory effort | Absent | Slow, Irregular | Good crying |
| Muscle tone | Limp | Some limb flexion | Active |
| Response to stimulus (nasal catheter) | nil | Grimace | Vigorous cry |
| Color | Blue,pale | Body pinkish, limb blue | Pinkish |

## 2. Respiratory System

Once a baby is born, first of all, the function of respiratory system should be focused on. All other issues can be considered secondly. A variety of opinions are given with respect to "How to operate a new-born respiratory system". The followings are general guidelines in this regard:

- If the baby starts crying immediately after birth and his/her respiratory tract is open and clear, her/his eyes should be gently wiped, and the umbilical cord should be cut off. Then, he/she should be warpped in a warm blanket and laid in a safe place until the end of third stage of labor.

- If the baby does no start crying immediately after birth and his/her skin has turned pink, hang him/her upside down for a while. If it failed to work, position him/her on his/her back and use mucus sucker.

- If the baby is silent, faded and feeble, sh/she is suffering asphyxia. Treat him/her very carefully. Position him/her on him/her back, with his/her legs stretched. Then use the mucus sucker.

- Artificial mouth-to-mouth respiration (if the mucus sucker did not work). That is, position the baby on his/her back, with his/her ahead extended backward. Then, place your mouth on his/her mouth and nose, and take shallow breaths at a rate of 20 minutes. If oxygen is available, it can be given to the baby by an experienced person.

- If the baby's respiration is shallow and irregular, position him/her on his/her back, lift the head gently and flex it onto the chest and extend it back on the floor. Then, hold thee feet, shake, and move them up and down.

- While fulfilling these actions MCHO should not forget gentleness. The baby should be kept warm. any kind of rought actions such as slapping hard, immersing the baby into the cold or warm water, rubbing, bending the new-born's body and so on should be avoided.

- As soon as the baby's respiratory system starts funcitoning and the cord's pulsation disappears, the umbilical cord should be tied twice (with two separate ties) and, then, cut off at the point between two ties. The baby, then, should be laid in a warm and safe place, ad well taken care of. If a new-born has difficulty breathing a doctor should always be asked for help.

## 3. Examination of the baby

The baby examination can be put off upto 2-3 hours after birth unless there is and emergency or any other reason which requires an immediate treatment. The sequence in this examination should always be the same so that not to forget or miss some points.

The most important points to be assessed are:

- Skull: The size of fontanils, structure of skull, and depression and bulgings should be inspected.
- Weight and length: Normal weight is between 2.5-3.5 kg and normal lenght is 45-50 sm.
- Vertebral Colomn: Swelling and depression.
- Eyes: Eye drops such as silver nitrate or tetracycline can be used.
- Mouth: Defects of lips and palates.
- Limbs: Quality of mobility and the number of fingers and toes.
- Skin: Skinlesions, color spots etc.
- Anus: Ascertain that the rectum is open by inserting fourth finger or thermometer into it.
- Umbilical Cord: If its leaking, reclamp the cord.

  Examine the umbilical cord to make sure that all three vessels are present.

# Chapter VI

# ABNORMAL LABOR AND DELIVERY

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# I- PREMATURE LABOR

## Definition

Premature labor is defined as the onset of labor after the 28th week and before the 37th week of pregnancy. Babies delivered prematurely are often of low birth weigh, i.e. less than 2,500g, but this is not always the case. Some low birth weight babies are delivered after 37 weeks of pregnancy and are therefore not premature. True premature babies are physiologically immature and cannot survive without special care.

## Causes

There are many causes of premature labor, such as:

- Malaria
- Sever anemia
- Multiple pregnancies

## Management

# II- PREMATURE RUPTURE OF MEMBRANES

## Definition

This is the spontaneous rupture of the membranes before the 36th week of pregnancy. Labor is likely to follow soon afterwards. If labor does not occur for some days after the membranes rupture, bacteria may invade the uterine cavity and cause intrauterine infection of the fetus. There is also the risk of cord prolapse.

## Causes

- Multiple pregnancies
- Poly hydramnios

### Diagnosis

The patient notices the scope of fluid from the vagina.

### Management

- Refer the patient
- Do not do vaginal examination

## III- OBSTRUCTED LABOR

### Definition

Labor is said to be obstructed where there has been no progress neither descent nor dilatation, despite the presence of good uterine contractions. Such obstruction may occur at any level in the pelvis, but is most commonly occurs at the brim.

### Causes

#### Maternal causes

- Contracted pelvis.
- Lack of vit. D.
- Cervical and/or vaginal abnormalities.

#### Fetal Causes

- Cephalo-pelvic disproportion, due to large baby or hydrocephalus.
- Mal presentation of the foetus.

### Management

As soon as the MCHO diagnosis an obstructed labor she should refer the patient as soon as possible.

### Complication

In extreme cases obstructed labor leads to uterine rupture.

# IV- ABNORMAL PRESENTATION AND POSITIONS

## Definition

Malpresentation is when a part other than the head presents (breech, shoulder).

## Types

### Breech

Definition:

In breech presentations the fetus lies with its buttocks in the lower pole of the uterus.(Breech is not normally classed amongst abnormal deliveries, but classed amongst pathological deliveries because of the danger of last minute complications - cord prolapse, retention of aftercoming head, etc);

Management:

Refer the patient to the hospital.

## Brow Presentation

Definition:

Brow presentation is a cephalic presentation in which the fetal head is extended to the second degree, the brow becomes the presenting part, thus making a 'brow presentation'. It is a transitory presentation between the face and the bregma. It is very rare (0.02%), i.e. 2 cases in 1,000 deliveries.

Management: Refer the patient to the hospital.

## Transverse Lie and Shoulder Presentation

Definition:

Anatomically, a transverse lie can be defined as a lie in which the long axis of the fetus is across that of the uterus with the shoulder usually presenting. Clinically, it is a presentation in which neither the head nor the breech is seen under the symphysis pubis.

It is rare, but more often seen than face or brow presentations. There are about 5 cases in 1,000 deliveries. This presentation is highly dystonic and incompatible to vaginal delivery.

Management: Refer the patient to the hospital.

### Face presentation

Definition:

When the head is sharply extended so that the occiput of the fetus is in contact with its spine, the face will present at the pelvic brim. In face presentation, the engaging diameter is the submento-bregmatic of 9.5 cm, which corresponds to a circumference of 32 cm. In spite of this small diameter, descent of the head may be difficult and progress of labor retarded by the extreme extension of the head and the fact that the bones of the face do not mould.

Management:

Refer the patient to the hospital.

## V- RUPTURE OF THE UTERUS

### Defenition

A rupture of the uterus occurs when the uterus splits during labor. this unusual but serious complication may occur when the woman has had a cesarean section. The healed scar tissue may be too weak. A ruptured uterus may also occur during and obstructed labor or during hard massage of the uterus during labor.

### Causes

Excessive or use of oxytocic drugs can cause hypertonic uterine action resulting in uterine rupture.

## Diagnosis

### a. Presenting complaint

A woman in labor suddenly no longer feels pain. Her strong contractions stop.

### b. Medical history

She may feel as something gave way during a strong, hard contraction. She may also feel faint. She may be unconscious and in deep shock.

### c. Physical examination

Strong contractions suddenly stop. Signs of fetal distress are present. The fetal heart rate increases for a time, decreases, and then stops. The woman will go into shock. Her blood pressure will fall. She will have clammy, cold skin. Shock may progress to coma.

## Complications

Severe abdominal bleeding will lead to death of the fetus and the woman unless an operation is performed.

## Management

Refer the patient as soon as possible.

# VI- PROLONGED LABOR

## Definition

Labor is normally defined as prolonged when its duration exceeds 24 hours. However, in Afghanistan where medical aid is difficult to come by MCHO are advised to regard labor as prolonged if it exceeds 16 hours (especially in multiparous women), because in many cases, 24 hours will have passed by the time the patient arrives at a hospital where medical aid is available.

The usual duration of labor for a primigravida is 4 - 24 hours (average 12 hours) and for a multigravida 2 - 12 hours (average 6 hours). As the duration approaches these limits it is necessary to re-assess the situation carefully, since risks to mother and child will increase with the degree of prolongation.

## Causes

### Weak Uterine Action

Primary: (Hypotonic Uterine Action):

In primary uterine inertia labor has never been well-established and the contractions are shorter, weaker and longer-spaced than normal. They are also less distressing and painful to the mother. It commonly occurs in conditions where the presenting part is poorly applied to the lower uterine segment, e.g. polyhydramnios or where the uterus is inhibited either by a full bladder or rectum.

The condition can be recognized by the weak nature of the contractions, the ability to indent the uterus at the height of a contraction, and the good general condition of both mother and fetus.

Secondary: Uterine Inertia (Uterine Exhaustion):

When previously strong contractions become progressively weaker the likelihood of disproportion must be borne in mind.

### Management

If prolonged labor is due to full rectum or bladder, give an emema or catheterize the patient. In the rest of cases the patient must be referred.

## VII- FETAL DISTRESS

### Definition

Fetal distress occurs when some problem threatens the life of a fetus. For example, the umbilical cord may be pinched between the fetus and the mother's pelvis during delivery. Or the placenta may prematurely separate from the uterus. Both of these problems will decrease or cut off the supply of oxygen to the fetus. Drugs given to the mother may also cause fetal distress.

### Signs

Warning signs usually accompany fetal distress. Monitoring the fetus during labor should give you early notice of any problem. The signs of fetal distress are:

- Irregular fetal heart rate
- Tick, green meconium discharge
- Extreme fetal movement

#### Irregular fetal heart rate

Check the fetal heart rate every thirty minutes during the first stage of labor and every fifteen minutes during the second stage. The fetus is in danger if the fetal heart rate is less than 120 beats per minute or more than 160 beats per minute. Sudden changes in the fetal heart rate may also be a sign of fetal distress. For example, if the fetal heart sounds change from very strong to very weak, suspect fetal distress. Remember to check the fetal heart sound between contractions, not during contractions.

#### Tick, green discharge

When you examine a woman in labor, you should always note any discharge from her vagina. A tick, green discharge called meconium is a sign of fetal distress. The meconium comes from the fetus rectum. The fetus passes the meconium in distress from lack of oxygen.

**Extreme fetal movement**

Extreme fetal movement may mean that the fetus is having fits caused by a lack of oxygen. Normally there is little fetal movement during labor.

### Causes

When any of the signs of fetal distress alert you, immediately determine its cause. The problem may be:

A prolapsed cord.
Separation of the placenta from the uterus.
Maternal distress.
Drugs or medicines given to the mother.
Prolonged labor.

### Complications

If the delivery is not quickly completed or if the problem is not quickly corrected, a fetus in distress may die or suffer brain damage.

### Management

Determine the cause of the fetal distress. Correcting the cause may bring the fetus out of distress. A speedy delivery may prevent damage to the fetus if the cause of the distress cannot be corrected. However, if possible, refer the mother to a hospital for delivery.

## VIII- MATERNAL DISTRESS

### Definition

A woman in labor who suffers a problem that threatens her life and the life of her fetus is in maternal distress. Labor and delivery strains all of a woman's physical and emotional systems. For this reason, monitoring the mother's condition during labor and delivery is as important as monitoring the fetal condition.

### Causes

A prenatal history and examination will help you anticipate maternal distress. For example, you might expect a woman who suffers a heart disease to show signs of distress during labor. Common causes of maternal distress include:

Severe anemia.
Tuberculosis.
Malnutrition.
Heart disease.
Diabetes.
High blood pressure.
Prolonged labor.
Lack of sleep before labor begins.
Severe pain during labor.
Pelvic infection or generalized infection which may occur with the early rupture of membranes.
Diarrhoea.
Vomiting.
Bleeding.

## Signs

Blood pressure of 140/90 and above.
Blood pressure of 90/60 and below.
More than forty respirations per minutes.
Difficulty breathing.
Abnormal breath sounds.
Distended neck veins.
Irregular heart rate.
A pulse that stays above ninety beats per minute or below seventy beats per minute.
Heart murmur.
Temperature higher than 37.5°C.
Vomiting.
Diarrhoea.

## Complications

If the cause of maternal distress is not treated, the problem may lead to death. Late signs of maternal distress include an anxious expression, paleness around the mouth, perspiration on the upper lip, dry mouth, concentrated urine, and dark vomit.

## Management and prevention

### a. Monitoring the woman in labor

Close monitoring of a woman's pulse, blood pressure, and temperature during labor and delivery will detect early signs of maternal distress. Prepare to transfer the woman to a hospital at the first sign of maternal distress.

### b. Identify problems early

Identifying possible problems in a prenatal examination and referring the woman to a hospital for delivery is the most important means of preventing maternal distress. Women with diabetes, heart disease, high blood pressure, anemia, tuberculosis, or malnutrition should deliver at a hospital.

### c. Determine the cause of maternal distress and provide care.

# IX- CORD PROLAPSE

## Defenition

A prolapsed umbilical cord is one that has slipped through the cervix ahead of the presenting part. During uterine contractions and advancement of the presenting part, the prolapsed cord may be squeezed against the pelvic tissues. This squeezing may close off blood flow to the fetus and lead to fetal death.

## Diagnosis

### a. Presenting complaint

A sudden rupture of the bag of waters when the presenting part is not engaged may wash cord out ahead of the presenting part. This may happen in a vertex presentation, a transverse lie, a breech presentation, and a foot or arm presentation. It can happen in a foot or arm presentation because the presenting part is small and the cord can easily slip around it. In a multiple birth, the cord of the second fetus may slip out after the delivery of the first baby.

### b. Physical examination

The fetal heart rate will increase and then decrease as death nears. A vaginal examination will reveal a firm, slippery, pulsating, rope-like mass. If uncorrected, the fetus will die during the delivery.

## Management

You may be able to push the cord back into the uterus during a vaginal examination.

Rapidly transfer the woman to a hospital, if possible. Put the woman on her knees with her head down. This position will take pressure of her pelvis. If you cannot quickly transfer her to a hospital or slip the cord back into the uterus, delivery must continue, but you should expect a dead fetus. Prepare the family for this outcome.

# X- HEAVY BLEEDING

## Definition

Bleeding during labor usually occurs when the placenta separates from the uterus before it should. In some cases, the placenta lies across the cervical opening. When the cervix dilates, it pulls the placenta from the uterine wall. The bleeding is painless, but serious. If the bleeding is caused by premature separation of a normally placed placenta, the bleeding will be very severe and may cause shock. The woman will complain of constant abdominal pain.

## Diagnosis

### a. Presenting complaint

A woman in labor whose placenta has separated will have bright red, vaginal bleeding.

### b. Medical history

The onset of severe bleeding is usually sudden.

### c. Physical examination

Never perform a vaginal examination in a woman who has vaginal bleeding during labor. You may tear the placenta and cause even more bleeding.

Check the woman's vital signs. She may be in shock. The fetal heart tones may or may not be present.

## Complications

Fetal death is common in cases of severe bleeding. Only quick action will prevent maternal death.

## Management

Treat the woman for blood loss. Transfer her as quickly as possible to a hospital.

# XI- MULTIPLE PREGNANCY

## Definition

A multiple pregnancy is one of the 'at risk' pregnancies which should be delivered in hospital because of the many complications which may occur.

## Complications

The first stage usually progresses normally, although severe preeclampsia is common. Most of the problems will arise in the interval between the delivery of the first and subsequent fetuses. These are:

### Uterine inertia

If, after delivery of the first fetus, contractions do not come back within 20 minutes, the patient should be referred.

### Hemorrhage

This indicates some separation of the large placenta. Rupture the membranes of the second fetus and deliver as speedily as possible.

### Prolapsed cord of the second fetus

Carry out a vaginal examination and identify the presenting part.

### Locked Twins

This very rare complication is very dangerous to the fetuses. Both heads enter the pelvic cavity together and further progress is impossible. If the patient is not already in hospital, refer her immediately.

### Prognosis

The likelihood of twins or triplets surviving is influenced by the same general factors as those influencing the survival of a single baby, i.e. the length and quality of uterine life, and the development at birth. The chances of all the babies of a quadruplet or quintuplet pregnancy surviving are rather small.

### Management and prevention

Women with multiple pregnancies discovered during antenatal care should be advised to deliver in a hospital. If not handle as a normal delivery and refer in case of complication.

## XII- RETAINED PLACENTA

### Defenition

After birth, the placenta usually slides out of the mother's uterus without help. However, sometimes it separates from the uterine wall but is not pushed out of the uterus or vagina. In other cases, it remains attached to the uterine wall. A placenta that does not separate from the uterine wall or slide out of the mother's vagina is a retained placenta.

A retained placenta is one that does not deliver within sixty minutes after the delivery of the baby. Bleeding may occur.

### Complications

A placenta retained for several hours without bleeding may lead to intrauterine infection. Bleeding due to a retained placenta may lead to the death of the woman.

### Management

The object is to remove the placenta. Gently and steadily pull on the cord. Support the uterus by placing your left hand on the woman's abdomen.

If this first method is unsuccessful, manual removal may be necessary. Refer her to hospital.

If the placenta is not delivered after half an hour:

- **Get the baby to suck at the breast.**

  This will cause the uterus to contract and push the placenta out. The mother will notice that she has afterpains when the baby sucks at the breast. Afterpains are a sign of the uterus contracting and going hard. They are a good sign. If the baby is too weak to suck, the MCHO should gently pull the mother's nipple just as the baby would pull the nipple if it were sucking.

- **Get the woman pass urine.**

  A full bladder will press on the birth canal and stop the placenta coming out. A full bladder is a common cause of retained placenta.

- **Get woman to squat down.**

  This is the best position for delivering both the baby and the placenta.

If there is bleeding or the placenta does not come out after one hour, the MCHO should refer the women. Some women have a history of retained placenta after each delivery a nd they should be advised to deliver in hospital.

## XIII- INCOMPLETE PLACENTA

The MCHO should check every placenta for missing pieces. She can do this by washing the placenta in a container of water to get rid of the clots and then looking at it in a good light. On a flat surface the lobes will fit together if the placenta is intact. If there is lobe missing from the placenta it means that it is still inside the uterus. This lobe is dangerous and will cause heavy bleeding or a pelvic infection if left in place. An incomplete placenta is a danger sign and the MCHO must refer the woman to the hospital.

# Chapter VII

# NORMAL POST PARTUM

# POSTNATAL CARE

## I. DEFINITION

Postnatal stage lasts, about six weeks, within which the body turns to its normal state.

## II. NUMBER OF POSTNATAL VISITS

For the first twelve days after a labor, an everyday-visiting schedule is the best. But since it is most likely to be impossible, MCHO should try to visit her everyday, at least for the first three days. Then visit her on the sixth, seventh and fourteenth days after labor, and pay her a last visiti after the sixth week (after labor).

If a post-natal clinic exists in the area, the mother can apply there after two weeks, from her labor, for her and her baby's examinations.

## III. CARE OF THE MOTHER

### 1. Vital Signs:

- **Temperature**

Mother's temperature should be taken daily. If it remains 100.4 F (or above) it should be considered serious. A rising temperature is a sign of infection. Therefore, if a rising temperature exists, breasts and lochia should be carefully examined. Moreover, the mother should be asked if she has a pain.

- **Blood Pressure** (Refer to chapter IV)

- **Pulse rate** (Refer to chapter IV)

### 2. Fundus of Uterus

The uterus decreases daily until it can no longer be palpated after about 10 days. The level of the fundus should be checked daily (or on each visit). The day after delivery, it is about one finger breadth below the umbilicus and another finger each succeeding day. It should always be measured after the bladder has been emptied.

The uterus should gradually decrease in size (involute) but may not because of infection or the retention of parts of the placenta or membranes. This should be reported to a doctor.

## 3. Lochia

Lochia (vaginal discharge) is red, for the first three days, and brownish for approximately, next six days after labor. Afterwards, it lessens and turns white.

Normally, Lochia disappears within three weeks. If it continues to exist longer or its color remains red, the cause is probably, the remains of placenta or membrane. Similarly, a smelly lochia is another sign of infection which requires a doctor's advice.

## 4. Perineal Care

The vulval area should be swabbed with warm water. A weak antiseptic may be added. The mother should be taught how to wash the area with a wash cloth or clean piece of cloth, and to be sure to wash around sutures (if present) first, and the anal region last. Cloths may be reused if washed thoroughly, boiled and dried in the sun.

## 5. Lactation

Throughout a woman's pregnancy, her breasts prepare for lactation, the secretion of milk. Her breasts become larger and fuller. Colostrum: a colorless, sticky fluid, is secreted. It contains antibodies that provide special protection for the baby.

After childbirth, a woman's breasts prepare for the secretion of milk. The breasts continue to produce colostrum until about the third day after delivery when milk starts to come. The breasts are harder, fuller, and heavier now. The skin of the breasts becomes tense and the veins appear to be swollen. The mother may feel some discomfort on the day the milk comes in because the blood vessels are congested. After the milk begins to flow, the breasts become softer and more comfortable. The milk is white and rich in sugar.

A mother usually secretes about one half pint of milk a day during the first week of lactation. During the second week, she secretes a pint a day and one to two pints a day for the week thereafter. A calm, relaxed woman who drinks plenty of fluids produces milk most easily.

Human milk is best for a newborn because it contains antibodies that protect the baby from certain infections. Breast milk also contains lactose, a form of sugar. Human milk has more lactose that any other milk. Breast milk also contains fats. The milk fat is easily digested by babies and contains vitamins and minerals babies need.

## 6. Advice to the mother

- **Diet**

If the mother is breast feeding her baby she should continue taking the same food as in her pregnancy. In some communities according to their culture and tradition, mother are forbidden to take a number of dishes before and after delivery.. In these communities MCHO is supposed to convince the mother and her relatives that the mother needs an adequate amount of protein, minerals and vitamins.

Mothers should be encouraged to take plenty of water and other liquids, especially within the first 24 hours after labor. If she has difficulty urinating, try to solve her problem through usual home practices. Avoid catheterization unless very necessary.

- **Rest**

Resting is of a significant importance for mothers. However, usually they get up 24 hours after labor. To prevent exhaustion, adequate rest should be taken everyday. Handling household tasks can be promoted, but very slowly and gradually.

# IV. CARE OF THE NEW-BORN

## 1. Umbilical Cord

Umbilical cord should be kept dry as far as it's possible. It could be kept bare or covered with sterile dressing. (That is a matter of custom). What is important is keeping it clean. Presence of discharge or bad odor should be given an antibiotic. If no improvement, refer to hospital. Generally, umbilical cord dries and separates on the fifth, sixth or seventh day.

## 2. Eyes

· Eye drops such as silver nitrate or tetracycline ointment can be used if not been given yet. Presence of discharges should be reported to the doctor.

## 3. Vital Signs

Temperature, pulse Rate and Respiratory Rate. (TPR) While being born the temperature is a little higher than normal. However, it drops to (37°C=98°F) shortly afterwards. A normal pulse rate is 120-130 per minute and respiratory rate is 40-50 per minute.

## 4. Weight

The baby's weight varies according to race, heredity etc. A baby who weighs less than (4.1 pounds = 2 kgs) is considered premature. Normally a baby loses weight during the first four to six days after birth. However, then he/she should gain weight gradually. If special scales are not available, a spring scale may be used instead. The baby is, first, placed in the middle of the quadrangular piece of cloth. Then, the opposite corners are tied together.

## 5. Skin

The skin of the newborn is normally pinkish or dusky pink in color and may or may not be covered with a sticky substance called vernix. Opinions vary about removing the vernix. It may be removed very gently with a little oil on the second day, or if left, care taken to see that it does not clog and irritate the skin around the groin, armpits and other creases.

The skin should be kept clean. If necessary it may be washed with clear, warm water and patted dry gently. The baby may be immersed in water after the cord has healed.

A slight yellowing of the skin is normal around the third or fourth day (physiological jaundice). It disappears within a week. It should not be confused with the more serious form of jaundice which starts on the first or second day and refer patient to hospital.

### 6. Stools

The first stools the baby passes are blackish in color, but within two or three days these change to yellow. The stools of an artificially-fed baby are lighter in color than those of a breast-fed baby, are more bulky and have an unpleasant smell.

### 7. Feeding

For the first few days, the breasts secrete only colostrum, a thick, colorless fluid. About the third day, milk comes in. The baby should be put to the breast at regular intervals from the time of birth, starting with a few minutes and gradually increasing.

## V. MILD DISORDERS

### V.1 Mild Disorders Of The Mother

#### 1. Post delivery pain.

Some mothers, after labor, feel the same pains and spasms as they do in the menstrual period. To relieve her pain, analgesic. Paracetamol, for instance, may be needed.

#### 2. Constipation

The mother's getting around on the first or second day after labor, according to the up-to-date opinions, plays a great role in eliminating post natal constipation. Mother should take plenty of liquids. The mother's diet may be suspended, if necessary.

### 3. Hemorrhoids

If painful and swollen, apply compresses of magnesium sulphate (epsom salts). Change them frequently. A warm sitz bath and soothing ointments may also be found helpful. An anesthetizing suppository may be used. Avoiding constipation is the best preventive.

### 4. Urinary retention

If the mother is not able to urinate within the first 24 hours after labor, try to help her through making a splashing water flow. For example, turning on the tap, pouring some water from one pot to the other. If they couldn't help, pour some warm water on the vulva. Much water should be given to her. Catheterization, sometimes, may be needed as a last alternative.

### 5. Care of episiotomy

The stitched skin should be kept clean and dry. The mother should also be taught how to wipe her vulva and perineum from front to back, after defecating and how to avoid contamination and infection. To keep the injury dry and clean, alcohol or gentian violet can be locally applied.

Sometimes it will get infected after three to five days. Warm and damp compress relieves this state. analgesic drugs may be needed.

### 6. Swollen Breasts

Sometimes, in the first week after delivery the breasts get swollen. It is of great value to massage the breast gently, before breast feeding the baby and press it with hand a few minutes after the baby starts sucking. After each breast-feeding, the nipples should be dried and an analgesic pomade, e.g. Lanuline, applied to them.

The bra (or any other thing use instead) should be neither too fit nor too loose, to support the breasts.

### 7. Fissures of the nipples

The nipple fissures require and immediate treatment otherwise it will get infected. According to the severeness of the fissure the baby should not be put to the breast for 24-28 hours. Milk the breasts with hand and before giving it to the baby boil the milk. Nipples should be kept clean; Analgesic pomade or gentian violet 1% may be applied to them. Special pomades, for this purpose are available. After restarting breast-feeding, the mother should be advised not to let her baby suck (or hold in mouth) the nipple after falling asleep or when the milking has stopped.

## 8. Lack of breast milk

Most women are able to produce enough milk to feed their babies. A woman usually begins producing enough milk to feed her baby by about the third day after delivery: The amount of milk she produces generally depends on how often she feeds her baby and for how long she feeds him. Her milk supply does not depend on the size of her breasts.

Some women may be afraid they are not producing enough milk to feed their babies. You must determine whether the woman is producing enough milk. If she is not producing enough milk, determine the cause.

### - Clinical Picture

A. Presenting complaint

The women will tell you she is not producing enough milk to feed her baby. She will say her baby always seems hungry and is not satisfied by breast-feeding. When the baby suckles, he easily becomes troubled and he cries even though his suckling seems strong. The baby may be losing weight. The woman may also say her breasts do not feel full sand do not leak milk.

B. Medical history

Ask the woman about how she feeds her baby. She may tell you that she stopped breast-feeding for a time or that her breast-feeding has not been regular. She may say she has been giving her baby additional food.

Ask the woman about drugs or medicines she may be taking. Some drugs like birth control pills, may suppress the production of milk.

C. Examination

Examine the woman's breasts. They will not be tender or full. You will not be able to express any milk from her breast. Also weigh the baby. If the baby has not been getting enough milk, he may not be gaining weight.

D. Management

a. If the woman is taking birth control pills or any other drug that supresses the flow of milk, have her stop. Use another birth control method.

b. Tell the woman to wear warm clothes or to warm her breasts with warm soaks before she starts to breast-feed her baby. The warmth on her breasts will help the flow of milk.

c. Tell the woman to breast-feed her baby every two or three hours. Frequent feeding will increase the amount of milk her breasts produce.

d. Tell the woman to use both her breast when she breast-feed her baby. She should start by breast-feeding for five or ten minutes on each breast, increasing the time to twenty minutes as her nipples toughen.

e. Tell the woman to express the milk that remains in her breasts after her baby has nursed.

E. Prevention

Urge women to begin breast-feeding as soon as possible after delivery. Also, tell women not to give their babies food other than breast milk for four to six months after birth. Other foods will fill the baby and the baby will lose interest in nursing. When the baby does not nurse, the mother's breasts produce less milk.

## V.2 Mild Disorders Of The Baby

### 1. Adhesive umbilical cord

If the umbilical cord is adhesive, it should be washed, dried and a drying solution e.g. gentian violet should be applied to it. If it is infected and smelly, a doctor should be asked for advice. The doctor might prescribe her general or local antibiotic preparations.

### 2. Sticky eyes

A sticky, watery discharge from the eyes should be reported to a doctor immediately. Bathe the eyes and instill the drops ordered. Destroy all cotton used and secure the baby's arms to keep him from touching the infected eye. Lay him on the infected side to permit drainage.

### 3. Swollen breasts

Swollen breasts are common among new-borns. It doesn't require any treatment. The main reason for bandaging them is to protect them from being pressed or infected.

### 4. Vaginal bleeding

Sometimes a pink discharge will trickle from a female baby's vagina. It doesn't require any treatment, but assuring the mother.

### 5. Physiologic Jaundice

It appears on the third and fourth day after birth. It will intensify until the fifth or sixth day and die away until the seventh or eights day. It is called "Normal or Physiologic Jaundice". It does not require special treatment. It will disappear spontaneously. If the newborn can be kept warm (during the summer) but without overheating, exposeing the newborn to sunlight will help corred the billirubin associated diseases.

### 6. Caput succedaneum

Caput succedaneum (swelling) appears on that part of the baby's head which was presenting while being born. It is a subcutaneous swelling and lies on more than one skull bones. It doesn't require a special treatment for it will disappear within 24-48 hours.

### 7. Cephalo-hematome

This is also a caput swelling, but it is limited in one of the skull bones and doesn't cross the sutures. It appears 24 hours after birth and the cause is rupture of blood vessels due to the high pressure, while giving birth. Don't touch it, its recovery may last for some months.

# Chapter VIII

# ABNORMAL POST PARTUM

# I. COMPLICATIONS IN THE BABY

## 1. Asphyxia

Asphyxia means halting of breathing. Anytime that a child does not breath, try first aid as soon as possible to get the child breathing again. If a child does not breath for 4 minutes the lack of oxygen affects the brain and causes mental disorders. Actually, the cry is the first breath of the child. In asphyxia, the child does not cry. The skin, instead of being pink or white, looks pale. The heart sound can be heard very slowly and the respiration movement is not visible. When you are in a health post try to have a movable table to lay the child in a way that the head should be little bent a little lower than the body, and try to gain immediate recovery. If the delivery is at home, put the child's head at an angle lower than his body and give mouth to mouth resuscitation.

### Artificial Resuscitation (Mouth to Mouth)

As soon as possible clamp and cut the cord, but unless it is necessary do not cut the cord. Turn the head of the child carefully to the back and put a folded cloth under his neck. Put your mouth on the child's mouth and nose and blow carefully. Blow with short breaths (40 times/minute). Do not blow from your lungs to the child. If you inter the air falsity it causes rapture of the child's lungs. When you are blowing, the child's lungs should move. The child starts breathing in with the blows, like normal breathing, so when the child starts breathing you should stop blowing. The child should start breathing and his color should become pinker. If the child does not start breathing, refer him/her to the hospital.

## 2. Aspiration of meconium

Where there is meconium stained liquor as a result of fetal distress the fetus may aspirate it into the lungs either in utero or at delivery. This can result in pneumonitis, respiratory distress and pneumonia.

### Management of meconium aspiration

Meconium aspiration is life-threatening, therefore action is directed towards preventing meconium from entering the air passages. As soon as the head is born, meconium must be removed from the oropharynx and nostrils using a mucus extractor.

## 3. Dyspnoea (Shortness of breathing in newborns)

**Causes: Various**

- Entrance of amniotic fluid into the respiratory tract at the time of delivery.
- Entrance of milk into the respiratory tract.
- Anomalies of respiratory tract e.g. obstruction of the bronchus or absence of a part of the lung.
- Head damages, harming the respiratory center in the brain. i.e. disturbing its function.
- Respiratory infection (Pneumonia)

**Signs & Symptoms**

Fever, inability to suck the breast, fluttering nasal wings, cyanosis of hands, feet and lips, frequent sagging of inter costal spaces, simultaneous with each respiration, rapid and grunting respiration.

**Management**

Upon observing two three or more of the aforesaid symptoms, refer the patient to the doctor. But if all the symptoms your patient has are a mild fever, cough and nasal discharge, prescribe him/her and analgesic drug.

The mother should be advised not to cover the baby with many cloths. Ask her to expose her baby to the open air, provided it is not cold. Besides being breast-feed the baby should also be given cool boiled water (5 cc 2-3 times a day)

Remember:

Fluttering nasal wings, inability to suck the breast while breathing, depression of inter costal spaces, cyanosis and rapid and grunting respiration are the symptoms of a serious respiratory diseases. The baby should be referred to the hospital as soon as possible.

# II. COMPLICATION IN THE MOTHER

## 1. Puerperal Sepsis

### Definition

Puerperal sepsis is defined as a febrile condition occurring within 14-21 days after illegal abortion or delivery.

### Causes

It is more likely to occur in the following women, as a result of bacteria introduced into the genital tract during delivery:

- Women who had premature rupture of membranes and delivery was delayed.
- Women with traumatized tissues, resulting from an instrumental or operative delivery.
- Women who had a hand introduced into the uterus during delivery or had many vaginal examinations.
- Women who have had a prolonged and exhausting obstructed labour.

### Signs and symptoms

The MCHO should suspect an infection when there is a rise in temperature and pulse rate, accompanied by any or several of the following signs and symptoms.

1. The uterus is not steadily decreasing in size and may feel spongy.
2. The lochia is more than normal, less than normal, foul-smelling or still red or brown after 10 days.
3. There is marked pallor, vomiting and restlessness.
4. There is severe headache.
5. Severe pain and tenderness in the lower abdomen
6. There is uncontrollable shivering

### Management

1. Where medical aid is available refer the patient to the hospital.
2. Keep the mother's eating utensils and linen separate from those of the rest of the household.
3. Disinfect bedpan or toilet after use.
4. Burn all sanitary pads and dressings immediately.

5. If the mother is not too ill to feed the baby, ensure that her hands and nipples are clean. If she is unable to breast-feed, express the milk and feed to the baby.
6. Wear a gown and mask when carrying out nursing care.
7. Preferably, the MCHO should not attend another woman in labor or in the post-natal period until the danger of carrying infections is over. However, this precaution is often impossible, so extra care should be taken about scrubbing hands and avoiding any contamination of equipment or clothing.
8. When planning the order of daily visits, try to visit the infectious mother last.
9. Where medical aid is not available, or there is some delay in transporting the patient to a hospital, the MCHO should be instructed to give an antibiotic such as penicillin cotrimaxazol to the patient.

. **Prevention**

Puerperal sepsis can be prevented by strict attention to asepsis during and immediately after labor. This includes the use of clean gowns and masks; clean hands; sterilized equipment; a clean room; and the exclusion of any person with a cold, sore throat or infected wound form the mother's room.

## 2. Post Partum Hemorrhage

The term postpartum hemorrhage refers to any hemorrhage from the genital tract occurring within 6 weeks of delivery. Most hemorrhages occur in the first hour and may precede or follow completion of the third stage.

**Causes**

a. Laceration of cervix, vagina and perineum:

*Signs and symptoms*

This variety has to be distinguished from that originating in the placental site. If the fundus of the uterus is firmly contracted and bleeding is continuing, there is a strong possibility that it is coming from a laceration.

b. Atonic Uterus:

If the bleeding is coming form a vaginal or perineal source, it will be controlled when these are repaired by the doctor.

Atony of the uterine muscles may result from

- Prolonged labour
- Multiparity
- Over-distension due to polyhydramnios or multiple pregnancy
- Placenta previa-inability of the muscles of the lower uterine segment to retract efficiently.
- Retained fragments of placenta or membranes
- Full bladder with reflex atony

*Management*

If there is no pieces of placenta

- Empty the bladder
- Massage
- Cold compressure
- Methergen

If there is retention of a piece of placenta then refer the patient to a hospital.

c. Bleeding that occur 24 hour after delivery

Is nearly always due to infection of retain piece of placenta.

*Signs and Symptoms*

The uterus is bulkier than one would expect for that particular time in the puerperium. The lochia may be red, profuse and offensive. The mother will complain of having a very smelly discharge.

*Management*

Refer the patient to a hospital.

## 3. Mastitis

Mastitis is an inflammation of the breasts due to infection or engorged breasts

### Causes

The following may be predisposing:

- Cracked nipples.
- Stasis of milk with engorgement, blocked ducts and failure to empty the breast.
- Infection in the baby.
- Lack of hygiene in the mother

### Signs and symptoms

The condition is usually of sudden onset with pyrexia (39 - 40 degrees C). The breast becomes hard, painful and inflamed, usually in one or more localized areas. Abscess formation is likely unless appropriate chemotherapy is given early enough.

### Management

- In a mild case the mother continues to breast feed her baby.
- In more severe cases, the baby is taken off the breast and given supplementary feedings; milk from the affected breast is expressed and discarded.
- Support to the breast with hot compressure.
- Analgesics are essential.
- Temperature and pulse rate are taken and recorded 4-hourly.
- Antibiotics should be ordered.
- Adequate fluid intake must be maintained
- If it is a major mastitis refer the patient to the hospital.

## 4. Thrombophlebitis

Thrombophlebitis is an infection of the veins of the legs and is frequently associated with varicoseveins, rise in temperature and pulse rate, and pain.

### Causes

- Increased tendency of the blood to clot
- Stasis in the veins, (aggravated by immobility in bed.)
- Varicose veins
- Infection

**Signs and symptoms**

The MCHO should always consider seriously any complaint of tingling sensations cramp like pains or swelling in the legs. There is a rise in temperature and pulse rate and pain and swelling in the affected leg. In the more severe form the leg is pale and extremely swollen.

**Management**

Medical aid should be called. An antibiotic is usually ordered.

The MCHO can help to relieve the pain by applying heat to the leg. A stool or box with the ends removed will help to take the weight of the bedclothes. When the patient is allowed up, a crepe bandage should be applied till the swelling disappears. Complete bed-rest is essential, but the mother should be encouraged to move the affected leg when the pain lessens.

# Chapter IX

# CARE OF (0 - 5) YEAR OLD CHILDREN AND MANAGEMENT OF COMMON PROBLEMS

# I- THE MCHO'S ROLE IN EXTENDING CHILD HEALTH CARE

## 1. The relation of the child with the family and community

In most of the countries in the world the children's mortality rate before the age of five years forms a 1/4 (quarter) of the whole alive births. In some places it is equal to half of the total number of the children in the area.

Most of the children who survive are ill. To save the children;s lives MCHOs are supposed to prevent the mortal diseases. Hence, MCHO is to know the methods of preventing these diseases in healthy children, and curing the ones who are already involved. A child is healthy only if she/he belongs to a healthy family. Therefore the MCHO should not forget the child's family especially the mother.

Whenever a mother comes to the clinic, she should be asked the following questions:

- Do you seek help relevant to prenatal care?
- Do you need help in relation to family planning?
- Is anyone else in the family sick?

A sick child is always unhappy and his death is a big loss for the family. The health of every member of the family is very important.

The child should be maintained healthy for the following reasons:

Many parents would like to have large families in case some of their children die. Since they allow more births, the world population increases faster. In the long run there will not be enough room, schools jobs etc. for so many people in the world.

Most of them will lead a poor life. The mothers will not be able to look after their children, and to feed them properly children born after a gap of 3-4 years are healthier than those born within shorter periods of time. The mother should be instructed family planning and child spacing, so that we can get them have small families. The parents will agree to have small families. Hence, the adoption of family planning requires good health care, and good health care is attributed to family planning. So family planning is the most important step in providing child health care.

## 2. Objectives of Children Health Care Adoption

Adopting children health care means achieving the following two goals (by MCHOs):

A. Quality: Children health care should be delivered in the best possible manner.

B. Coverage: Health care should be accessable to all children.

# PEDIATRIC HISTORY

A. Source history
From person responsible for the child
Also information from the child

B. Interpretation of history
Chief complaint may not be the main problem
Focus on the correct concerns

C. Direction of questioning
After presentation of problem, fill in with necessary past history, family history

D. Recorded history
Should be clear, detailed, in chronologic order
Include the parents interpretation of the problem and their expectations

E. Beneficial Effects
First stage of management of the patient. Avoid being hurried. Make parents feel you are listening to them and giving them your time and attention.

History Outline

Record the name, age and sex of the child, date, case number.

Chief Complaint: The patient's or parent's own brief account of the complaint and its duration.

Present Illness:

1. When was the patient last well?
2. How and when did illness start?
3. Health immediately before illness.
4. Progress of disease - order and date of onset of symptoms.
5. Specific symptoms and physical signs.
6. Pertinent negative data by direct questioning.
7. Aggravating and alleviating factors.
8. Medications given or other treatments used.
9. In acute infections, exposure and interval since exposure.
10. Examiners opinion about reliability of the informant.

Past History:

1. Before birth - health of mother during pregnancy - medical attention, surgery, infections.
2. At birth -duration of pregnancy, kind of labor, problems at birth.

3. After birth - birth injury, convulsions, fever, bleeding, jaundice, cyanosis, pallor, feeding difficulties.

Development

1. First raised head, rolled over, sat alone, pulled up, walked with help, walked alone, talked.
2. Supplemental vitamins: type, amount, duration.
3. Solid fool: When introduced, how taken, types, family diet.
4. Appetite: food likes and dislikes, allergies.

Illnesses

1. Infections: age, types, number, severity
2. Contagious diseases: age, complications following measles, chickenpox, mumps, pertussis, etc.
3. Others

Immunization

Type, number, when given

Operations

Type, age, complication, reasons for operations.

Medications

Chronic use, allergies to medications.

Family History

1. Father and mother (age and condition of helth)
2. Siblings: age, condition of health, eignificant previous illnesses and problems.
3. Stillbirths, miscarriages. Age at death and cause of death of members of immedicate family.
4. Tuberculosis, allergy, diabetes, cardiovascular diseases, rheumatic fever, congenial abnoramlities, other.
5. Health of contacts.

Personality History

RElations with other children, other family members. Separates from parents, submissive, shy, negative, easy or difficult to get along with.

Social History

1. Family: Income, Living situation. Who takes care of the patient. Support systems.
2. School

Habits

1. Eating: appetite, food dislikes, how fed.
2. Slepping: hours, disturbances, restlessness, nightmares.
3. Elimanation: Urinary and bowel.
4. Disturbances: Excessive bed-wetting, temper tantrums, breath-holding, nervousness, thumbsucking, others.
5. Dentel hygiene
6. Safety habits: Fires, hot water, toxic substances, avoiding traffic.

Review of Systems

1. Ears, nose, and throat: Frequent colds, sore throat, sneezing, stuffy nose, discharge, postnasal drip mouth breathing, snoring, otitis, hearing, adenitis, allergies.

2. Teeth: Number at age 1. Comparison with siblings. Caries.

3. Cardiorespiratory System: Freuency and nature of disturbances. Dyspnea, Chest pain, cough, sputum, wheeze, expectoration, cyanosis, edema, fainting, tachycardia.

4. Gastrointestinal: Vomiting, diarrhea, constipation, type of stools, abdominal pain or discomfort, jaundice.

5. Genitourinary System: Urinary incontinence, dysuris, frequency, polyuris, pus or blood in urine, character of urinary stream, vaginal dischargs, menstrual history, abnormalities of penis or testes.

6. Neuromuscular System: Headache, nervousness, dizziness, tingling, convulsions, ataxia, muscle or joint pains, postural deformaties, exercise tolerance, gait, scoliosis in adolescents.

7. Special Senses

8. General Review: Unusual weight gain or loss, fatigue, skin color and texture, abnormalities of skin, temperature sensitivity, mentality, bleeding tendency, pattern of growth. Times and pattern of puberty, Hyperactivity. Attention span.

## II- SOME COMMON PROBLEMS OF NEWBORN (0 - 1 M)

### 1. Vomiting

A large number of newborn babies have vomiting on the first day of their birth, which is caused by the swallowed amniotic fluid. It does not require any kind of treatment Don't quit breast feeding. Naturally it will disappear after one day.

Vomiting in the subsequent days may be caused by wrong breast feeding. Mother should be advised to keep the baby's head upper than the rest of his/her body while breast feeding him/her. After each breast feeding, rub the baby's back gently and wait until the baby belches. If the vomiting continues and meconium is not excreted until 24 hours, the baby should be referred to a doctor.

### 2. Constipation

It's not common among the babies who are breast fed, But if it happens, the baby should be given a few cc of warm boiled water daily. (It is normal for 3-4 days) If no improvement refer him/her to hospital.

### 3. Diarrhoea

Meconium (the first faeces of a new born baby) is brown, smelly and loose watery stools which is completely excreted over a span of a three days. If the baby continues to have frequent watery defecation, it is called "Diarrhoea". If a breast fed newborn excretes goldish yellow stools (which is neither so watery nor so hard) 6-7 times a day it is not called diarrhoea i.e. it is normal.

### 4. Icterus Gravis (Severe Jaundice)

Jaundice appearing within the first 24 hours, and sometimes up to the third day, is extremely serious. It is due to the Rh factor. The MCHO should notify a doctor immediately The jaundice will become progressively worse and the baby will be very restless and will not want to feed. Medical attention is essential. Until the doctor arrives, the MCHO may try to feed the baby with glucose and water.

When mothers have their blood examined during pregnancy, those who are Rh negative with antibodies are known before labor begins, and arrangements are made to have them deliver in hospital.

## 5. Lesion of buttocks

Lesion of buttocks is common in babies. The cause may be not changing the diapers frequently, plastic or nylon diapers with no pores for ventilation, using clothes which are not properly washed and rinsed, cloths with improper quality i.e rough texture, made of synthetic materials etc., frequent watery faeces.

### Treatment

Detect the cause and eliminate it. If it is just a redness of the skin, the skin should first be washed with water and soap and then lubricated with a suitable cream. If lesion or fissure, the diaper should be removed and the buttocks exposed to sun. Using zinc pomade mixed with caster oil has been proven useful. Special baby creams are available.

## 6. Heat Rashes

These are pointed, itching rashes caused by much sweating, and common in places with hot climate.

### Treatment

Give him/her warm baths, with the water containing one teaspoon full sodium bicarbonate per pint. Then apply absorbent solutions such as calamine or sodium bicarbonate plus water, or some antiseptic powder to the skin. Avoid wrapping the baby in many clothes as well as in nylon diapers.

## 7. Tetanus

### Causes

It is caused by tetanus bacillus producing a fatal toxin. The tetanus bacillus lives and grows in soil and dung. It is spread through contaminated and unwashed hands as well as unsterile instruments. For example, a newborn may receive it through his/her umbilical cord cut with unsterile instruments or/and contaminated hands. Usually tetanus results in the baby's death.

### Signs and Symptoms

a. Chief Complaint:
   Due to the muscles spasms, rigidity and convulsions the baby is unable to open his/her mouth. Thus the baby cannot suck the breast.

b. Usually after one week the baby gets difficulty sucking the breast.

c. Physical Examination:
The baby is unable to suck (spasms). In voluntary muscles movements gradually develop into spasms (convulsions). The intensity of convulsions is directly related to the number of tetanus bacillus taken.

The episodes of convulsions will be touched off by any noise or by touching or moving the patient. Spasm and stiffness spread all over the body. Convulsions disturb the respiration of the baby.

**Management**

A child with tetanus requires serious care. The child should be laid in a dark and silent room. Refer him/her to the hospital.Until reaching the hospital the mother should hold the baby in a position which reduces the possibility of the oral discharges and saliva's entrance into the respiratory tract.

**Prevention**

Tetanus can be prevented by three ways.

a. Using sterile instruments while conducting a delivery. Advising the ones who are conducting deliveries to wash their hands properly and use sterile instruments. The proper way of cutting the umbilical cord should also be explained and demonstrated to them, how to dress the cord.

b. Using sterile instruments while circumcising a baby. Advising others who fulfil this operation to use sterile instruments and dressing.

c. All pregnant women should be vaccinated against tetanus, (TT), during the last three months of pregnancy. This will protect the baby from tetanus.

## 8. Neonatal Septicemia

### Definition and causes

It is a mortal bacterial infection of the blood. It enters the body through the umbilical cord or the Rupture of amniotic membrane before the right time.

### Signs and Symptoms

a. Chief Complaint:
Unable to suck the breast properly, vomiting, fever (or a temperature lower than normal), dyspnoea (difficult breathing), uneasiness, weakness.

b. Medical History:
Ask her about her pregnancy and delivery status. Ask her whether or not the amniotic membrane ruptured 12 hours prior to the delivery time.

Whether or not the umbilical cord has been cut with sterile instrument. (Scissor, razor blade etc.)

Whether or not the cord dressing has been sterile.

c. Physical Exam:
Umbilical cord should be carefully inspected to see whether or not erythema or pus exists. Existence of two or more of the following symptoms refers to septicemia: Jaundice, Weakness, Debility, Uneasiness, Dyspnoea, Fever and low temperature.

### Management

1. The newborn should be kept warm.
2. Breast feed the baby. If the baby is unable to suck the breast and there is no possibility of sending him/her to the hospital, the mother should be milked first and the milk then should be given to the baby.
3. The mother cannot milk more the 50 cc, the baby should be given 10% Glucose solution.
4. The baby should be referred to the hospital as soon as possible.

**Prevention**

Septicemia can be prevented by proper and hygienic cutting of the umbilical cord. Dais should be instructed how to use sterile instruments and how to wash and clean their hands while cutting the umbilical cord.

For the first week after birth the baby's umbilical cord should be exposed to the open air. If pus exists in and around the umbilical cord, it should be washed with sol gentian violet 1% twice.

Care of newborns with risk factors:

These are the children born through difficult and long deliveries. Children weighing less than normal right after being born. Children whose births happened 12 hour later than rupture of amniotic membrane.

## 9. Neonatal Gonococcic Conjunctivitis

**Causes**

Pregnant women who have got Gonorrhea will transmit it to their children while giving birth to them. It may result in the neonatal blindness.

**Signs and symptoms**

a. Chief complaint:
   Red eyes with purulent discharges. Or the pus may appear on the fifth day after birth.

b. Physical Examination:
   The newborn's conjunctiva will be infected and red. Pussy discharges can be viewed at both corners of the eyes.

**Management**

1. Washing the Eyes:
   Boil 1 lit. water and prepare a normal saline. Let it cool. Wash the eyes with it, starting form inside the eye and the medial corner (close the nose), moving toward the lateral corner of the eye.

2. Applying Eye drops:
   The eye drops and ointments which contain Penicillin should be applied after every two hours. Otherwise the gonococcus will grow faster.

3. Penicillin (IM) after every 12 hours for 4 days.

4. If there is no cure after treatment with tetracyclin refer him/her to hospital.

**Prevention**

It can be prevented through dropping sol. silver nitrate 1% into the newborn's eye while being born this should also be instructed to dais who conduct home deliveries. The new born parents should be treated.

## 10. Thrush in Newborn

**Causes**

It is a fungal infection carried by most of the people but without showing signs and symptoms. Because it grows in special environment. Usually the newborns get the infection form the mother's birth canal.

**Signs and symptoms**

a. Chief Complaint:
Presence of white patches on the newborn's oral mucosa causes him/her difficulty in sucking the breast.

b. History:
Usually the mothers of these newborns will complain about having vaginal itching and discharges. Vaginal mucosa will be erythematous and secreting watery discharges some of which has been transmitted to the newborn.

Thrush may also appear in newborns and children who have recently taken antibiotics. Leader and white patches can be seen on the tongue and oral mucosa which grow fast and finally leave scars. Thus the mucosa turns fragile and bleeding.

c. Complications:
In severe cases of thrush the patches may diffuse and remain in the throat which will cause the baby a severe pain and difficulty while breathing or swallowing.

Note: It may also occur in older children.

**Management**

1. A proper diet can prevent thrush. To prevent dehydration, liquids should be given to the baby.

2. Gentian violet 1% should be applied to the patches three times a day (to dry them).

3. Vaginal or skin infections of the mother should be treated (if any).

4. Antibiotics are contraindicated. Because, they eliminate the oral microbial flora and thus, accelerate the overgrowth of the fungus.

**Prevention**

- A proper diet can prevent thrush.
  Vaginal or skin (perineum) infection of the mother during pregnancy should be treated.

## 11. Cord Infection

**Causes**

It is caused by not observing asepcy and antisepcy while cutting the umbilical cord. That is it can be caused by unsterile instruments (e.g. scissors, blades etc), unwashed or contaminated hands (of the one who is conducting the labor), and unclean environment. Cord infection causes a serious health problem which may result in the newborn baby's death.

**Signs and Symptoms**

Remember, normally after the remainder of the umbilical cord drops (gets apart), a clear yellowish discharge will exist in the newborn's navel for some more days. However, the following symptoms refer to cord infections; Fever, Smelly and infected umbilical cord and pus in the navel.

**Management**

In these circumstances the navel should be properly washed with a strong antiseptic solution and then covered with a sterile dressing. Give antibiotic to the patient, if no cure with treatment. The patient should be referred to the health center.

**Prevention**

Use sterile instruments and wash hands before conducting delivery.

# III- CONGENITAL ANOMALIES

## Introduction

Among a hundred alive newborns approximately one of them will suffer a kind of congenital anomalies. There are many types of congenital abnormalities. However, only the kinds which can be dealt with in MCH post, by MCHO, are mentioned here.

## Causes

In most cases the cause is unknown. The followings, although, can be taken into account:

- Malnutrition during pregnancy may cause cleft lip or cleft palate.
- Heredity for example, a child whose father has an accessory digit, may also have the same abnormality.
  Taking some drugs, x-ray and poisons as well as different kinds of trauma especially during the first three months of pregnancy may result in various types of congenital anomalies.

## Common birth anomalies

### 1. Cleft lip and cleft palate

a. Cleft lip:

This is a congenital abnormality in which the different parts of the upper lip fail to unite consequently, a slit, which usually reaches the nostrils, remains in the upper lip.

b. Cleft palate:

This is also a developmental anomaly in which the two parts of the palate fail to fuse in the midline. Thus a slit remains in the top inside part of the mouth.

Though the only effective alternative in this case is surgical operation, its performance is contraindicated during the first 4-6 months of life. Therefore the followings should be observed within the time mentioned:

- Mother should be advised to insert her breast further into the baby's mouth so that the child can suck and swallow the milk easily and properly.
- If the baby is fed with a spoon, position him/her half sitting up while feeding.
- Since, usually the child is unable to suck the breast properly, the mother had better pour her milk in a pot and then give it to the baby.
- Ask the parents to try to join the two margins of the slit with their fingers several times a day. This will facilitate the operation.

**2. Accessory Digit**

This anomaly is seen in some children. It can be on both hand and foot. If it is small and boneless, tie it firmly at the bottom with a thread.

It will die out within a few days and get apart. If it is big and bony, it requires surgical operation.

### 3. Spina Bifida

It is a congenital defect in the posterior bony wall of the spinal canal. the spinal cord protrudes through this opening and lies right beneath the skin. Thus it can be easily damaged by outside traumas. To protect it from outside traumas, act as follows:

- Place a tyre-like object (with a hole in the middle) around the defect and strap it. It can be made of rubber or cloth, but it shouldn't touch the defect.

Spina bifida is likely to be treated surgically. Figures show the child's state before and after the operation.

### 4. Anomalies of the lower limbs (Legs)

In young children there are some temporary deformities which can mistakenly be considered as anomalies. These will improve as the children get older and older. MCHO is to distinguish these temporary deformities and anomalies.

a. Club Feet

This deformity results from the improper position of the fetus inside the uterus. Its normal for the first few weeks or months of life and abnormal then.

b. Flat Feet

In this case the child walks only with the medial part of the roles on the ground and with the thighs apart. Feet look fat and flat. This is normal until the age of two years.

c. Bow legs

Legs are flexed with the knees outward. It starts improving upon reaching the age of 18 months.

d. Knock Kneed

Legs are flexed with the knees inward and touching while walking. This is normal until the age of 2-12 months.

If any of the aforesaid cases is seen after the ages limited above, it should be considered as an anomaly and the patient should be referred to the doctor.

# IV- GROWTH AND DEVELOPMENT

## Definitions

The term "Growth" implies an increase in the size or mass of tissues.

"Development" is defined as maturation of functions Growth means the quantitative changes of the body. For example, gaining weight, height and structural changes.

Development refers to the qualitative changes of the body and increases parallel to the age of the baby. For example: Smiling, sitting, standing, walking, holding things etc.

## Growth Rate Change in Different Ages

The growth rate in children varies according to their ages. The younger the child the more and the faster he will grow. Normally an infant doubles his birth weight by the age of one year. Similarly when he reaches the age of two years his weight will be four times as much as his birth weight.

For example: If the birth weight = 3 Kgs then:

| | |
|---|---|
| After 5 months | = 6 Kgs |
| After 12 months | = 9 Kgs |
| After 2 Years | = 12 Kgs |

Growth chart and weight card should be demonstrated to the MCHO. An MCHO should be able to comprehend that a child below 6 months grows faster than an 8 Month old child, by comparing their ages and weights on the growth chart. MCHOs should also know that if the growth of the child is slowed or arrested, it is very important to examine the child more frequently or refer him to a doctor.

The following table shows the child's development from the birth time till the age of 5 years.

| Age | Social Skill | Physical Skill | Language Skill |
|---|---|---|---|
| The first few minutes of life | | Moves limbs | Cries |
| 6 Weeks to 2 Months | Smiles when his mother is smiling to him. | Lifts head when lying on stomach | Listens to sound |
| 3 - 5 Months | Smiles | Controls his head | Laughs and shout |
| 6 - 8 Months | Uninterested in strangers | Sits | Makes different sounds (meaning-less) |
| 8 - 12 Months | Imitates clapping from his mother | Crawls | Speaks a word |
| 12 - 14 Months | Drinks from cup | Stands up | Repeats his parents word |
| 14 - 18 Months | Imitates house hold works | Able to walk with-out help and climb stairs | Speaks 3 words other than the Parents |
| 24 - 30 Months | Washes and dries own hands | Jumps | Knows and can say names of some people |
| 4 - 4.5 Years | Able to fasten the buttons on clothes | Skips on one foot | Can say what he wants while get-ting hungry/hot |
| 4.5 - 5 Years | Helps dress self | Catches the ball | says sentences |

## Measuring arm circumference

The child's nutritional status can be assessed through measuring the mid-arm circumference and weighing the child. The mid-arm circumference is measured with a tape and the weigh is measured by a scale. Well-nourished child is muscular. Therefore his mid-arm circumference is larger than that of a malnourished baby, who has less muscles.

There are three colored zones (green, yellow and red) and a black line on the tape which is used for measuring the mid-arm circumference.

The main purpose of measuring the mid-arm circumference is to know whether the child has been well-nourished or malnourished.

### How to measure the mid-arm circumference?

The child is standing with his arms hung down. Wind the tape around the middle part of his arm, and see which zone the black line meets. If it meets the green color, the child is considered normal. To make sure that the baby has been well-nourished and has grown normally, weigh him. If the black line meets the yellow zone, it implies that the baby suffers a moderate malnutrition and requires a proper diet and special care. The red color refers to a severe malnutrition, which needs special treatment and health education. The mother needs to be given instructions such as how to prepare a good and proper food, how often the baby should be fed, how to take care of the baby etc. Ask the mother to bring him to the MCH center for subsequent examinations to see whether or not he has gained weight.

**Weighing the Baby**

There are various scales for weighing the baby. The most common are:

- Infant's Scale
- Salter Scale
- Stand up Scale
- Bathroom Scale

If there is an Infants' Scale or a Salter Scale, they are the best and special for neonatals and young children. Otherwise, the baby can be weighed in a different way. That is while the mother is embracing her baby, they are weighed together, by a Bathroom Scale or a Stand up Scale. Then the mother is weighed alone. Subtraction of the mother's weight from the mother and the baby's weight together will give us the baby's weight.

Baby's Weight = Mother and baby's weight - Mother's weight

**Growth Chart**

The green color implies that the baby has been well-nourished and has grown normally. The red and yellow colors suggest that the baby has been malnourished and therefore is suffering malnutrition, and requires special treatment proper diet as well as health education and care.

Distinction of the babies with risk factor is the first step in prevention of malnutrition.

Children with one or more of the following risk factors require more care (children of this sort should be noted.)

- Malnourished mother
- Premature baby (L.B.W = Low Body Weight)
- Mother is not able to breast feed the baby
- One of the baby's parents has died (especially mother)
- A large number of children in the family
- Diseases (note the name of the disease)
- Not gaining weight

**Plotting the Growth Chart**

The growth chart consists of vertical and horizontal lines. The vertical lines show the age of the baby (by months while the horizontal lines show the baby's weight by kilogram). In this chart 48 months have been divided into 4 years. The baby's weight has been divided into (17 Kgs = 38 Pounds).

The plotting starts from the lines referring to the age of the baby, as follows:

Ask the mother the baby's month and year of birth. Write the month's name in the box, with bold margins, at the low left corner of the chart. Then weight the baby and mark it with a (-) in front of the same month continue in the same way in the subsequent months.

The mark (-) of every month should be connected to that of the previous (preceding) month. Thus, these marks form a line which is called the Growth line of the baby.

**Reading a Growth Chart**

The three different colors on the growth chart suggest three different states of the baby's growth as follows.

If the growth lines is running down the green color it implies that the baby is healthy and well-nourished. The parents should be asked to continue feeding the baby with the same diet, as before.

If the growth lines meets the yellow color, it means that the baby is suffering a mild malnutrition and needs to be fed five times a day, with a moderate amount of food each time.

The growth line lying in the red zone implies a severe malnutrition. More attention should be paid to the baby's diet, in this case. Moreover, a special treatment is required. These children must be followed-up by MCHO through either home visits or visits in the health center.

A rising growth line suggests that the baby is gaining weight.

A flat (horizontal) growth line implies that the baby has not gained weight. (Risk factor)

A descending growth line refers to severe malnutrition or an acute infections disease which requires special care. (nutrition & treatment)

# V- NUTRITION

## 1. Breast feeding

### Introduction

The best and the most proper food for a baby is the mothers milk. because it contains adequate amounts of calorie, protein, carbohydrate, lipid, vitamins, minerals and water which meet the baby's needs. As soon as the baby is born, she/he should be put to the breast. This causes uterine contraction and prevents bleeding. The breast secretion during the first few days after delivery is called "Colostrum".

Colostrum, which contains antibodies, immunizes the baby against many diseases. Furthermore, the mother's milk acts as a purgative and facilitates defecation.

### Advantages of the Mother's milk for the baby

- An appropriate food for the baby.
- It enhances the sentimental relation between the mother and the child.
- It contains antibodies which immunize the baby against some diseases.
- Always fresh and clean never goes rotten.

### Advantages of the Mother's milk for the mother

- Inexpensive food.
- The most suitable food ever available i.e. adequate, good temperature and clean.
- Breast feeding gives the mother a chance to relax.
- In women who breast feed their babies, the uterus returns to its previous shape and size.
- The possibility of Breast Cancer is less in women who are breast feeding their babies.
- Breast feeding can be done whenever convenient for both the mother and the baby.
- Breast feeding is always ready every time you want to give to the baby
- Breast feeding decreases the chance of getting pregnancy.

## 2. Weaning feeding

That is giving semisolid foods to the baby in addition to the mother's milk. The mother's milk is an adequate and proper food for the baby but until the age of 4-6 months. Children above 4 months need additional food for their proper growth.

The main purpose of weaning feeding is to provide the baby with adequate amounts of protein, calorie and other nutritious elements which are necessary for a normal growth and development.

The baby should not be weaned as soon as the supplementary feeding is started, for the mother's milk contains some necessary elements which improve the baby's health. Breast feeding should be continued until the baby implies his/her readiness for being weaned. Sudden weaning may cause the baby a shock.

The baby will imply his/her readiness through his/her willingness to

- Drink from a glass or cup
- Eat with his/her own hands
- Have his/her meals with other members of the family.

Encourage the baby to be self reliant!

If the baby cannot hold the glass or cup properly and pours more than he/she drinks, the mother is to continue breast feeding until the baby is able to hold the glass or cup properly. When the baby reaches the age of 1-2 years, she/he doesn't have to be weaned compulsorily. Because,this action may hurt his/her feeling toward the mother. The best method of weaning is to encourage the baby to use his/her own hands, and feed him/herself. Remember, there is no fixed time for weaning.

## 3. Introducing Solid foods

The first food given to a baby are as follows:

**(Grains) Cereals**

Since they are rich in iron, they are given to the baby as a primary food.

Start with one teaspoon full rice mixed with the mother's milk. Continue with other kinds of food which contain wheat and ground rice. For example, porridge, pudding etc.

**Fruits and Vegetables**

Fruits and vegetables which contain adequate amounts of minerals and vitamins (especially vit C). Small amounts of diluted juice form orange, lemon, pomegranate, apple etc.

Fruits such as banana, peach, plum, mango etc. should be mashed with a spoon and then given to the baby. While vegetables and cereals such as carrot, peas, lentils, been, squash etc. should be boiled before being mashed. The water in which the vegetables and cereals have been boiled should not be thrown away, because it contains a large quantity of water soluble vitamins. Hence, some of it should also be given to the child along with the crushed cereals and vegetables.

**Yolk, meat, and gravy**

The yolk of a hard-boiled egg should be dissolved in a little milk. White of the egg which is not easily digested should not be given to the child in this age. Meat should be well-softened (well-done) and then mixed with the boiled vegetables and grains. Children above 6 months should be given a combination of various foods so that they will have a well-balanced diet of various foods.

**Cheese, yoghurt, biscuit, fried food**

White of a hard-boiled egg, softened meat (well-done) and fish. The more a child develops the more he needs various kinds of food. Therefore, supplementary foods should be added to his diet accordingly. The child may be given egg, meat and fish only if they are boiled. Avoid giving him fried fish because the baby is not able to digest it. A one-year-old baby should be given three kinds of food. Use available foods with high nutritious value.

4. How to make sure that the baby's food is sanitary and properly prepared?

Once the weaning feeding is started, the child is most likely to get infected (especially diarrhoea). But this likelihood can be simply reduced to minimum by observing the following instructions:

- Only if the cooked food is fresh give it to the baby. Don't forget to peel and wash the fruits and vegetables before preparing the meal or giving it to the baby (raw).
- Both the mother and the baby should wash their hands properly before eating or touching the food. Since the spoon is safer than hands, the baby had better be fed with spoon.
- The pots used while cooking or feeding should be washed with hot water and soap, dried in the sun and then covered with a net.
- The food should be properly protected from dust.
- Contaminated food and pots should be boiled for ten minutes. This will eliminate the microbes.
- The cooked food should not be saved for more than two hours in hot weather.

**Preparing a proper food for the baby**

MCHO is to encourage the mothers to combine three groups of food substances i.e. carbohydrates, protein, vitamin and lipids while preparing the baby's food. And to make a perfect combined food the available food stuff such as peas, beans, potatoes, milk, egg, cheese, meat, fish, vegetables and fruits should also be added to the baby's diet.

# VI- NUTRITIONAL DEFICIENCY DISEASES

## 1. Malnutrition

### Introduction

A malnourished baby doesn't grow well due to lack of essential food. Essential food for infants is the mother's milk and for children (above 4-6 months) is the supplementary tonic food.

The symptoms of malnutrition are easily distinguished but the most important point to know is how to prevent malnutrition. In fact the prevention of malnutrition is much more easier than its treatment. Even the mild malnutrition in the long run, may result in the baby's death.

Therefore, all children under five should be weighed and the results should be recorded on the special cords. These cards will help you know whether or not the children have grown properly.

There are two bold lines on the growth chart. The first one shows the normal growth. That is the baby's birth weight is 2,5 Kgs, which rises to 5,5 Kgs by the age of 6 months, and to 7,5 Kgs by the age of 1 year. From then on, the baby will grow fairly slowly. He will gain weight at a rate of 2 Kgs/2 Years.

The growth curve lying lower than the Health Lines is a sign of mild malnutrition. If the growth curve is progressing very slowly and is lying lower than the Health Line all along it implies a moderate malnutrition. If the baby is sick, weak and looks very small in relation to his age he is suffering severe malnutrition, which damages both mental and bodily growth of the child. Consequently, it provides the grounds for diseases occurring and jeopardizes the baby's life.

Mild and moderate malnutrition can easily change into severe malnutrition. Malnutrition reduces the general resistance of the body against diseases and infections. hence, infections and diseases progress intensively in children who suffer malnutrition. The muscles and fat in children with high temperature are gradually consumed. If these children also have diarrhoea, then the foods they eat will be excreted without being absorbed and used in body building. Thus the children get weaker and weaker, and the malnutrition intensifies more and more and paves the way for other infections. If it is not treated and this stage, it may result in the baby's death.

**Causes**

The Three Main Causes of Malnutrition are:

1. Lack of the mother's milk.
2. Lack of the essential food (containing protein and energy)
3. Feeding with dried milk (through bottle)

The best source of protein and energy for the baby is the mother's milk. Normally a child should be breast fed until the age of two years.

Some babies are deprived of the mother's milk as soon as they reach the 6 months age.

The reasons are listed as follows:

- Either the mother has become pregnant and want to wean the baby.
- Or the mother likes feeding her baby with dried milk using the bottle.
- Or rarely some women wean their children in order to feed them with a better food which contains more protein, energy etc. In fact, they want to prevent malnutrition in their children.

The mother's milk is the best food for a baby but for the first four months of his life. And from then on some other supplementary food should be added to it. Children between 5th and 6th months of age may be given some semisolid and liquid foods mixed with the mother's milk. For example: Cerelac, bean, grains etc.

Some parents who cannot afford buying expensive foods may prepare a good food from inexpensive and easily available vegetables, fruits, cereals etc. weaning feeding should be started from the age of 6 months, with the food easily digested.

## Types of Malnutrition

a- Marasmus

It is a severe malnutrition due to not eating enough food. This child does not get enough of any kind of food. He/she looks very thin. His chest and face look bony. The muscles are wasted. The hairs are thin and easily broken. Children with Marasmus are always starving. In this type of malnutrition the child is in a total deprivation of protein, carbohydrates and lipids.

b- Kwashiorkor

The second type of malnutrition due to lack of protein. The food rich in protein are fish, bean, meat, egg milk etc.

The face and feet are swollen while the arms are amazingly thin, often with sores or marks on the skin. The hair appears red.

Though this child may be getting enough energy food, he has not been eating enough body-building foods, or proteins. Some children may have both Kwashiorkor and Marasmus at the same time. These children are thin with their face and feet swollen. All children should be weighed and the result must be recorded on their growth charts.

Note: Whenever, the concentration of protein in blood is less than normal some liquid leaves the blood vessels and diffuses through the extra cellular space. This action is called swelling.

**Management**

It differs with regard to the degrees of malnutrition and the baby's age. Children under 6 months of age with milk malnutrition should be taken care of as follows:

1. Advise the mother to breast feed her baby every three hours.
2. The mother needs more protein, vegetables, fruits and energy foods in her diet so that she will make plenty of milk for her baby.
3. Give warning to the mothers about the disadvantages of dried milk and feeding with bottle.
4. Advise the mother not to quit feeding the sick babies. If the mother doesn't have milk enough to breast feed her baby, she may give him weaning food and cow's milk daily providing they are prepared properly.
5. The baby should be weighed monthly

Children above 6 months of age, with mild malnutrition should be taken care of as follows:

1. Advise the mother to continue breast feeding her baby until he is two years old.
2. Ask the mother to take more nutritious food so that she will be able to lactate more.
3. The baby should be given weaning foods such as fruits, vegetables, egg, meat, fish etc, 4 times/day.
4. If she is not able to breast feed her baby, she can give him boiled cow's milk or powder milk using clean spoon and cup.
5. Examine the baby once a month, and record his height and weight each time. Ask the mother what kinds of food she gives to her baby.
6. Tell the mothers that a sick baby needs more food than a normal (healthy) one, and that they had better continue feeding their sick babies.

<u>Child Care in Severe Malnutrition</u>

a. Refer the baby who is unable to take soft and liquid food to the hospital. The children with Marasmus or Kwashiorkor but able to take soft and liquid foods can be treated at home or at the Health Center.
b. Feed the child 12-15 times a day.
c. Give the baby plenty of vegetables fruits, egg daily for one week.
d. Weigh the child daily. A child with Marasmus gains weight very slowly. If he is losing weight or he has got a respiratory tract infection, refer him to the hospital.
e. Children with vit A deficiency should be treated by vit A.

The children who are recovering need the following care:

a. Convince the parents that the child's disease was due to lack of protein and energy food.
b. Ask the mothers to give their children a variety of foods.
c. Ask the parents to bring the child to you once a week.
d. If you are working in a community with many cases of severe malnutrition, set up a food educational clinic. And teach the parents how to prevent malnutrition by observing the following 5 important steps:

    1. Breast feed until the age of 2-3 years. Don't use bottles.
    2. Start weaning feeding from the age of 4-6 months.
    3. Feed child at least 4 meals a day, children need to eat more often than adults because their stomachs are small.
    4. Continue to feed sick children.
    5. Give fresh vegetables and protein food to pregnant women and those who breast feed their babies.

## 2. Vit A deficiancy:

Vit A is a lipid soluble vitamin. This is present only in animal tissues (liver, egg, milk etc.). Provitamin A (carotines) are present in some vegetables such as carrot and dark green leafy vegetables and can be converted into vitamin A in the intestinal wall. Vitamin A deficiency is very common in developing and backward countries.

A patient with vitamin A deficiency has defective dark adaptation or night blindness.

### Night Blindness (Nyctalopia)

Causes

1. Lack of vitamin A in daily food.
2. Gastro intestinal disorders. In this case the child is unable to absorb the vitamin A even if his food is rich in vitamin A.

Signs and Symptoms:

The patient is unable to see things when it is a little dark (as in the evening).

Management

Should be referred to the hospital.

MCHO's Role In Preventing Night Blindness

To prevent vit A deficiency a well balanced diet including liver, egg, milk, carrot and green leafy vegetables should be given to the child.

Vit A overload in children causes: nausea, vomiting and anorexia.

## 3. Vit B Complex group deficiency

The following vitamins belong to this group:

| | | |
|---|---|---|
| Vit B1 | = | Thiamine |
| Vit B2 | = | Riboflavin |
| Vit B6 | = | Pyridoxine |
| Vit B12 | = | Cyano cobalamin |
| Vit PP | = | Niacin or Pellagra Preventing factor |

### a. Vit B1 Deficiency

Causes

Vitamin B1 content of polished rice is very low. Therefore, it is more common in rice eating communities. Vit B deficiency results in beri-beri.

Signs and Symptoms

Nausea, vomiting, tremor, convulsion, swollen hand and feet, cyanosis heart failure.

### b. Vit B2 Deficiency

Symptoms are confined to the skin and mucosa: There may be glossitis (sore, red, glazed, smooth tongue), cheilosis (cracking at the angle of mouth), dry skin with a coarse texture, dermatitis (in some parts of the body). There may be watering of eyes and photophobia Growth and development of the baby is retarted.

### c. Vit B6 Deficiency

Failure to thrive, hyperirritability, anemia, nausea. vomiting and convulsions.

### d. Vit B12 Deficiency

Since this vitamin has an important role in synthesis of protein and blood, its deficiency results in anemia, retarded growth, convulsions and glossitis.

### e. Vit PP Deficiency

The symptoms include gastro-intestinal disorders (diarrhoea), neurological manifestations (muscle weakness, mental retardation, loss of memory) and involvement of skin (dermatitis, usually in the form of pigmented cracked skin on those parts of the body which are exposed to sunlight, such as neck and back of hands). Vitamin PP deficiency is more common in people whose staple diet is maize, instead of wheat.

### f. Acid folic Deficiency

The predominant symptoms are diarrhoea and anemia.

## 5. Vit C (Ascorbic Acid)

### Introduction

This vitamin is abundantly available in the nature. Its main sources are:

- All citrus fruits such as lemon, orange, sour orange.
- Vegetables such as tomatoes, turnip, spinach etc.
- Kidney and liver.
- Human milk is rich in vit C, while cow's milk and synthetic milks contain less. Therefore, children fed with cow's milk or synthetic milk need to be given some additional vit C. vitamin C is easily spoilt by heat. Severe vitamin C deficiency causes a diseases called "Scurvy".

### Signs and Symptoms

At the beginning the child is hyperirritable, ill-natured. He aches all over, due to the bone, muscle, and articular hemorrhage. This pain causes him a special position which is called "Frog legs" position.

Skin hemorrhages appear in the forms of red and purple blotches, Bleeding gum is common in teethed children. The resistance of the body is very low in these children so they are frequently involved in different diseases.

### Management and Prevention

To prevent this disease, the sources of vit C should be revealed to the people. For example, fruits vegetables etc. which are rich in vitamin C. Advise the people to eat them raw, and if they cook them ask them not to heat them too much. And while cooking, the cooking pot should be closed tightly so that not to waste a lot of vitamin C through evaporation. For treatment use vit C pills.

## 6. Vit D Deficiency

### Introduction

Vitamin D deficiency causes a bone disease called Rickets (in children) and osteomalacia (in adults).

Sources of vit D are: meat, fish yolk, vegetable oil etc.

#### Rickets

*Causes*

Osteomalacia in children is called "Rickets". Children who remain indoors through the winter or put on many clothes while going outdoors in general do not receive adequate quantities of vit D without some weaning therapy in the diet.

In our country (Afghanistan), where the people believe in hiding the children from the public eyes, Rickets is very common.

Milk (of any kind) is poor in vitamin D. Therefore, rickets may be seen in children who are just milk fed for a long time.

Signs and Symptoms

At the beginning, the child feels uneasy and sweats a lot. The hairs on the back part of the head turns fragile and the membranous bones of the skull, i.e. occipital and parietal soften. The forehead appears projected. Fontanils which are supposed to be closed by the age of 18 months remain open. Costochondral junctions become prominent to give appearance of a rosary. Bowed back bone, in infated belly and flaccid muscles are other symptoms of Rickets.

Prevention

The mothers should be instructed to expose their children to the sun frequently and regularly. The main sources of vitamin D should be revealed to the people so that they can profit from them. Ask the mother to give their children the foods rich in vitamin D.

# VII. COMMON INFECTIONS OF THE CHILDREN

## 1. Croup

### Definition and causes

It is defined as an infection of the middle part of the respiratory tract. The child has difficulty in breathing due to the swollen larynx. The older children are more often attacked compared to the younger ones.

### Signs and symptoms

At the beginning the child has a minor respiratory tract illness (nasal discharge and sore throat). But it intensifies rapidly within the course of a few hours, and worsens his general condition.

### Medical History

Ask for how long he has been involved in this respiratory tract infection. That is cough and stridor followed by dyspnea.

### Physical Examination

The child has a craving breathing because of the swollen larynx, and dyspnea, subcostal recession is another symptom, which also implies dyspnea. Injudicious attempt to examine the throat with a spatula may at times, cause death by sudden reflex spasm of the larynx. Therefore, a child with croup requires a serious care.

### Complications

Since a swollen epiglottis may cause a respiratory tract obstruction, as soon as a red and swollen epiglottis is viewed (while examining the throat) the child should be referred to the hospital.

### Management

Ask the mother to provide the child some boiling water so that he can breath the steam. (Look after him so that not to burn himself). Advise the mother to give her child a liquid diet every three hours using a cup or a spoon.

## 2. Mumps

### Definition and causes:

It is defined as viral infection of the salivary glands, which are located close to the jaw angles. It attacks almost all people in childhood.

### Signs and Symptoms

The child complains of pain near the lobe of ear and difficulty in chewing. The area behind the angle of jaw appears full and parotid swelling may be noticed.

**Physical Examination**

Parotid gland is painful and swollen. This symptoms will last one week.

**Complications**

It may cause meningitis and infertility.

**Management**

Provide the patient peace so that he can relax. Give him a liquid diet along with plenty of liquids. Aspirin is proven useful.

## 3. Lice

**Causes**

It is a small insect living on the hairy parts of the body. There are three kinds of lice.

1. Head lice
2. Clothes lice
3. Pubic lice

They lay eggs and transmit to others through close contact, clothes and sexual intercorse (pubic lice).

### Signs and Symptoms

Severe itching commonly located on the head, body and pubic area.

### Medical History

Usually other family members are also involved.

### Physical Examination

Particular parts of the body should be examined. Close to the hair stem scratches and white eggs (called mite) can be viewed.

### Complications

Frequent scratches may cause some skin infections e.g. impetigo.

### Management

Treat all of the family members by benzyl benzoate. Wash clothing and bedding, iron them or expose them to the direct sunlight. Treat skin infections (if any).

## 4. Mastoiditis

### Causes

It is one of the complications of Otitis Media. It is usually seen in the patients who have already had bacterial otitis media. It is defined as an infection of the mastoid bone. Some patients may be asymptomatic.

### Signs and symptoms

Severe pain of the mastoid bone plus fever and headache.

### Medical History

Ask the patient whether he had an earache or discharges from ear one month ago. Because, discharges lasting more than two weeks suggest mastoiditis.

### Physical Examination

- Examine the ear for discharges.
- The area behind the ear will be swollen, red and tender.
- Hit the aforementioned area with a finger slightly. If it is inflamed, the patient will feel a severe pain

### Complication

If the problem goes untreated a chronic status can develop.

### Management

Give him some aspirin and refer him to the hospital as soon as possible.

# Chapter X

# VACCINATION

## IMMUNITY

If you have measles, you cannot have it again. Your body has become immune to measles.

When you have an infection, your body learns to make antibodies against the micro-organism (virus or bacteria) that causes the infection.

Those antibodies kill the organism, and prevent it from growing in your body again.

The antibodies work only against that particular infection-not against others.

For the first few months of life, a baby is protected against many infections by its mother's antibodies.

These come from the mother's blood, and cross the placenta into the baby's body before birth.

There are also antibodies in breast milk, especially in the first milk, called colostrum, which help to protect a baby against diarrhoea and other infections.

At birth, a baby begins to make its own antibodies.

## I- IMPORTANCE OF VACCINATION

Many children die of many diseases and most of them die of these diseases, which can be prevented. A large number of children die before one year of age little less number die before completing two years of life.

There are six important infectious diseases that are very serious and can kill or bough children even though some children survive and become immune. To save the children from dying or the new borns from Neonatal tetanus and mothers from tetanus, it is very necessary to vaccinate the mother before the child is born.

1. Poliomyelitis.
2. Measles.
3. Diphtheria.
4. Pertussis (whooping cough).
5. Tetanus.
6. Tuberculosis (T.B).

We have got vaccines for these diseases if given to the children according to the schedule recommended for each vaccine, the children response and the child's body produces antibodies without getting the disease. The child becomes protected against the disease without becoming ill.

## II- INTRODUCTION OF SIX TARGET DISEASE:

THE SIX TARGET DISEASES ARE:

- Tuberculosis
- Diphtheria
- Tetanus
- Whooping Cough
- Measles
- Poliomyelitis

## 1. Tuberculosis

TB is a serious disease usually located in the lungs causing productive cough, sometimes blood streaks sputum, loss of weight, anorexia, weakness, and night sweats. TB is a curable disease but it needs a long management (from months to years).

Patient who does not follow his prescribed treatment properly will experience his death after bearing a long lasting treatment. TB is transmitted from an infected person to other people through air droplets, or spit sputum. (for complete information see chapter XI)

## 2. Diphtheria

**Definition and Causes:** This is an acute infectious disease of childhood. It is transmitted by contact or through droplets from an infected person or carrier.

**Signs and Symptoms**

A few days after exposure, fever and sore throat followed by formation of an ashen or white membrane over the larynx which may sometimes result in respiratory failure and death

## 3. Tetanus

SEE CHAPTER IX

## 4. Pertussis (Whooping Cough)

**Definition and cause:** Pertussis is a highly contagious acute infection disease of the respiratory tract. It is also very common in young children. The infection is transmitted by droplets from the infected person.

**Signs and Symptoms**

It starts with a dry cough which becomes more severe and frequent with the passage of time. Then there is a rapid succession of cough, coming in an explosive manner; the child, may appear choked, (unable to breath, looks anxious and has a suffered dark blue face). The bout of cough terminates with a long inspiratory crowing sound or whoop the paroxysm of cough terminates by vomiting.

## 5. Measles

### Definition

Measles is a severe common disease among unvaccinated children. It is most severe in poorly nourished children and infant. It can spread quickly. Measles can pave the way for Pneumonia which may terminate the child's life.

### Signs and Symptoms

Measles begins like a bad cold with a high fever running nose, red watery eyes, cough and general malaise. On the third or fourth day a pink rash appear on the face and neck and quickly spreads to cover the entire body. It lasts for a few days.

The ideal time for administering the measles vaccine is between the 9th and 12th months of life. If the child is not vaccinated due to some reasons between 9th and 12th month of age, he can get the vaccine until 5 years. Inform the mother that the child will experience a mild fever and pale skin rashes, that imply the state of gaining immunity against measles. These symptoms are temporary and will disappear soon.

## 6. Poliomyelitis

A contagious disease and starts with a headache or, sometimes with nausea and vomiting. The headache and fever intensify parallel to the progress of the disease and may eventually result in death.

The limbs may weaker to the degree at which the child will be unable to move. Such a case should be referred to the rehabilitation center as soon as possible.

# III- THE COLD CHAIN

Vaccines must stay cold all the way from the manufacturer to the child. The equipment and the people that keep vaccines cold from the manufacturer to the child are together called THE COLD CHAIN.

Before vaccines reach the health center they must be:

- Collected quickly from the airport;
- Stored at the correct cold temperature in the refrigerator at the Central Store, the Regional Store, and the District Store;
- Kept cold during transport from one store to another.

Then the vaccine arrives at your health center in good condition.

After vaccines reach the health center you must:

- Keep them at the correct cold temperature in your health center refrigerator;
- Carry them to the immunization session in a vaccine carrier with ice;
- Stand the vaccines on ice while you immunize the children.

| |
|---|
| The cold chain is made of people as well as equipment. |

# IV- INTRODUCTION OF AVAILABLE VACCINES FOR PREVENTION OF SPECIFIC DISEASES

## 1. B.C.G

The vaccine which helps prevention of Tuberculosis (TB) if due to some reasons the newborn cannot be vaccinated, the vaccine may be administered to him at any time after birth until 15 years.

By checking the child's arm for a scab or scar, MCHO can easily know whether or not the child needs to be vaccinated.

B.C.G is administered through injecting a certain measured amount of it in the skin on the upper part of the right arm.

During the injection a papule appears which disappears in 1-2 hours. After two weeks a red and sensitive swelling appears which ulcerates afterwards. Then, there is a scar. After the scab comes off there is a scab. This is a normal reaction of which the mothers should be aware. Ask the mothers not to touch or apply any kind of oil, medicine or bandage to the administration site.

**Giving BCG vaccine: Syringes and needles**

The dose of BCG is very small (0.05 ml). To measure and inject such a small dose accurately, you must use a special small syringe called a 'one dose' BCG syringe.

You inject BCG intradermal, that is, into the top layers of the skin. To give an intradermal injection correctly, you must use a short, very fine needle, (10 mm, 26 gauge).

**The 'one dose' BCG syringe**

This syringe can measure only 0.05 ml or 0.1 ml of vaccine. The needle end of the barrel is very narrow-like and extra long adaptor.

The Plunger is narrow in the narrow part of the barrel, and wide in the wide part of the barrel.

The vaccine goes into the NARROW part of the barrel only. But you read the scale along the WIDE part of the barrel-at the point where the wide part of the plunger joins the narrow part of the plunger.

**Giving the BCG vaccine: positioning the baby and loading the syringe**

How to position the baby

When you give BCG to a new born baby, you do not have to restrain it very much.

(When older children, show the mother how to hold them in the same way that they hold them for measles vaccine.)

- Let the mother hold the baby, and free its arm from the clothes.
- Hold the baby's arm with your left hand, while you inject with your right hand.

To load the BCG syringe

- Fix the needle onto the syringe very firmly.
- Draw a little more than 0.05 ml of reconstituted vaccine into the syringe.
- Put the vaccine back onto the ice pack.
- Point the needle upwards, and expel any air bubbles and extra vaccine from the syringe until there is exactly 0.05 ml of vaccine enough for one dose.

**Giving BCG vaccine: the intradermal injection**

Reconstitute the vaccine, position the child, load the syringe. The usual place to inject BCG now is the upper part of the left arm. However, you can also use the upper part of the right arm, or the left forearm. Where you inject depends on your programme.

- If you wish, clean the skin with cotton wool and spirit or water.
- Hold the child's arm with your left hand so that:
  Your left hand is under the arm;
  Your thumb and fingers reach around the arm and stretch the skin tight.
- Hold the syringe in your right hand, with the bevel facing up towards you.
- Lay the syringe and needle almost flat along the child's arm.
- Insert the tip of the needle into the skin-just the bevel and a little bit more.
  Keep the needle FLAT ALONG THE SKIN, so that it only goes into the top layers of the skin.
  Keep the bevel facing UPWARDS
  Do NOT push too far, and do NOT point downwards, or the needle will go under the skin. Then it will be a subcutaneous instead of an intradermal injection.
- Now put your left thumb over the needle end of the syringe to hold it in position.
  Hold the plunger end of the syringe between the index and middle fingers of your right hand and press the plunger in with the right thumb.
- Inject 0.05 ml of vaccine, and withdraw the needle.
  Make sure that the adaptor does not leak. If the adaptor leaks, you must fix the needle on more firmly.

If you inject BCG intradermal and correctly,

There will be a clear, flat-topped swelling in the skin, like a mosquito bite. The swollen skin may look pale, with very small pits.

If you inject BCG too deeply under the skin by mistake,

The skin does not swell, or there is a round bump UNDER the skin. When you inject, you may feel that the vaccine is going in too easy. You have to push the plunger harder for an intradermal injection.

What to do:

- Stop injecting, and correct the position of the needle.
- Give the remainder of the dose, but no more.
- If the whole dose has already gone under the skin, consider the child injected.
- Do not repeat the dose.
- Follow the child up carefully, because side effects, for example abscess and enlarged glands, are more likely.

**After you have given the injection**

Draw a little water through the needle. Then separate the needle and the plunger and barrel of the syringe, and put them to soak in your bowl of water for used instruments.

Clean and resterilize them before you use them again.

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REMEMBER FOR BCG

Give 0.05 ml once soon after birth
Inject into the skin, not under it
Protect the vaccine from sunlight
The mother should be avoided to rub injected area

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## 2. D.P.T

This is a combination of three vaccines and produces and immunity against three diseases, i.e. Diphtheria, Pertussis (whooping cough) and Tetanus.

A complete course of this vaccine consists of three doses, which should be administered within three months. That is a single dose per month. An incomplete course will fail to produce an effective immunity against the diseases.

Administration of DPT should be started form the age of 6 weeks. Although, it may be given at any age until the age of 2 years. Totally four doses have to be given by the age of two years.

**DPT and tetanus toxoid:**
**loading the syringe**

**Before you load the syringe**

- Check the label.
- Shake the vial, so that the sediment mixes completely into the liquid. If the vaccine is not well mixed, you may give the wrong dose.
- If you think that the vaccine was frozen and thawed, check for damage
- Remove the center of the metal cap using a metal file.
- Stand the vaccine in a cup of ice, or on an ice pack on the table.

**Loading the syringe**

- Take a sterile 0.5 ml (or 1 or 2 ml) syringe, and an intramuscular needle. (Use the same needle to fill the syringe and to inject the child or woman.)
- Draw 0.6 ml of vaccine into the syringe-that is a little more than you want to inject.
- Remove the needle from the vial.
- Point the needle upwards Expel air bubbles and a little of the vaccine until exactly the correct dose remains in the syringe.

**Giving DPT vaccine: Position of the baby and intramuscular injection**

**How to position the baby**

- Sit the baby on the mother's lap.
- Her left arm goes around the baby, to support its head, and to hold its outside arm.
- The baby's inside arm is tucked away round the mother's body.
- The mother's right arm holds the baby's legs very firmly.

**The intramuscular injection for a child**

The best place for intramuscular injections for children is in the thigh.

If you inject into the buttocks at the wrong place, you may cause paralysis of the child's leg.

## IMMUNIZATION IN PRACTICE

So, in many countries, health workers prefer not to inject into a child's buttocks. You can give intramuscular injections into the arm. You can use the arm to give TT to adults. But the arm muscles are too small in young babies.

- Put your finger and thumb on the OUTER part of the middle of the child's thigh.
- STRETCH THE SKIN FLAT between your finger and thumb.
- Press the top of the plunger with your thumb to inject the vaccine.
- Withdraw the needle, and press the site with cotton wool.

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REMEMBER FOR DPT

Give 0.5 ml, three times, four weeks apart
Intramuscular injection into the child's thigh
Do not freeze the vaccine

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## 3. D.T

DT is administered to the children who have either passed pertussis or reached the age of two years. It is injected to the child to immunize him against two diseases (Diphtheria & Tetanus) which have already been explained. Its complete course is two doses with a span of one month between them. One single dose cannot immunize the child against Diphtheria & Tetanus.

The mother should be informed about the normal reaction of the body against the vaccine beforehand. That is the site of vaccine will be little painful and the child may have a mild fever for a few days after being vaccinated, none of which is a cause for worry.

The procedure of giving D.T is similar to D.P.T.

## 4. T.T

Tetanus is common cause of new born deaths in the village. All married women should have two TT (Tetanus Toxoid) injections no later than their first pregnancy, at least one month apart. Thereafter they should be given on T.T. a year until they have received a total of five injections. This is one method of preventing tetanus in both the new born and the mother. Tell pregnant mothers where to obtain the Tetanus Toxoid injections.

**Giving tetanus toxoid intramuscularly**

Prepare the vaccine in the same way as for DPT. You give tetanus toxoid by intramuscular injection. The best place to give TT to a woman is on the outer side of her left upper arm.

- Use your left hand to squeeze up the muscle of the arm.
- Push the needle through the skin deep into the muscle.
- Inject the vaccine.
- Withdraw the needle, and press the site with with cotton wool.

REMEMBER FOR TT

Give 0.5 ml at each dose
Give two doses at least four 2 weeks apart, to start with, and one dose for each pregnancy
Give it by intramuscular injection
Do not freeze the vaccine

## 5. OPV (Oral Polio Vaccine)

It protects the children form contracting a severe disease called.

OPV is administered orally. The first dose is given right after birth and the three subsequent doses are given later one month apart. The second dose should be administered at the age of 6 weeks and followed by two booster doses (third and fourth).

**How to prepare and give oral polio vaccine (OPV)**

OPV may come either in a plastic dropper bottle, or in a glass vial with a dropper in a separate plastic bag.

**To use the vaccine from the dropper bottle**

- Remove the cap of the dropper.
- Stand the dropper bottle on ice.

**To use the vaccine from the glass vial**

- Remove the metal cap of the vial completely.
- Remove the rubber stopper.
- Cut the plastic bag which contains the dropper.
- Fit the dropper onto the open vial.
- Stand the vial on ice.

REMEMBER FOR POLIO VACCINE

Dose-two drops, four times
One dose at birth, one dose at six, ten and fourteen weeks of age
Keep vaccines in a cup of ice Throw away opened vaccines after one session

## 5. Measles Vaccine

This vaccine immunizes the child against 'Measles'. A child who has not been vaccinated during the time between his second and fifth years of age should be given at least two doses one month apart.

Giving measles vaccine: positioning the baby and loading the syringe

How to position the baby

Most health workers inject measles vaccine into the child's LEFT upper arm.

In some programmes, they use right arm. Here we describe how you inject into the left arm.

- Sit the baby on the mother's lap.
- Tuck his right arm away round her body.
- Mother's left arm goes around the baby, to support his head and shoulder.
- Her right arm holds his legs out of the way and her right hand holds his left hand.

To load the syringe

- Take a sterile 0.5 ml (or 1 or 2 ml) syringe, and a subcutaneous needle.
- Use the same needle to load the syringe and to inject the child.
- Withdraw 0.6 ml of the reconstituted measles vaccine into the syringe.
- Put the vial of vaccine back into the cup of ice.
- Point the needle upwards, and expel any air bubbles and extra vaccine from the syringe until there is exactly 0.5 ml, enough for one dose.
- Give the vaccine to the child immediately.

---

REMEMBER FOR MEASLES

Give 0.5 ml once at nine months of age
Subcutaneous injection into the child's arm
Keep the vaccine on ice

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## V- IMMUNIZATION SCHEDULE

An immunization schedule must contain the following information:

- Which vaccine should be administered?
- The ideal age for the first shot of each vaccine.
- The number of doses and indications of each vaccine.
- The minimum interval between two shots.

Remember that there is no maximum interval between two shots of any vaccine. Even if the previous doses have been given one year ago, the course of OPV and TT should not be started from the beginning. The subsequent doses should be administered at the minimum interval.

All children below the age of 2 years, who have come to the AHC or BHC for any reason, should be:

- Registered in the registration books related to their villages.
- Examined and checked for vaccination (including measles vaccine).
- Administered vaccines (according to the Immunization Schedule and their needs).
- Followed up until the administration course for each vaccine is completed.
- Checked for tetanus vaccine. If needed, TT should be administered (usually 5 injectable doses.)

| Immunization Schedule for Children Under 24 months of age | | | |
|---|---|---|---|
| Does | Administration Route | Vaccine | Time |
| 0.1 ml | Intradermal (I.D) | B.C.G. | At birth |
| As prescribed | Oral | O.P.V. | |
| 0.5 ml | Intramuscular (IM) | DPT-I | 6th week |
| As prescribed | Oral | OPV-I | |
| 0.5 ml | IM (Intermuscular) | DPT-II | 10th week |
| As prescribed | Oral | OPV-II | |
| 0.5 ml | IM (Intermuscular) | DPT-III | 14th week |
| As prescribed | Oral | OPV-III | |
| 0.5 ml | SC (Subcutaneous) | Measles | 9 Months |
| 0.5 ml | IM | DPT | 20th month |
| As prescribed | Oral | OPV | Booster |

| Immunization Schedule for unvaccinated Children aged 2-5 year | | | |
|---|---|---|---|
| Dose | Administration Route | Vaccine | Time |
| 0.5 ml | IM (Intermuscular) | DT-I | 1st month |
| As prescribed | Oral | OPV-I | |
| 0.5 ml | IM (Intermuscular) | DT-II | 2nd month |
| As prescribed | Oral | OPV-II | |
| 0.5 ml | SC (Subcutaneous) | Measles | As soon as possible |
| 0.1 ml | IM (Intermuscular) | BCG | As soon as possible |

| Immunization Schedule for Married Women between the ages of 14-44 years | | | |
|---|---|---|---|
| Dose | Administration Route | Vaccine | Time |
| 0.5 ml | IM (Intermuscular) | TT-I | As soon as possible |
| 0.5 ml | IM (Intermuscular) | TT-II | After 4 weeks |
| 0.5 ml | IM (Intermuscular) | TT-III | After 6-12 months |
| 0.5 ml | IM (Intermuscular) | TT-IV | After 12 months |
| 0.5 ml | IM (Intermuscular) | TT-V | After 12 months |

# VI- MCHO'S ROLE

## a. Health education about vaccination

Since the spreading of information related to the Immunization Program all over the catchment area requires a hard and heavy work, the activities needed for this purpose should be shared among all MCHOs in that area. To adopt the Immunization Program effectively, you will need to encourage and convince the people to present their children for vaccination. To achieve this goal, you can use the following methods (or those similar to them):

1. A medical survey of the area will help you to distinguish the families with under 5 years old children. Meanwhile, you can explain the advantages of immunization to the parents and encourage them to bring their children for vaccination. Make sure that you have told them when and where to bring their children.

2. Make a list of the persons who can encourage the parents to have their children vaccinated. To obtain help from those people make a plan before hand.

3. Ask the headmaster to give you the opportunity to discuss Immunization with the students. After the discussion ask the children (students) whether they have sibling younger/older than them. If yes, ask them to discuss the vaccination time with their parents.

In larger villages you may ask the older students to help you spread the information related to mass vaccination. You may also discuss the date, time and the place of vaccination with them.

## b. Vaccination:

You may share one or more of the following activities:

1. Starting the clinic
2. Registration
3. Recording of vaccination
4. Answering questions

### 1. Starting the clinic

The best place to start the mass immunity activities in will be a large shady room. Because the vaccines are supposed to be kept away from the direct sunlight, in a cool place. Also to prevent crowding and mistaking one for another, the room should be large enough.

Before you make the mass immunity timetable, make sure to provide some necessary equipment and furniture such as: three tables, three chairs, three or more beds, stove, oil (or a fire place), soap, water and washbowl.

Since it will be very crowded on the vaccination day, the MCHO should arrange the program in a better way so that no child pass up his vaccination chance. Children are very eager to watch the activities form a closer distance. To keep them away from the vaccination site, MCHO is to provide them two beds in the waiting spot.

### 2. Registration

First of all the children should be registered. After filling in the immunity card, the registrar should guide the child to the vaccination site. Be sure to tell the mother to keep the card in a safe place and to have it with her on the next mass vaccination day.

Remember, on the mass vaccination day the children need your guidance.

### 3. Recording of vaccination process

The vaccines administered to the child should be recorded on his immunity card.

### 4. Answering questions

One of you should explain the normal reaction of the body such as a painful administration site, a mild fever etc. to the parents. Make sure that the parents understand that the children will experience some trivial complaints, after vaccination.

Ask the parents to give their children Paracetamole, according to the following table, as soon as the aforementioned symptoms appear.

| Time | Dose | Age |
|---|---|---|
| Twice a day | 1/8 tablet | Under 6 months |
| Twice a day | 1/4 tablet | 6 months - 2 years |
| Twice a day | 1/2 tablet | 3 - 7 years |

Advise the parents to take their children to the health center if the symptoms don't disappear within two days or if some other symptoms appear.

Clean up the equipment and furniture and maintain them, for you will need them for while starting subsequent Immunization activities

## c. Follow up

After the immunization session, try to pay short visits to all of the parents whose children have been vaccinated. Discuss the normal post vaccination reaction of the body, meanwhile prescribe paracetamole to the child according to the table.

Before starting the next mass vaccination campaign, you will need to make a list of the unvaccinated children. While starting the subsequent mass immunization activities, you should have the Medical survey forms with you. Meet with the parents whose children have not been vaccinated. Ask the reason cautiously. If they are opposed to have their children vaccinated, listen to the reason, they offer patiently. Encouraging and convincing the parents of this kind to have their children vaccinated require special cleverness and soberness. Maybe it will help you to have a prominent member of the health committee or any other respectable person of the community with you while visiting these parents.

# Chapter XI

# COMMON CLINICAL PROBLEMS

# I- RESPIRATORY SYSTEM

## 1. Common cold

### Definition

This is a viral disease. It infects ear, nose, and throat. This disease can easily spread from person to person through speaking, coughing, and sneezing. It will heal on its own without treatment.

### Signs and Symptoms

Some people with common cold may complain of these symptoms: Nasal discharge, throat's irritation, dryness and irritation accompanied with mild fever, sneezing, hoarseness and sometimes cough may also occur.

### Management

- Advise the patient to take warm fluids.
- Give him analgesic drugs.
- Encourage the patient to rest.

## 2. Tonsillitis

### Definition

Children most frequently suffer from tonsillitis. The lymph tissue in the back of the throat can be infected with several kind of bacteria and virus. The tissue swells and becomes inflamed. The germ which causes rheumatic fever, cause tonsillitis first. Throat infection spreads easily form person to person through coughing, sneezing and close contact.

### Sign and symptoms

Tonsillitis often causes a sudden onset of cough high fever, chills, sore throat and difficult swallowing. The fever and throat pain is usually worse in bacterial tonsillitis than viral tonsillitis.

### Management

- Advise patient to rest.
- Reduce the pain and fever

- Give the patient aspirin, to take every four hour and gargle with warm salty water. The pain of throat will be reduced.
- Give an antibiotic.
  Penicillin will shorten the course of the illness. It prevents rheumatic fever.
  Give an antibiotic by mouth every 6 hours.

**Prevention**

- Tell the patient's parents to be sure to bring any members of the family with these symptoms to the clinic. All the people living in a house with tonsillitis patient are at the risk of catching the disease.

- Tell the patient family and schoolmates about the roles of personal and environmental hygiene and about how diseases spreads.

## 3. Acute Bronchitis

**Causes and definition**

In acute bronchitis trachea will be inflamed and produce extra fluids. It clears without treatment. If the person has a history of lung disease, acute bronchitis can be very serious.

**Signs and Symptoms**

The patient with acute bronchitis complains of a severe cough which sometimes produces green or yellow sputum. He often has a fever and discomfort in the back of sternum from the strain of coughing.

Fever and cough are the major presenting complain of acute bronchitis. Acute bronchitis starts with discomforts fever, and runny nose. Acute bronchitis clears within one or two weeks.

**Management**

- Rest and eat nutritious food.
- Drink extra fluid.
- Give aspirin every 4-6 hours.
- Consider giving elderly patients or infants with a history of lung disease, procaine penicillin.
- Avoid smoking.

## 4. Bronchial Asthma

### Cause and definition

Bronchial asthma occurs when the bronchiole contract. It makes dyspnea and difficult breathing. During breathing we hear and especial sound which is termed wheezing. The patient feels healthy except when the bronchial asthma attack occurs. Asthma can be caused by many kinds of parasites, including ascaris.

### Signs and symptoms

The attack of Branchial asthma often occurs at night. The patient suddenly has difficult breathing. The patient looks agitated coughs and wheezes. Asthma attacks sometimes follow a viral respiratory infection sometimes they are cause by tree or grass pollen. The attacks may occur more frequently at on year. The patient nearly always has a past history of similar asthma attacks. Check the patient's breathing. Often the chest is expanded and the patient has trouble in forcing air out of his lungs.

### Cause and complications

Asthma is a chronic condition and may last for years. Some patient's have only one or two attacks each year The more dangerous complication of asthma occurs when treatment cannot stop the wheezing. The patient die from exhaustion and heart failure.

### Management

- Expose the patient to the open air.
- Give fluids
  Patients with asthma need extra water. Water makes the secretions in the lungs thin and easy to cough up. Give the patient at least one glass of fluid every one to two hours.
- Treat infections
  If you find signs of a bacterial infection in the throat or chest, treat the patient with an antibiotic. Avoid penicillin or ampicillin. Patients with asthma may be allergic to these drugs. Use erythromycin or tetracycline.
- If you are suspected that the patient has asthma has intestinal worm (especially ascaris) prescribe the proper drug.

## 5. Pneumonia

### Definition and causes

Pneumonia is a disease of the lungs. It causes fever, coughing, chest pains and trouble breathing. Diseases such as colds, measles and whooping cough can lead to pneumonia, especially in children. Pneumonia often affects young children. Pneumonia can lead to serious complications, especially when it occurs in a malnourished child.

### Signs and symptoms

Patients with pneumonia commonly complain of high fever, chills, severe coughing, difficult breathing and chest pain. Fever and chills may be the first symptoms some patients have..

A person with pneumonia coughs up yellow sputum with small lines of blood. The patient will have severe chest pain especially when he coughs or takes a deep breath. In this case, he will complain of difficult breathing. The patient has flaring nostril and rapid breathing (75/min). In severe cases the patient has chest indrwing and cyanosis.

With a proper treatment the condition of a patient with pneumonia should begin to improve within 24 - 48 hours. However, he may not be completely well for several weeks. Without proper treatment pneumonia may cause an abscess to develop in the patient's lungs.

### Management

- Observe the patient for at least 24 hours. Pneumonia is very serious, especially in children. Keep the patient at the health center for at least 24 hours after you begin treatment. You will be able to see the patient's progress during that time.
- Put light and loose clothes on the patient and effort be made that the patient breaths fresh air containing much oxygen. If the pulsation tends to increase and intercostal retraction is inward, refer the patient to a doctor.
- Urge the patient to drink extra fluids. Fever and rapid breathing lead to less of fluid from the body. Insist that the patient drink at least one glass of warm water or other fluid every two hours.
- Manage the fever and cough. When your patient has very high fever, wet towels to bring high temperature down. Give him aspirin or paracetamol every four hours.
- Give the patient antibiotic like penicillin procaine. Ampicillin or co-trimexazol.
- Improve the patient nutrition.

- Encourage the family to feed the patient nutritious foods. If the patient is a child who takes breast milk, have him continue to take it.
- Refer the patient to a hospital.

If the patient has cyanosis, chest in drawing or the patient is not able to drink or eat and also if the patient has not began to improve within 24 hours after beginning treatment refer him to a hospital.

## 6. Tuberculosis

### Definition and causes

In many countries more of the population is infected with tuberculosis. Tuberculosis quickly spreads when many people live crowded together. Tuberculosis bacteria spread through coughing sneezing and close contact. Tuberculosis bacteria grow very slowly. The bacteria from primary tuberculosis can live in a person's body without symptoms for many years. Tuberculosis bacteria also affect abdomen, brain and bones.

### Signs and symptoms

Primary tuberculosis in children often occurs with no symptoms, but you may find some fever, loss of appetite, loss of weight, tiredness and coughing.

With developing of tuberculosis bacteria, the patient may have a fever in the last afternoon, loss of appetite, loss of weight, feel tired. Blood in the sputum is a very important symptom of tuberculosis.

### Management

- Teach the patient and his family about tuberculosis.
- The patient and his family must cooperate in treatment of tuberculosis. Explain to them that treatment takes along time. Be sure they understand that the medicine must be taken regularly.
- Follow up on each patient you treat for tuberculosis.
- Give the proper medicine.
- Urge the patient to eat a nutritious diet.
- Follow the patient's progress.

Treatment for tuberculosis takes at least one years. During that time the patient should visit the health center every month. At each visit record his symptoms, weight and drugs he takes. The patient weight will give you and excellent guide to his progress. if the patient continues to lose wight, send him to a hospital.

- Check the family for tuberculosis. Examine all family members for signs and symptoms of tuberculosis. If anyone coughs up sputum send him to hospital for examination.

**Prevention**

- Patient's utensils must be specified and boiled and his beds and clothes should be exposed to sun-shine.
- Contact of the patient with other family member needs to be restricted.
- BCG vaccine, may provide some protection.
- Ask anyone with a cough that lasts for a month or more to go to the health center. Ask anyone who coughs sputum to go to the health center.

- Ask people in your community to cover their mouths whenever they cough or sneeze. Then they will not spread as mush illness in the air. They can cover their mouths with their hand or with a piece of paper or cloth.

Ask people who cough to spit into a container. They should not spit on the ground.

Ask them to burn the paper or the container or to wash the cloth so the illness does not spread to others. Then they should wash their hands.

Also ask people to cough down toward the ground. Then they will not spread as much inllness in the air.

# II- CARDIO VASCULAR SYSTEM

## 1. Hypertension

### Definition

When a person's blood pressure is regularly above normal limits, he/she has high blood pressure, or hypertension. Either systolic, diastolic or both readings may be elevated. These are the usual values for mild, moderate, and severe hypertension:

| | *Systolic pressure* | *Diastolic pressure* |
|---|---|---|
| Mild Hypertension | 140 to 16 | 90 to 104 |
| Moderate hypertension | 160 to 180 | 105 to 125 |
| Severe hypertension | over 180 | over 125 |

Hypertension most frequently occurs in adults older then thirty.

### Signs and symptoms

Presenting complaint: .The patient rarely has a presenting complaint associated with hypertension. You will find hypertension in patient when you take his blood pressure.

### Medical history

People with hypertension are usually between 30 to 50 years old. They may have a history of headache and nosebleeds. Ask whether the patient has a family history of hypertension or heart disease.

### Physical examination

In early case of hypertension, the only sign you will find is high blood pressure. The patient's pulse may be fast.

### Course and complications

High blood pressure damages the heart, the kidneys, and the brain. Some patients develop very high blood pressure. They have severe headache, poor vision. They also vomit and lose consciousness.

**Management**

- Lose weight:
  Tell overweight patients that excess weight makes blood pressure worse. Blood pressure will drop as an overweight person loses weight.
- Avoid salt:
  Salt in the diet also increases blood pressure. Urge the patient to eat less salt food.
- Eating of garlic with less salty food also decreases blood pressure.
- The patient should be advised to take food with low amount of oil.
- Follow up the patient weekly:
  Follow up the patient's progress for the first 3 months. At each visit, take his blood pressure at least twice. Be sure the patient has been resting for at least 15 minutes before you take his pressure.
- Refer to a hospital:
  Patients with severe hypertension will not respond to your treatment. Refer them to a hospital for stronger medications.

**Prevention**

Most people with hypertension do not know they have a problem. If hypertension is a problem in your community, plan a screening and follow-up program. Also, take the blood pressure of every adult patient who comes to the health center.

# III- GASTRO INTESTINAL SYSTEM

## 1. Hyperacidity

### Definition and causes

Digestion of food in the stomach is aided by the secretion of enzymes and acids from the gastric mucosa. When 1) the amount of acid secreted is increased or, 2) the resistance of the mucosa in the stomach and upper portion of the duodenum is reduced, irritation, inflammation and eventually ulceration can occur. Irritation and inflammation alone is called "hyperacidity" (or dyspepsia or heartburn). When ulceration occurs it is called "peptic ulcer disease" or " peptic ulceration".

. The causes underlying these conditions are complex and vague. However, there are some factors which are frequently related such as:

1. Emotional stress.
2. Certain drugs like aspirin
3. Alcohol, large amounts of coffee or tea.
4. Trauma or infections.

Men are affected more frequently than women. children are rarely affected.

### Signs and symptoms

The typical picture is that of a 40-60 year old man with a history of occasional mild to moderate pain just below the breast-bone. The pain usually comes on about one hour after eating. It is relieved by food or antacids. The pain is usually worse in the afternoon and evening.

- Burning epigastric pain
- Increases with hunger.
- Decreases with food or antacids.
- May occur at night and awaken from sleep.
- There may be mild epigastric tenderness on exam or the exam may be normal.

### Management

The patient and his family should be told about the nature of the condition. The importance of relieving stressful conditions should be emphasized.

The usual diet can be taken except for coffee, tea, cola. Avoid any food known to cause pain. Otherwise, no diet restrictions have been shown to be effective.

Frequent small meals are better than few large meals.

- Stop things that cause gastritis.
- One antacid tablet 1 - 2 hours after meals and before bed for 2 weeks.
- If the patient must take aspirin, have the patient crush the aspirin and take only with meals.
- Follow-up:
  - gastritis may require repeated treatment - have the patient return.
  - if there is no improvement after treatment - increase the dose to two tablets.
  - do a stool examination to look for worms.

Refer for evaluation if the symptoms are not improved within 2-3 weeks, or if a complications occurs.

## 2. Amoebiasis

### Definition and causes

Amoeba are tiny, one-celled animal which can live in the human intestine. They cause diarrhoea. They enter the body with contaminated food, then move to the large intestine. Improperly discarded stool containing amoeba can infect water or food supplies.

### Signs and symptoms

Patient will complain of diarrhea. The diarrhea will range from mild diarrhea to severe diarrhea with blood and mucus in the stool.

Severe diarrhea will cause severe cramps in the lower abdomen. the patient will feel and urge to move his bowels. He may have 5-10 loose stools a day. the patient will not have a fever. If the amoeba enter the blood stream, they may travel to the liver. The patient may develop a large, tender liver and high fever. Transfer them to a hospital immediately.

### Management

When you suspect that the patient is suffering from amoebiasis, treat him with metronidazole. He must take this medicine three times a day ten days. The patient should take the medicine with meals to avoid stomach irritation.

### Prevention

You can prevent most amoebic infections by following these four roles:

1. Dispose of stools safely. Use latrines.
2. Boil water that you drink or cook with.
3. Wash your hands after passing stool,before you touch food.
4. Wash raw vegetables and fruit before you eat them.

## 3. Giardiasis

### Definition and causes

Giardias are one-celled animals like amoeba, they enter the body through contaminated food and water and live in the intestines. However, giardia live in different parts of the intestines and cause different signs and symptoms.

### Signs and symptoms

Giardiasis does not always cause symptoms. When the patient has symptoms, the symptoms usually include abdominal cramps, gas, and diarrhea. The patient may complain of mild diarrhea over many months. No blood or mucus will be found in the stool. The patient will not have a fever. With heavy infections of giardia, food is not digested properly. The patient may lose weight.

### Management

Metronidazole is more effective drug for treatment of giardia. The patient must take the drug 3 times a day for one week.

### Prevention

Giardia can live in the soil or water for many days. They easily contaminate food and drinking water. Urge people to wash all raw fruits and vegetables before eating them. Also urge people to wash their hands before cooking, eating, feeding children and after defecation.

## 5. Hookworms

### Definition and causes

Hookworm infections are one of young children's serious problems. The worms attach themselves to the intestinal walls. They suck blood and nutrients from the body.

Hookworms pass their eggs into the stool. If the eggs fall on warm moist earth, they develop into immature worms. The immature worms remain in the soil until they are able to attach themselves to the feet of people who walk across the ground without shoes. The immature worms then burrow into the skin of the feet and enter the blood stream. The blood stream takes them to the lungs. They move up the air passages into the throat. They are swallowed.

### Signs and Symptoms

When young hookworms enter the body through the feet or hands, they cause an itchy rash. Small blisters occur where the young worms have broken through the skin. After one or two weeks the child may develop a dry cough very much like asthma. As we mentioned before the worm uses the body's blood and nutrient, so it causes anemia.

### Management

- Treat anemia:
  Severe anemia is the most serious effect of hookworm infections. Give patient a course of ferrous sulfate.
- Treat the worms:
  If you suspect the patient has hookworm, treat him with piperazine. You should not use this drug until you have corrected the patient's anemia.

### Prevention

Hookworm infection is very common where soil is moist and sandy. Dispose of human stool in a safe way.

Encourage people to wear shoes when they walk outside the home. This will reduce the chances of infection.

## 6. Pinworm

### Definition and causes

Pinworm are about one centimeter long. They live in the lower end of the large intestine. When the female worm is ready to lay her eggs, she crawls out the anus and lays her eggs on the skin around the anus. The person with the infection often scratches himself around the anus. The eggs get under his fingernails and onto his fingers. From there, the eggs easily get into his mouth and into the mouths of others.

### Signs and Symptoms

a. Presenting complaint
A child with pinworm will be very *restless at night*. He will sleep poorly. Itching around his anus will keep him awake. He may *scratch around his anus*.

b. Medical history
Pinworm spread very easily. If one person in a family is infected, others may also be infected. The infection can cause vague abdominal symptoms of discomfort, colic, and diarrhea. The worms can also crawl into the vagina and cause *itching and discharge from the vagina*.

c. Physical examination
Ask the mother to carefully examine the child's anus during the night. She may be able to see the tiny worms. This will help you to make the diagnosis. Look for scratch marks around the anus and also the areas which surrounded anus looks red.

### Course and complications

Unless all members of a family are treated at the same time, one family member will infect the others. Pinworm infections have no serious complications.

### Management

Several drugs can be used to treat pinworm infections. Give vermox 100 mg two times a day for three days.

### Prevention

Prevention of pinworm infection requires very good hygiene. Encourage mothers to keep their children's fingernails very short and clean. Teach the family the importance of washing hands before meals and after using the latrine.

Pinworm eggs infect an entire household, especially bed sheets and clothing. Wash these items in boiling water and dry them in the sun.

To reduce itching around the anus, show the parent how to apply Vaseline or other petroleum jelly around the edges of the anus when the child goes to bed.

## 7. Typhoid fever

### Definition and causes

Typhoid fever is a bacterial infection of the intestines that affects the entire body. Typhoid fever infects the body when a person drinks water or eats food that has been contaminated by the stool of an infected person.

Sometimes a person recovers from typhoid fever but continues to carry the bacteria in his intestines for many months or years. Such a person is a typhoid carrier. If a typhoid carrier does not practice good health habits before preparing food, he can contaminate the food that other people eat.

Typhoid fever bacteria attack the intestines during their first week in the body. During their second week in the body, they pass through the lining of the intestines and enter the blood stream. Then, the typhoid fever bacteria spread throughout the body.

### Signs and Symptoms

a. Presenting complaint:
A patient will complain of a mild fever with headache, weakness, cough, sore throat, or loss of appetite.

b. Medical history:
The patient has had weakness, cough, sore throat, or loss of appetite for one week. His fever has increased daily. The patient gradually developed a headache, nausea, vomiting, abdominal pain, diarrhea, or constipation.

c. Physical examination:
Take and record the patient's temperature and pulse rate. A step ladder fever pattern and an unusually low pulse rate for a patient with a fever are a common signs of typhoid fever. A typhoid fever patient's temperature can go up to 40°C the first day of illness. More commonly, however, the patient's fever rises in a step ladder pattern.

The temperature rises some each day for six or seven days. Then the temperature reaches about 40°C and stays at this level for the next week.

| Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 |
|---|---|---|---|---|---|---|---|
| 37.5°C | 38.0°C | 38.5°C | 39.0°C | 39.5°C | 40.0°C | 40.0°C | 40.0°C |

A typhoid fever patient's pulse rate is also unusual. When a person has an infection, his pulse rate usually increases about eighteen beats per minute for each degree of increase in his centigrade temperature. A typhoid fever patient's pulse rate is twenty to forty beats per minutes slower than you would expect.

A typhoid fever patient will be weak and exhausted. Check for dehydration caused by a continued high fever with vomiting or diarrhea. Palpate the patient's abdomen. Note any swelling or tenderness.

**Course and complications**

The patient's temperature gradually drops during the third week of illness. Still, a typhoid fever patient may develop serious complications and die quickly. The patient may bleed severely from and ulcer in his intestines. He may lose so much blood that he dies from shock. Another serious complication is perforation of the intestines. A patient with a hole in his intestines will develop and acute abdomen.

**Management**

a. A patient with typhoid fever may become very ill. Transfer your patient to the hospital if you suspect typhoid fever.

b. Give the patient antibiotics before you transfer him to the hospital. Ampicillin is an effective antibiotic to use. Tell the patient to take Ampicillin four times a day for at least two weeks.

c. Treat the patient for dehydration if necessary.

d. Do not give oral fluids and other foods if you suspect a hole in the intestines.

**Prevention**

A patient with typhoid fever has typhoid fever bacteria in his/her stool. Unless the stool is disposed of in a safe way, the stool may contaminate the drinking water supply. Stool may also contaminate food or milk. Work with the community to control these sources of infection. Teach families how typhoid fever is spread. Help people think of ways to keep their food and water supplies clean and safe.

## 8. Hepatitis

### Definition and Causes

Hepatitis is disease caused by viral infection of the liver. It is contagious. It is spreaded by contamination of food or water with the faeces or urine of an infected person. Injections with needles which have been used on and infected person can also spread the disease. The symptoms of hepatitis last for 4 to 6 weeks.

### Signs and Symptoms

This varies from asymptomatic infection without jaundice to a fulminating disease with death in a few days. There is insidious onset of general malaise, much pain, fever, nausea and vomiting with severe anorexia. Many patients develop clinical jaundice, tenderness over the right upper quadrant, a palpable enlarged liver. Occasionally, there may be pale stool associated with skin itching - but this is transient.

- jaundice
- right upper quadrant pain
- enlarged tender liver
- fever less than 39 degrees
- dark urine
- loss of appetite, nausea, vomiting

### Management

1. The patient should rest.
2. Low-fat diet.
3. Supplement diet with lots of carbohydrates and vitamin tablets.
4. Avoid all barbiturates, morphine and sulphonamides.
5. Encourage fluids.
6. Antibiotics are not helpful.
7. A patient who is vomiting and unable to drink fluids. Refer the patient to the hospital.
8. Prevent the spread of hepatitis. The patient should use his own eating utensils. Carefully dispose of urine and faeces away from water and food.

### Prevention

1. Chlorinate the drinking water supply at patient's home.
2. Chlorinate the drinking water of the patient's community.

## 9. Acute abdomen

### Definition and causes

An acute abdomen is any abdominal problem that may require hospital care and surgery. Many problems can cause an acute abdomen. The most common examples of acute abdomen are acute appendicitis and intestinal block. You may not be able to determine the cause of every case of acute abdomen. You should treat any person you suspect with and acute abdomen as a medical emergency. Arrange immediate transportation to a hospital. Start the initial care of the patient and prepare him for the trip.

### Signs and symptoms

The clinical picture of a patient with an acute abdomen will depend on the cause of the problem. Although you will see many cases where the cause is unknown, these are the most important symptoms and signs to look for.

a. Presenting complaint

The patient will present with sever abdominal pain.

b. Medical history

The onset of abdominal pain can be sudden or gradual. Gradual onset usually occurs with other symptoms related to a gastro-intestinal upset, such as nausea, vomiting, diarrhea, constipation, or fever. Suspect internal bleeding with any history of recent trauma to abdomen.

c. Physical examination

The patient will look very ill. He may not be able to walk or talk. He will be very anxious and restless. He will not be able to take a deep breath because of the abdominal pain.

Record the patient's vital signs. He may have fever and signs of shock. When you see signs of shock, start treatment immediately. Diarrhea and frequent or severe vomiting will cause signs of dehydration.

Look for swelling of the abdomen or signs of trauma during your general examination. Gently palpate the abdomen. Note any tenderness or rebound tenderness. Watch for guarding against pain.

**Management**

a. Treat for shock

The patient with acute abdomen soon develops signs of shock. You must prevent shock if possible, and care for shock when you diagnose it. Place the patient in the shock position with his legs slightly raised above his abdomen. Keep the patient warm.

Do not give a patient with an acute abdomen anything by mouth.

b. Refer

Have someone arrange for the immediate transfer of the patient to a hospital while you treat the patient for shock. Do not give any strong pain medication. The severity and location of the pain are good diagnostic signs. You must also consider the comfort of the patient during referral. Never give any patient with an acute abdomen a laxative, even if he complains of constipation. A laxative makes the bowels more active. The increased activity may cause a perforation or other complication.

## 10. Constipation

### Definition

Constipation is a condition when the defecation process does not normally take place the suffering person feels pain during the process of defecation. Instead of daily relieving of the nature a constipated person only succeeds to pass stool after each 2-3 days. You will have no difficulty to diagnose constipation as the patient himself/herself would distinctly tell you the case.

### Management

- Advise the patient to frequently drink fluids and eat green vegetables and fruits with his/her food.

# IV - URINARY SYSTEM

## 1. Urinary tract infection

### Definition and causes

Urinary tract infections usually occur when an abnormal amount of bacteria invade the urinary tract. Many kinds of bacteria can cause urinary tract infections. Bacteria from stool, however, cause most urinary tract infections. The bacteria from stool enter the urinary tract when stool touches the urethral opening. Because a woman's urethra is very short and close to the anus, urinary tract infections are more common in women than in men.

Most urinary tract infections involve the bladder and urethra. These are called lower urinary tract infections. Upper urinary tract infections involve the ureters and kidneys and usually are complications of lower urinary tract infections.

### Sign and symptoms

a. Presenting complaint

Your patient will most often be a woman. The woman complains of a burning pain while passing urine. She must pass urine often, as soon as she feels the urge. Children with urinary tract infections usually cry when passing urine.

b. Medical history

The patient may have had other urinary tract infections before this complaint. Women often develop urinary tract infections during pregnancy. She may now complain of pain or burning while passing urine. An urgent need to urinate and frequent urination are common symptoms. The patient often reports that her urine is cloudy. Children may have a history of bed-wetting, dripping urine, wetting their pants, fever, or vomiting.

c. Physical examination

Palpate the lower abdomen. The patient may feel tenderness when you palpate over the bladder. Examine women's external genitals. Look for vaginal discharge. A vaginal infection may cause symptoms of itching and pain when urine contacts the inflamed vaginal mucosa.

### Course and complications

Urinary tract infections frequently recur. The symptoms of urinary tract infection clear up with adequate treatment. The infection returns if there is no treatment or if the treatment did not completely cure the infection. Infections that recur can spread up the urinary tract and involve the kidneys. Kidney infections cause high fever, severe chills, and backache. Patients with kidney infections may have blood in their urine. They may complain of tenderness when you palpate or percuss the kidneys.

### Management

a. Increase the flow of urine
   The patient should drink at least one glass of liquid every hour to increase the flow of urine and remove bacteria from the urinary tract. A person who has recovered form a lower urinary tract infection should continue to drink more liquids. Increasing the flow of urine may help prevent infection.

b. Give oral Co-trimexazol for ten days

c. Avoid sources of infection
   Tell the patient that daily bathing and clean clothing will lower the amount of bacteria on the body. Tell women to wipe or wash themselves from front to back after urinating or passing stool. Mothers should tell their children not to sit in dirt. Children should bathe every day and clean themselves well after passing stool.

d. Refer the patient if signs continue
   Refer patient with signs of urinary tract infection that involve the ureters and kidneys if the signs remain after one course of treatment. Refer patient with repeated infections or suspected urinary tract blocks.

# V - GYNECOLOGICAL PROBLEMS

## 1. Vaginitis

### Definition

Vaginal discharge is a frequent complaint in women. All women normally have a small amount of vaginal discharge which is clear, milky or slightly yellow and varies with the menstrual cycle. If there is no itching or bad smell, there is probably no problem.

### TYPES OF VAGINITIS:

#### a. Moniliasis (Candida)

Definition:

This is also known as moniliasis or yeast vaginitis. This is a common infection caused by overgrowth of yeast (fungus). This problem occurs more often in pregnant women and women on antibiotics or with chronic diseases such as diabetes, malnutrition or tuberculosis.

Signs and Symptoms

- Vaginal irritation (intense itching and burning)
- White vaginal discharge that looks like curd or buttermilk and smells like mold, mildew, or bread.
- Genital area may be bright red and excoriated. There may be bright red rash on adjacent skin.
- Burning with urination is common, and occurs during urination and shortly after urination as the irritated vagina is exposed to urine.
- No fever (check).
- No abdominal pain or tenderness.

Management

- Stop antibiotics if possible.
- Vaginal douche with vinegar solution or Gentian violet (1-2%) for 7-10 days.
- If available Nystatin vaginal suppositories 1 or 2 times per day for 7 days.

## b. Trichomoniasis

Definition

Trichomonas is a parasitic infection of the reproductive tract which may be asymptomatic in some women or result in vaginal discharge and discomfort. It is spreaded by sexual contact so both husband and wife must be treated even if the male has no symptoms.

Signs and Symptoms

- Thin, foamy, greenish-yellow vaginal discharge.
- Genital itching with tenderness or swelling.
- Foul smelling discharge.
- No fever (check).

Management

- Keep genitalia clean.
- If patient is not pregnant give 8 tablets of Metronidazole 250 mg (2 grams) in single dose. Must also treat husband with the same dose concurrently.
- Vaginal douches may help symptoms. Douches can be made by taking one liter of cooled boiled water and adding 1-4 tablespoons of distilled vinegar (may alternatively use lemon juice).
- If the patient is pregnant do not use Metronidazole. Instead the use of douches and a condom during intercourse may minimize symptoms.
- If patient does not improve with this therapy consider second line treatment for nonspecific vaginitis with Ampicillin (see below).

## c. Nonspecific vaginitis

Definition

This is a bacterial infection that is also transmitted through sexual intercourse. It is a common problem. Symptoms and signs vary somewhat with the type of bacteria causing the problem.

Signs and Symptoms

- Yellow or graying foul vaginal discharge.
- Fishy odor to the discharge.
- Genital burning and itching may be severe.
- No fever.

Management

- Metronidazole single dose if not pregnant as described for trichomonas.
- Ampicillin normal dose for 7 days.

## 2. Dysmenorrhea

### Definition

Pain with menstruation is a common complaint during adolescence but may occur at any age. discomfort is quite individual among women.

### Signs and symptoms

A woman complains of pain in her lower abdomen or lower back which occurs when she has her menstrual period. Menstrual cramps are usually dull, cramping pains that come and go. The cramps may start a day before menstruation. The cramps usually decrease near the end of the menstrual period. Headaches, nausea, diarrhea and lower extremity pain may be associated. Patients often complain of a sensation of fluid retention or swelling particularly of the breasts and abdomen.

Complications are rare. The symptoms often disappear after the woman becomes pregnant or ages.

### Signs and symptoms

- Lower abdominal cramping or low back ache which begins 1-2 days before menses, lasting 1-2 days after onset of menses.
- Headache and nausea may be present.
- Diarrhea may be present.
- Swollen breasts and abdominal bloating.

### Management

- Reassurance of the woman is important. Tell her this is no a serious health problem and is treatable.
- Aspirin/Indomethacin at normal dose with onset of symptoms.
- Encourage to continue normal activities as tolerated.
- Warm baths or compress to abdomen.
- If there is no improvement refer her to hospital.

# VI - EYE PROBLEMS

## 1. conjunctivitis

### Definition and causes

Conjunctivitis is the inflammation of the conjunctiva covering the sclera and the insides of the eyelids. It is the most common eye problem you will see in your clinic. It is also seen in newborns. Conjunctivitis is most commonly caused by bacteria or viruses. Allergic conjunctivitis is also seen, usually associated with allergic rhinitis. Bacterial conjunctivitis is found throughout the world. The problem is infectious as long as a person has symptoms and signs of the problem.

Children under five years are more commonly infected than older children and adults. The incubation period (from time of contact to beginning of symptoms or signs) is 1 to 3 days. The infection is passed from person to person during close personal contact and from contact with articles such as towels. Flies can also carry the infection from person to person. Newborn conjunctivitis is usually due to infection by the gonorrhea bacteria from the mother's vagina.

### Signs and symptoms

The patient will often complain of burning or the feeling of "sand" in the eye(s). The conjunctiva covering the sclera and the inside of the eyelids is reddened. With bacterial conjunctivitis, there is much discharge of pus. The patient may complain that their eye(s) are stuck closed in the morning. the eyelids may also be swollen.

### Course

If the bacterial infection starts in only one eye, it soon spreads to the other eye. The problem continues to become worse.

### Complications

Complications develop form a serious conjunctivitis when the cornea is broken down and a corneal ulcer develops.

### Management

1. Clean and wash out the eye each time before applying medication. Show the patient or mother how to do this.
2. Add a tetracycline eye ointment to both eyes 3 times per day following the cleaning of the eyes. Show the patient or mother how to do this.
3. The patient should have a follow-up exam every two days. Treatment is to be continued until the eyes have returned to normal.
4. Eye patches are not to be used.
5. If the eyelids are swollen, the problem is severe.
6. If there is no cure by treatment in acut conjunctivities MCHO should suspect trachoma.

### Prevention

1. Ask about other members of the family and treat if infected.
2. If the child is school age, ask about his schoolmates.
3. Apply tetracycline eye ointment or two drops of 1% silver nitrate solution to both eyes of all babies as soon as they are born.

## 2. Acute Trachoma

### Definition

Trachoma is a common problem, especially in dry, dusty regions, and is associated with poor hygiene, poverty and crowded living conditions. Although trachoma starts as an acute problem, it can develop into a chronic problem and last for many years.

### Cause

Trachoma is caused by the chlamydia trachomatis. The conjunctiva of the upper eyelid becomes infected.

### Signs and Symptoms

In the early stages, there may be no complaints. Then both eyes develop slight irritation and become mildly red and watery. The problem becomes obvious when there are white spots or lines on the conjunctiva of the upper eyelid. Redness is most marked on the inside of the upper eyelids. You may find scarring along the upper edge of the cornea.

### Course

Over a long period of time (several years), the problem slowly becomes worse. This is because the infection causes the inside of the eyelids to become scarred. the scars start to shrink, and this causes the eyelashes to turn inward. The eyelashes then start to scratch the cornea.

### Complications

Laceration of the cornea by the eyelashes become secondarily infected and ulcers develop. Scarring of the cornea or infection of the inner eye can result in partial or complete vision loss.

### Management

The patient is instructed to use a topical tetracycline eye ointment 4 times per day plus oral tetracycline 4 times per day for 4 weeks. If the patient is a child or a pregnant or lactating woman, co-trimexazol is the drug of choice.

### Prevention

1. Examine other members of the family they are at high risk of having the same problem.
2. If the child is of school age, examine his schoolmates. They are at a high risk of having the same problem.
3. Educate family members, school children and teachers concerning the spread of the problem and the necessity for personal hygiene and fly control.

# VII - EAR PROBLEMS

## 1. Acute otitis media

### Definition

Otitis media infects mostly infants and young children. It usually starts with a cold. The ear drums often turn red during the acute stage of virus infection. However, the virus does not cause fever or pain in the ears. When a bacterial infection spread into the middle ear, the fluid and pus create pressure behind the ear drum. This leads to severe pain. If the ear drum bursts, the pus drains out and pain eases.

### Signs and symptoms

The patient will complain of severe pain in one or both ears. He will not hear as well as he normally can.

### Medical history

The patient often will have had a cold within the previous week. Sometimes there is no previous illness.

### Physical Examination

You can not see an ear drum without especial instruments. You must depend upon the history of severe ear pain and fever to diagnose otitis media severe ear pain and fever are the two most common symptoms associated with otitis media. Examination of the external ear shows no inflammation or swelling. If the ear drum has burst, you will see a discharge with pus. Since a burst ear drum releases the pressure the pain will decrease with the appearance of the discharge.

### Course and Complications

Acute stay of otitis media can become chronic. Also the infection can spread into the bones. That called mastoiditis. The infection can also cause meningitis. Chronic infection of the ear drum can cause a permanent loss of hearing.

### Management

- Help the patient feel better and control the pain, give aspirin or paracetamol every four hours as needed.
- Refer patients who have lost all or part of their hearing to a doctor.
- You should also refer patients who do not feel better one week after treatment. Also refer patients whose infected ear continues to drain after one week.

## 2. Wax in the ear

### Definition and causes

Gland along the ear canals keep them soft and clean. The glands produce wax. When a person cleans his own ears, he often packs the wax down into the canal. When wax completely obstructs the ear canal, the person has trouble in hearing.

### Signs and symptoms

Presenting complaint

when wax is packed into the ear, the patient may complain of fullness and discomfort there. He may also complain of a hearing loss.

### Medical history

Ask the patient how to clean his ears. He probably uses his fingers, a bit of wood, or some small instrument.

### Physical examination

You will see dark material inside the ear canal.

### Prevention and patient care

Tell the patient to put several drops of glycerin 5%, and refer the patient to hospital.

Tell the patient not to stick anything into his/her ear. Dry, hot weather can harden ear wax. Sometimes the ear canal is twisted. The main reason wax blocks the ear canal is that the person tries to clean his/her ear but instead packs the wax in.

# VIII - SKIN DISEASES

## 1. Impetigo

### Definition

Impetigo is a very common contagious disease usually seen in children under 10 years. It is caused by infection by one of several bacterias.

### Signs and symptoms

The problem begins with several vesicles forming on the skin. This soon becomes encrusted and later ulcerates. Pruritis and scratching are common. The lesions are frequently widespread. The face and arms are most commonly affected, especially around the mouth and behind the ears.

fever is unusual but can occur.

### Management

- Wash the affected part with soap and boiled water. Bathe the child twice a day.
- Clean off the crust.
- If the lesion is on the child's head, cut away the hair.
- Gentian violet - 2x/day for 10 days, or antibiotic ointment.
- If no improvement in 3 days:
  Penicillin V po 4x/day - 3 days and reevaluate
  Adult: 250 mg
  Child: 50 mg/kg/day divided 4x/day
- If penicillin allergy:
  Erythromycin 4 rime/day for 3 day
  Adult: 250 mg
  Child: 50 mg, 4 divided dose/day

### Prevention

- Avoid direct contact with persons with impetigo.
- Follow the practice of personal cleanliness. Bathe children daily and protect them from insect bites which the children scratch.

## 2. Boils and abscesses

### Definition

Boils are bacterial infections of the skin. They usually start in hair follicles or in parts of the skin that are constantly rubbed. An abscess is caused by bacteria which destroy tissue. A cavity forms. It is filled with pus.

### Signs and symptoms

The patient complains of a painful lump in the skin. The patient will tell you that at first, he had a small, red, slightly painful lump in the skin. This grew rapidly larger.

The lesion will be firm in the early stages and raised above the surface of the skin. The skin around the lesion will be red and warm. As the boil develops it becomes soft. A yellow point will appear in the middle of the lesion. This means that the lesion contains pus. Lymph gland near the lesion are usually swollen and tender.

An abscess is usually larger than a boil. The area over the abscess is painful and fluctuant. The skin is swollen, red and warm. Lymph glands near the boil are swollen.

### Management

- Check the urine
  Boil can be a sign of diabetes. Check the urine to see it contains any sugar. If it does, refer the patient to a hospital.
- Apply warm soaks
  If the boil is hard instruct the patient to soak the infected part with clean, warm water. Tell him to do this for twenty minutes four times a day until it becomes soft.
- Wash lesion with soap and water.
- Open the boil
  Open the boil only when a yellow head appears. A yellow head shows that the boil is full of pus.

  Cut carefully into the boil with a sterile knife. Then gently ease the pus out by pulling the skin on either side of the lesion.
- Wash the lesion with soap and water.
- Apply a dressing
  Apply a sterile dressing to the boil. Change the dressing twice a day.

## 3. Scabies (The Itch)

### Definition

Scabies is a very common skin problem caused by the scabies mite. The symptoms result from the female mite digging into the skin and laying her eggs. Transmission is by close direct contact or by contaminated bedding or clothes. If one member of a family is infected, the whole family should be treated.

### Signs and symptoms

- Severe itching, especially at night, commonly located:
  - Between the fingers and toes, heels, ankles, wrist
  - Under the arms, around waist in the groin
- Bacterial superinfection is common
- Occasionally the small tunnels may be seen in the skin (about 3 mm long red lines)
- In adults, the face and scalp are not involved.
- In small children, the entire body may be infected.

### Management

1. Wash the body with soap and water.
2. If there is superinfection, first treat the infection like impetigo.
3. Apply benzoyl benzoate to the entire body EXCEPT the face. (In infants when the face is affected, it must be treated too).
   - Adults: Full strength - wash off after 24 hours.
   - Children: Half strength - wash off after 12 hours.
     repeat again in 12 hours.
4. Wash clothing and bedding -BOIL THEM, TOO.
5. Repeat benzoyl benzoate in one week.
6. For severe itching, Chlorpheniramine or promethazine.
7. Treat the infected family members at the same time.

### Prevention

1. Regular bathing and clothes washing.

## 4. Ringworm

### Definition

A fungus causes ringworm. Ringworm spreads easily form person to person. It can also be caught from animals in the house. Children usually get ringworm on the scalp Other forms of ringworm occur in the armpits, under the breasts and in the groin.

### Signs and symptoms

Presenting complaints

When ringworm infects the scalp, it may cause no symptoms at all. Usually, however, the patient complains of one or more very itchy patches of skin.

### Medical history

The patient will tell you that the lesions began as small patches. These patches gradually get larger over several weeks.

### Physical examination

On the scalp, the lesions of ringworm are usually round, gray patches. In these areas, the hairs are broken off. The patches appear bald. Ringworm lesions usually appear on parts of the body not covered by clothes. The lesions are red and round.

The edges of the lesions are sharp. They are made up of very small besides. As the lesions get larger, the skin in the center flakes off and appears normal again. This is called central clearing. Central clearing is an important sign that will help you make your diagnosis. On the scalp and the body, the lesions are often scally around the edges. In the groin and armpits and under the breasts, where the skin is moist, ringworm lesions become wet, very itchy and red.

The edges of the lesions are sharp and scally. The lesions are flat. Sometimes, you will see small vesicles along the lesions. Sometimes you will see vesicles further away from the lesions and separated from them by healthy skin.

### Course and complications

Ringworm has no important complications. You can usually control the disease with special ointments. If ointment do not work, medicines taken by mouth will control it.

**Patient care**

- Cold, wet soaks
  Apply cold, wet soaks if the lesions are in the groin or armpits or under the breasts. The cold, wet soaks should be applied for twenty minutes four times a day. Stop them when the skin dries out and is less inflamed.
- Keep the skin as clean and dry as possible.
- Tell patient that scabis spreads easily.

# IX - OTHER CLINICAL PROBLEMS

## 1. Diabetes mellitus

Diabetes mellitus, or diabetes, is a chronic disease that the patient has more sugar in the blood than normal. When a person has diabetes, the sugar from food does not reach his body cells. Most of the sugar remains in his blood. The sugar passes into the urine. The kidneys must make large amounts of urine to dilute the sugar. The patient with diabetes passes large amounts of urine. He becomes very thirsty and drinks large quantities of water. He also feels weak and hungry because much of the food he eats is lost as sugar in his urine.

Diabetes can occur at any age, but is very rare in children. Diabetes is also very difficult to control in children, so complications develop sooner. Diabetes is less severe in older patients. diabètes in adults can often be controlled with diet and exercise.

**Clinical Picture**

a. Presenting compliant

Adult patients often have few symptoms of diabetes until they develop a severe bacterial infection. The most common symptoms of diabetes are increased thirst, the passing of large amounts of urine, and a large appetite which cannot be satisfied. Children often lose weight.

b. Medical history

Diabetes develops gradually in adults and more suddenly in children. People with diabetes are at increased risk of bacterial infections. Suspect diabetes in any patient with a history of severe or chronic abscesses, cellulitis, or skin sores which do not heal or take and unusually long time to heal. A patient with diabetes may have a history of repeated urinary tract infections or pneumonia. A woman may have a history of repeated vaginal infections and itching around her vagina.

Ask about increased thirst, hunger, or urination.

c. Physical examination

When you suspect that a patient has diabetes, check his urine for sugar. Adult patients with diabetes are usually overweight or obese. The physical examination is otherwise normal, unless the patient is suffering from a skin, urinary tract, or lung infection, or other complication of diabetes.

**Course and complications**

- Diabetes is a chronic, incurable disease. Proper treatment can, however, relieve symptoms and prolong a patient's life. Still, some serious complications do occur.

- A patient with diabetes has a low resistance to infections. Severe abscesses, cellulitis, or skin sores which do not heal are common in patients with diabetes. Patients with diabetes are also at risk of developing pneumonia, tuberculosis, and urinary tract infections. Women patients have problems with vaginal infections.

- Patients with diabetes can develop severe problems of the circulatory system if the major arteries to the brain, heart, arms, or legs are affected.

**Management**

Refer to the hospital any patient you suspect has diabetes. A doctor, with the help of a laboratory, can make the diagnosis properly. Because diabetes is a chronic disease that can lead to serious complications, you must follow your patient closely. These are the most important patient care steps.

a. Encourage overweight patients to diet.

   Help and overweight adult patient to lose weight. Control of diabetes is much more difficult in an overweight person. Symptoms often disappear with weight loss.

   Advise the patient to reduce the total amount of food, or calories, which he/she is eating. Encourage diabetic patients to avoid food which contain processed sugar. Encourage them to eat fresh fruits, vegetables, and food which are good sources or protein, such as lentils, fish, meat, eggs, and milk.

   Find out when the patient usually eats. Help him space his/her meals throughout the day. Small frequent meals are better than one or two large meals.

b. Encourage patients to exercise

   Encourage the patient with diabetes to exercise every day. Regular exercise at the same time every day can help control diabetes.

**Provide follow-up care**

Advise the diabetic patient to return to the clinic for regular follow-up checks. Chart the patient's weight at each visit. Encourage him/her to keep his/her weight down if necessary. find out when he/she eats his/her meals. Ask him/her about the foods he/she eats. Ask about his/her exercise program. Regularly check for increased thirst, hunger, or urination. These are

symptoms of poor control of diabetes.

## 2. Simple goiter

### Definition

A simple goiter is an enlargement of the thyroid gland without symptoms of increased or decreased thyroid hormone production. Lack of iodine in a person's diet can cause a simple goiter. The thyroid gland needs iodine to work properly. Goiters are a common in areas where iodine is lacking in the food.

### Sign and symptom

. A patient with a simple goiter will usually complain of a large swelling in the front of his/her neck. He may say that the swelling causes difficulty breathing. Pregnant women have increased demand for iodine and thyroid hormone.

The thyroid gland will be large and smooth. You may feel nodules in the gland. Note any hoarseness in the patient's voice. An enlarged thyroid gland can press on the voice box and cause hoarseness.

### Management

A simple goiter usually requires no treatment. However, patients who live in iodine-deficient areas should supplement their diets with iodine. Encourage patients to add salt with iodine to their food.

### Prevention

Goiters can be prevented in iodine-deficient areas by using salt which contains iodine. A pregnant woman must receive enough iodine to meet the needs of the fetus growing inside her. An infant will suffer permanent damage if he lacks thyroid hormone during prenatal development and in the early months of life. In iodine-deficient areas, give pregnant women iodine supplements routinely during pregnancy.

## 3. Allergic reactions

### Definition and causes

Allergy is an abnormal reaction of only some people to certain substances acquired through the following ways:

1. Respiration
2. Eating
3. Injection
4. Cutaneous contact

Below signs are usually observed in mild or very severe allergic reactions:

1. Itchy rashes on the skin.
2. Nasal discharge and eye itching or burning.
3. Throat irritation, difficult breathing or dyspnea.
4. Allergic shock.
5. Diarrhea (among children sensitivity to mother's milk is a rare cause of diarrhea.)

Allergy is not an infection so it can not communicate from one person to another. But offsprings of sensitive person have tendency to acquire sensitiveness. In some seasons or by coming in contact with certain substances some people show allergic reaction.

Following are the common causes of allergic reactions:

1. Certain foods like fish, egg, malt, etc.
2. Varieties of drugs, especially, penicillin injections or horse serum.

To prevent allergy, the patient should be taught to find out the objects of their sensitivity and avoid them, i.e. If he is sensitive to some edible he should deny eating it. Or, if he is sensitive to dust he must try not to come to it's contact. However, in severe allergic cases the patient's will have to receive some necessary treatment by a doctor.

# Chapter XII

# ISLAM AND FAMILY PLANNING

# I- FATWA 1 FOR FAMILY PLANNING

CHAIRMAN, FATWA COMMITTEE,
AZHAR UNIVERSITY, UNITED ARAB
REPUBLIC MOHAMMAD ABDUL FATTAH
EL ENANI ISSUED THIS FATWA ON 10-3-1953.

Question

A married man has a child. He fears if he gets many children that he may be embarrassed by becoming unable to bring them up and take care of them; that he may suffer ill-health and nervous breakdown from the inability to fulfill his duties and responsibilities towards them; or that wife's health may be affected from repeated pregnancies and deliveries without having intervals for her to rest and regain her strength and compensate for what her body lost during pregnancy.

Does he or his wife have the right to take some scientific measures according to a doctor's advice which lengthen the intervals between pregnancies, so that the mother can have rest and regain her health, and the father would not be under health, economic, or social stress ?

Answer

The use of medicine to prevent pregnancy temporarily is not forbidden by religion, especially if repeated pregnancies weaken the women due to insufficient intervals for her to rest and regain her health. The Koran say:."..... Allah desires for you ease, He desires not hardship for you...(2/12/185)> " And health not laid upon you in religion any hardship ...(22/78). But the use of medicine to prevent pregnancy absolutely and permanently is forbidden by religion.

The principle is: that it is not the right of the man to ejeculate outside the vagina except with the permission of his wife and that it is not the right or the woman to shut off the opening of her uterus except with the permission of the husband.

But it may be allowed for the man to ejaculate outside the vagina without permission of the wife if he is afraid of having aberrant offspring, e.g. due to bad living environment, or due to the man being in far travels and being afraid about the child.

By analogy, it may be allowed for the woman to shut off the opening of her uterus without permission of husband if she has reason for that.

To sum up: either husband or wife, with the permission of the partner, is allowed to take measures to prevent entrance of the seminal fluid into uterus as a method of birth control: and either of them may take such measures without permission of the partner if there are reasons such as those cited or similar ones.

Is it permissible to do a therapeutic abortion?

According to the great authorities in Islam, it is permissible for a pregnant woman to terminate pregnancy in the early months before fetal movement occur, if the health of the mother-is-endangered.

## FATWA 2 FOR FAMILY PLANNING

FATWA BY SHEIKHABDUL MAJID SALIM
THE MUFTI OF EGYPT ISSUED FROM
DAR EL EFTA, NO.81. REGD.43, ON 25-1.1937
IN FOURNAL OF THE EGYPTIAN MEDICAL
ASSOCIATION, VOL.20, 7TH JULY, 1937, PP.55.

Question

A married man has a child. He fears if he gets many children that he may may be embarrassed by becoming unable to bring them up and take care of them, or that he may suffer ill-health and a nervous breakdown from the inability to fulfill his duties and responsibilities towards them: or that his wife may be affected from repeated pregnancies and deliveries without having intervals for her to rest and regain her strength and compensate for what her body lost during pregnancy.

Does he or his wife have the right to take some scientific measures according to a docotor's advice which lengthen the intervals between pregnancies, so that the mother can have rest and regain her health, and the father would not be under health economic or social stress?

Answer

It is allowed to take some measures to prevent pregnancy under the circumstances cited in the question, either by ejaculating outside the vagina, or by the woman inserting something to shunt off the opening of the uterus to prevent entrance of the seminal fluid.

## II. MCHO'S ROLE IN FAMILY PLANNING

Family planning allows a couple to have the number of children they want when they want.Planning means to have a desired number of children at desired intervals. Family planning does not just mean birth control; it also includes fertility counseling and other counseling for those who have difficulty becoming parents. As MCHO, your main responsibility lies in informing couples the benefits of family planning the contraceptive techniques and the services provided so that they are able to make a decision based on this information. This chapter will cover the MCHO's role in following areas:

### 1. The importance of family planning for the health of the mother and the family

In the past, most women had no choice in controlling pregnancy. For young girls marriage was soon followed by pregnancy. This was accepted as a fact of life and resulted in repeated pregnancies which resulted in poor health because of the reasons below:

- There was not enough time for a woman to recover fully,
- An additional baby to look after meant more energy and time required for child care, thus depriving her for needed rest.
- There was an increase in responsibility for them and management of her family in existing resources causing the mother sacrifices her needs.

Repeated and frequent pregnancies are hazardous to the unborn foetus as well to other children in the family is because:

- Repeated and frequent pregnancies may result in miscarriages or abortion.
- The mother will has to stop breast-feeding one child early to feed another, depriving the child of required nutrition.
- The older children, who may still need looking have to take care of younger ones because they find it difficult to manage. This caring of baby by children may result in injuries and ill health.

Repeated and frequent pregnancies also have negative effects on the father and rest of the family because:

- A mother is tired from bearing multiple children in a short time and her capacity for work is reduced.

- She may get over-tired, irritable and neglect children, husband and the house, resulting unhealthy home environment.
- If the family income is limited, it now increased needs for food, clothing, etc. This may create frustration and unhappiness in the family.

## 2. Family planning services;

There are two major types of family planning services available:

a. - The most well known is the services for counseling and prescribing the contraceptive methods utilized to space pregnancies and limit the number of children.

b. - Other services for those couples who are unable to become parents.

As MCHO you need to be aware of both situations. Pregnancy as well as infertility may cause problems for some families.

Your main role is to provide up-to-date information on what methods are available and how these can be obtained.

# III- METHODS OF CONTRACEPTION

In the following pages, you will read all about the various methods of contraception. You might ask or a client might ask "which is the best method?". This question cannot be answered by naming one method. All methods prevent unwanted pregnancies. Some are more effective and reliable than others. Some couples are perfectly happy with one method while other couples would never use that method.

SO, THE BEST METHOD OF CONTRACEPTION IS "ONE WHICH IS ACCEPTABLE TO AND SUITABLE FOR A PERSON OR FOR A COUPLE AND WHICH WORKS"

Any method is better than no method provided it is used regularly. The less reliable methods are more effective when used regularly than the more available methods used irregularly.

## A VERY OLD METHOD STILL IN PRACTICE

There are:

- "Withdrawal method", It is also called coitus interruptus i.e. the sex act.
- "Safe period". It is also called the Rhythm method"
- Breast feeding". Some women do not get their monthly periods when they are breast feeding.
- "Abstinence". Avoiding sexual relations to avoid pregnancy.

### The "Withdrawal" Method

When husband and wife have sexual intercourse, man's sperm in the form of a watery fluid(called semen) are deposited inside the woman. This happens towards the end of the sex act. The man separates from his wife before the sperms are deposited inside the woman. This is called "withdrawal", or in other words "separation". This is a very old method. It has been practiced for centuries.

### Advantage

- Require no medical supervision.
- No cost is involved.

It is better than not using anything because it does provide some protection. Good for areas where FP service are not available. An acceptable method for those couples who cannot use any contraceptives due to religious beliefs.

### Limitations

Not very reliable because if the man does not separate in time and even one drop of semen is deposited inside, it has enough sperm to make the woman pregnant.

- The man needs a high degree of self-control.
- Since it is directly related to the sex act, the couple cannot relax and enjoy the intercourse. Therefore,sometimes it is not a very acceptable method.

### MCHO'S role

Some times the mother might ask you some questions. It is not very common but you should be prepared to answer them in case you ever find yourself in such a situation. Or in case you are trying to motivate mother to use one of the more reliable method of contraception and she tells you that she does not need anything because her husband separates from hereon that case you might have to provide some information.

You should know that:

1. With this method there are more chances of her becoming pregnant, if 100 couples practice this method for one year, at least 30 women will become pregnant.

2. A bit of fluid comes out of the male organ before it enters the vagina. It is possible that sperms are present in this fluid. So, even if the husband separates from his wife in good time, the sperm have already been deposited inside the woman and she can become pregnant.

Use your information when the need arises. BUT DO NOT SAY ANYTHING TO THE MOTHER IF YOU HAVE NOTHING BETTER TO OFFER.

In that case it is better to encourage her to continue with it., remember it DOES provide some protection.

**A.2 Safe period of rhythm method**

There are certain days in the monthly cycle of a woman when there is no female egg in the woman's body. This means it has either not been released, from the ovary or it was released but died. During these days a woman cannot become pregnant. That is why it is called safe period.

Normally the woman's egg is released by the ovaries 14 days BEFORE she get her monthly period. It lives for 24 hours. If there are no sperm to fertilize the egg then the woman does not become pregnant, and the egg dies.

The sperm after entering the woman's body live for 48 hours. This means that woman had slept with her husband, without using a contraceptive 2 days before the egg was released or one

day after the egg is released, ere are all chances of her becoming pregnant. In this method pregnancy can be avoided by two days.

- By avoiding sexual relations 3 days before and 2 days after the release of the female egg.
- By using a contraceptive method 3 days before and 2 days after release of the female egg.

The difficulty is that monthly periods are not always very regular. Sometimes they come one or two days early and sometimes one or two days early and sometimes one or two days later. This means the egg is released one or two days early or one or two days late. A woman cannot tell before hand whether her periods will be bit early or a bit late.

Make sure, the couple has to keep a margin for early and late monthly period. So they will have to avoid sexual intercourse or use a contraceptive for 5 days before and 4 days after the estimated date of a release of the egg.

There are some methods of determining safe period but they involve 3-6 months effort, hence not very practical.

There is keeping a record of early morning oral temperature for 3 months. At the time of ovulation the temperature drops by 0.2 F. and then rises. The other is to keep a record of the dates of monthly periods for 6 months, subtract 18 days from the shortest cycle (e.g. 26 days cycle) and 11 days from longest cycle (e.g. 30 days cycle).

16 - 8 = 8) This means from the 8th to 19th days
30 - 11 = 19) Of each cycle is the "UNSAFE" period.

**Advantages**

- No medical supervision required,
- A no-cost method.
- Better than nothing
- Acceptable for those who do not use any other method on religious grounds.

**Limitations**

- Complete abstinence for 10-11 days each month requires a great deal of self control.
- The temperature method requires daily effort for 3 months.
- To record dates of 6 months menstrual periods require effort and motivation.

- What will the couple do for 3-6 months while they are recording information?
- Recording temperature or dates require 'writing' hence can not be practiced by illiterate mothers.

Reliability is 50% only.

**Breast Feeding**

Some women do not get their periods when they are breast feeding the baby so they continue to breast feed to avoid pregnancy. This method widely used in villages.

**Safety many women but not with all women**

The "Safe Period" method was explained that female egg is released BEFORE the monthly period. If the egg is released and the couple has unprotected relations, the woman can become pregnant. If she becomes pregnant, she will not get her monthly period and she will go thinking that she is not getting her periods because of breast feeding. Sometime, the woman will not suspect pregnancy until she experiences signs of pregnancy.

But 10% breast feeding woman becomes pregnant without getting their periods. Therefore, if a woman wants to be 100% sure that she does not become pregnant, she should use a method of contraception even when she breast feeding. If she is not fully breast feeding, she must use a method of contraception to avoid napalmed pregnancy.

**Religious advantage**

The infant gets breast milk which is very good for his/her health. Breast feeding is an accepted role of the mother in almost all cultures. Therefore, if used for family planning there is no opposing from anyone.

It works with 90% of the female therefore is fairly reliable accepted to religious opposition to this method. In fact Islam orders breast feeding.

**Limitations**

Woman might get pregnant and not know it for 4-5 months if the child is only breast fed it will become undernourished.

Still this method should be encouraged particularly when the mother do not want to use any other method of contraception or when no family planning services are available within easy reach.

**Abstinence**

This means avoiding sexual encouragers. In the old days, husband and wife did not share the same room. The women in some cultures delivered their babies in their parents home and stayed there for some period. Such practices provided a situation where abstinence was possible because of physical separation. In these days complete abstinence is almost impossible. It is neither healthy nor normal.

**Advantages**

- Can be of some help if sued during the unsafe period with knowledge and understanding.

**Limitations**

- Very high degree of self control is required by both partners.
- A whole year's control can become useless by one sexual intercourse during the unsafe period.

## b THE "BARRIER" METHODS

A barrier in common language is something used to "block the way" In contraception, a barrier is used exactly for this purpose i.e to block the way so that the woman's egg and the man's sperm cannot meet.

The barrier method have been used for a long time. Women used to make vaginal plugs from pieces of cloth, soak them in vinegar, lemon juice, oil, or lime juice and put them in the vagina before sexual intercourse. Gradually the barrier method were improved.

**TERMS USED FOR "Contraceptive Barriers"**

The Diaphragm and the condom are called Physical Barriers because they are "things" or "objectives" and have no chemicals (drugs or medicines) in them.

**THE CONDOM**

It is a sheet made of very thin rubber(see picture below). It is like a small circular pillow case with one end open. It is rolled down and packed in a small packet. It has many names. You should use the name which is commonly used in your community.

**How is it used?**

When a man feels ready to make love to his wife, his organ becomes hard and erect. At the time, before entering his wife he covers his organ by enrolling the condom over it.

**How does it work?**

It acts a barrier by covering the male organ. The closed end has a small pouch where the semen is deposited at the end of the sexual act. After the sexual act, before separation from his wife, the man holds the condom to make sure that his organ and the condom come out together. The semen is in the condom and not inside the woman. If the man's semen does not enter the woman, she cannot become pregnant.

**Side effects**

Usually there are no side effects. Some times only.

| Side effects | MCHOs action |
| --- | --- |
| Pain during the intercourse. | Itching sensation for one or two days only after the intercourse. |
| Burning sesation in the vagina after the intercourse. | If the couple is using the condom alone. |

- Ask Are you using only rubber?

- Have you always had pain itching/burning sensation or has it strated since your husband has started using the rubber?

- When your husband wants to enter you, does he have to try or he can go in easily?

**Advantages.**

Inexpensive

- Easily available
- Usually no side effects.
- No clinical services or medical supervision is required.
- Does not require daily efforts as in case of the pill.
- It decreases cessation. Hence some men like to use it for prolonging the sex act.
- A good method for the woman who has to wait for her next period to start on the pill or get an IUD.
- Provides a lot of protection for the couples who cannot get other contraceptive because there are no FP services to them.

**Limitations**

Not highly reliable if used alone as it can break. If the man does not separate from his wife carefully, there is a risk of spillage, Which can result in pregnancy.

- High cause discomfort if vaginal secretions are scanty.
- It is directly connected with the sex act and interrupts the sexual mood. Some couples do not like this.
- It decreases sensation and thus decreases pleasure, hence not acceptable to some couples.

**Instructions to the Mother**

1. These rubber are for your husband. Do you know how they are used? (If she does not know, then explain - see the paragraph about "How it is used").

2. Use each condom only once. After use, wrapped in a piece of paper before through it away otherwise children might find it and think it is a balloon.

3. Make sure that when your husband separate from you, he holds the condom and takes it out with him. If the condom is left inside you then you have to take it out. In doing so, you might spill some semen inside you and you might get pregnant.

4. What to do if the condom is left inside?

   Stay where you are. Gently put your thumb and the finger next to the thumb inside you, feel for the edges of the condom which is thicker than the rest of the condom and pull it out.

**THE DIAPHRAGM**

IT IS A SMALL FLEXIBLE CUP MADE OF SPECIAL RUBBER

**How does it work?**

It acts as a barrier in the vagina. It fits in front of the mouth of the womb and blocks the way of sperms preventing them from entering the womb.(see picture on the next page).

How reliable is the diaphragm?

If used promptly AND with a contraceptive jelly or cream it is very reliable.

**How is it used?**

Diaphragms come in various sizes. The doctor/midwife measure the mother's inside for the exact size and then gives her a diaphragm. The mother is thought how to put it in. She MUST put it in a every before she has sexual relations.

The diaphragm is flexible. It is lubricated with jelly/cream. These two factors make it easy to put it inside.

She can do with standing up on one foot on the stool or she can set on the floor.

**Limitations**

- Women have to be trained to use it properly.
- Because of the cream/jelly it is a bit messy. Some husband do not like it.
- Not suitable for mothers whose vaginal muscles are loose.

**Instructions to the mother**

1. The cup (or cap) must be put in every time BEFORE you go with your husband whether during the night or during the day.

2. Leave it in after the intercourse for at least six to eight hours.

3. After taking it out, wash it with soap and water, dry it thoroughly with clean cloth, put it in a small paper bag and store it in a cool place. Heat spoils the rubber end it cracks.

4. Before using it, examine the cap, particularly around the ring to make sure there are no cracks.

5. Come for a check up at least once a year.

6. If you feel you have lost weight, come to the clinic because you might need to get new cap. Sometimes when mothers loss weight their size changes. Their size also changes after the birth of a baby. Some mothers will ask you questions about the diaphragm. Give simple and truthful answers.

## B.2 CHEMICAL BARRIERS

* (Cream, Jellies, and Foam Tablets)

As the name suggests, they are chemicals (medicines or drugs) which are used to block the way so that the woman's egg and the man's sperm cannot meet. The chemical is mixed with a cream or jelly or a powder made into a tablet which makes foam when it becomes wet.

**How do they work?**

They work in 2 ways:

The cream, jelly or foam covers the mouth of the womb. When the men's sperm are deposited in the vagina they want to get into the womb but get caught in the jelly, cream/foam and cannot move properly.

The chemicals in the cream, jelly or foam act on the sperm and kill them.

**How are they used?**

The cream, jellies and foam comes in/bottles/tubes, having a special applicator with them. The applicator looks and works like a syringe(but no needle).The woman fills the applicator with the cream/jelly/foam, inserts it in her vagina and pushes the plunger (the inner part of the applicator). The cream/jelly/foam goes in the vagina and covers the mouth of the womb.

Note: The woman has to be taught how to fill the applicator and how to put it inside her vagina.

The vagina "suppository" or the "foaming tablet" is just pushed into the vagina with the finger. It is pushed as far as the finger can push it.

**Advantages**

- Easy to use.
- No medical supervision is required.
- If the husband uses a condom and the wife uses a chemical barrier then there is very little chance of pregnancy.
- No daily effort is required to avoid pregnancy.
- Practically no side effects.

**Limitations**

- Makes the vagina too moist. Some couple do not like this.

**Side effects**

There are practically no side effect of the Chemical Barriers. Occasionally a mother using one of the chemical barriers might complain of itching or burning sensation in the vagina. Refer her to a doctor. DO NOT tell her stop using it. Let the doctor tell her after an examination.

## FOAMING TABLETS/VAGINAL SUPPOSITORIES

**How do use?**

These are very simple to use. The tablet or suppository is removed from its packing and pushed in the vagina with the index finger as far as the finger goes so that it reaches near the mouth of the womb.

The foaming tablet/suppository is pushed into the vagina.

With the heat of the body it melts and makes a foam which covers the mouth of the womb.

- The foaming tablet/vaginal suppository should be used five minutes before each intercourse.

Note: Some vaginal suppositories are to be dipped in water before putting in Read the instructions carefully and instruct the mother accordingly.

**Instruction to the Mother**

1. Explain to the mother how to use the chemical barriers.
2. In some cultures women "clean" themselves immediately after the sex act by washing the inside of the vagina. Tell her, if she is using one of the chemical barriers she should wait for at least 6 hours before "cleaning" herself. She can clean herself from the outside with a clean cloth if she feels "messy".

Note: It is better to use two barriers together as follows:

- Diaphragm and special cream or jelly.

- Condom and special cream or jelly.
- Condom and foaming tablet.

## C. MODERN

### HORMONAL:

Our body has certain glands which produce secretions known as "hormones. Ovaries are 2 such glands. They produce the female egg and also produce certain hormones. The hormones contraceptives are made of either one or tow hormones just like the hormones product by the ovaries. The only difference is that these hormones are made in scientific laboratories and not by the female body.

HORMONAL CONTRACEPTIVES

| Oral | Injectable |
|---|---|
| Commonly known as the pill | The woman gets the injection |
| It is taken by mouth | |

* Pills (Oral Hormonal Contraceptives)

The pills are made of 2 hormones and some of one only. The ones with two hormones are used most commonly because they are more reliable.

You will hear many names of the pill. Some are exactly the same but have a different name because they are produced by different companies. Some vary in the amount of one or both hormones.

The doctor/nurse will prescribe the most suitable one.

The pill with two hormones is called the "combined pill" Most Family Planning Centres have this type of pill so this section "the pill" would automatically mean the combined pill.

**How does the pill work?**

The ovaries produce the female egg the amount of hormones in the female body is a certain level. If this is increased, the ovaries do not make the egg. (This is exactly what happens during pregnancy).

So when the woman take one pill (hormones every day the hormones in the body are increased. The ovaries "think" the woman is pregnant and they do not make the egg.

Similarly, the womb (uterus) does not produce period when the woman is taking the pill. That is why after the woman has the pill for 21 days she stops for only 7 days. When she stops, the hormone are reduced and the woman gets her periods sometime during these 7 pills free days.

If the rest period between 2 packets is more than 7 days, then the hormones level will become normal for the ovaries and they will start producing the egg. This means RISKS OF PREGNANCY, therefore the pill must be started on the 8th rest day irrespective of the bleeding or no bleeding.

IT IS VERY IMPORTANT for the Family Planning Workers and for the pill users to understand how the pill works. So that proper instructions are given and followed.

**Advantages**

- If taken regularly it is an almost 100% reliable contraceptive .
- Easily reversible.
- Regulate periods.
- Correct heavy periods.
- Reduce or eliminate "periods pains".
- Period are shorter and less heavy. The haemoglobin level of woman taking the pill usually rises.
- Some times the facial skin becomes clearer and acne is improved.
- It is not connected with the sexual act hence does not affect the sexual mood.
- It is easily stored and easy to use,.

**Limitations**

- It needs daily effort. This means a mother's desire to postpone pregnancy must be very strong.
- Some women have problems with taking extra hormones. They have to use another method. (See section on side effects).
- The pill is contraindicated in certain health conditions(see section of "Contra-indications").

- For a very small it is risky to take the pill.

Correct Method of taking the pill.

21 days with the pill, one daily, same time of the day, then 7 days without the pill. Some packets have only 21 pills. Some packets have 21 pills plus 7 vitamin tablets which are of a different color.

When to start and how to use the pill start the first packet on the 5th day of the menstrual period. If the packet has 21 pills, take one pill every day for 21 days. Then rest for only 7 days and start the new packet on the 8th day. She will usually get her periods during this rest week.

If the packet has 21 pills plus 7 vitamin tablets, she uses the 21 pills first and then start on the vitamin tablets, taking one daily for 7 days. When she finishes the 7 vitamin tablets she starts her new packet the next day. She will get her periods during the week of the vitamin tablets.

Remember, the 5th day start is for the first packet only.

An Easy Way

Put the starting weekly on the mother's card and on her clinic card. Give her a date to come back 2-3 days before she is due to start the next packet.

Tell her to bring the current packet with her so that you can check whether she is using the pill properly.

When the mother returns to get her supply. You check the used packet and compare it with her starting day of the week. You will know without counting whether she is taking the pill regularly or she has made a mistake.

Example: A mother whose starting day is Monday, will finish her packet on a Sunday and will start her next packet also on a Monday. This will happen only if she uses the pill regularly.

How suppose that this mother returns to the clinic on a Saturday and she has 3 vitamin tablets left, one for Saturday, one for Sunday and one more. You will immediately know that she missed one day, because she should finish her packet on Sunday and start a new one on Monday. If she has one extra pill a mistake has been made. Teach this to the mother that she will start each new row of the packet and each new packet on the weekday written on her card. She can check the packet herself and this way she will be sure of using the pill properly. If the packet has 21 pills, the same rule applies. Her pill free week will also start on the same weekday written on her card.

**Instructions to the mother**

1. Explain to the mother when to start and how to use the pill.

2. If the packet has 21 contraceptive and 7 vitamin pills explain the difference between the contraceptive pills and the vitamin pills.

3. Make sure she understands that she must start with the contraceptive pills. Take one every day, same time of the day, preferably after a meal. When the 21 contraceptive pills finish start on the vitamin tablets (which are of a different color).

4. If the packet has only 21 pills then she uses them as explained above. She finishes the 21 pills and rests for 7 days no more no less, and start the next packet on the 8th day.

5. Explain that normally she will bleed during the rest week but she should not connect her starting of a new packet with the 5th day of her periods. 5th day is for the first packet only.

She must start the next packet after 7 days of rest or after 7 vitamin tablets. (even if she doe not bleed, she should start on time, and come to the clinic to rule out being pregnant).

6. If she forgets one pill, she should take it as soon as she rememberers. This means if sh forgets it in the morning she can take it in the afternoon or evening. But if she forget "yesterday", then she should take 2 pills i.e. one for yesterday and one for today.

7. If she forgets on 2 days and remembers it on the third day, she should take 2 on the day sh remembers and two the next day, so that she will finish the packet on the right day . BU' there is a possibility of pregnancy. She must use another method of contraception until sh finishes the present packet, and gets her periods.

8. Tell her to keep the pills out of children's reach. If a child takes one or two pills it will nc harm the child but the mother's pill cycle will be upset.

Tell her when to come back and explain the importance of coming back in time for he supplies. Tell her bring the current packet with her.

Remember to tell her that if she has any problems she can come back any clinic day.

**Contra-indications for the pill**

The pill is not suitable for mothers who have a history of / or are suffering form any of th following diseases:

1. Migraine headaches.
2. High blood pressure (above 140/90).
3. Barest lump.
4. Heart disease.
5. Kidney disease.
6. Gastric ulcer.
7. Liver disease.
8. Certain blood disorders.
9. Prominent varicose veins.
10. (Blood clot) in any part of the body.
11. Fibroid (Tumors).
12. Diabetes.
13. Recent surgery on the uterus - no pill for 3 months.

14. Locating mothers who are fully breast feeding the infant should not start the pill until the baby is 3 months old and lactating is properly established, because the pill affects the quantity and quality of milk.

**Side effect**

Most women tolerate the pill very well. Some even feel healthier and more energetic.

Some women have minor side effects which pass as their bodies get used to the new level of hormones(usually within 2-3 months). They only need reassurance. Listen patiently and then give advice.

A few women have problems that indicate that the pill is not suitable for them. They should finish the packet which they have started and consult the doctor for change of method or change to another type of pill.

Remember, If they stop in the middle of the packet they will start bleeding.

VERY EARLY (BUT IT MIGHT HAPPEN) a women gets a serious side effect in that case she must STOP IMMEDIATELY and consult the doctor.

In case we do not worry about the bleeding. We are more concerned about her safety.

In the next few pages you will find the various possible side effects, your action in each case and the main points to be included in the advice you will give to the mother.

You can discuss with the clinic doctor about the "Action" part. He/she might give you a little more responsibility and authority than what is suggested in the following pages. If the doctor has given you permission., you can act accordingly.

When talking to the mother during return visits ask her how she feels. Do not give her an impression that you are expecting problems. If she has any complaints she will tell you.

Some of the side effect are grouped together e.g 3 or 4 in one box. This does not mean th one mother will have all of these. They are grouped together because your action and advice the same for each of these.

**Inter Uterin device (IUD):**

The IUD is an object which is placed inside the womb of a woman by a traine person(Medical Officer, Nurse, Health Technician, Lady Health Visitor), to prevent an unwante pregnancy. IUDs come in many shapes. They usually made of plastic and have a piece of threa handing from the end. The thread hang in the vagina so that women can check for the string make sure that the IUD is still in place. If she cannot feel the string , she should use anoth method to prevent pregnancy until she can go for a check up. The string should never be in th uterus. There are many kinds (26) of IUDs. The type most commonly available in Afghanista is the Lippes 1 loop Lippes loop was found to give the best overall results when compared wi other devices. It has a low pregnancy and expulsion rate,. So this type was chosen by t Afghanistan Family Planning Programme and is manufactured in Pakistan. The IUD is ver effective in preventing pregnancy. If women are screened well. IUDs are countermand(shoul not be used) in the following circumstances:

- Pregnancy
- Heavy menstruation
- Pelvic infection
- Severe anaemia
- Tumor of the reproductive system

Woman with any of the above conditions should be provided with an alternative method c birth control.

What should a MCHO tell a prospective IUD user? Health Technician should give out th following informations:

- The use of an IUD requires that the Woman go to a clinic of an IUD camp.
- The doctor will perform an internal examination to find out it her womb is suitable for a IUD.
- The woman should come to the clinic during her menstrual period or within a week afte her menses.
- If the woman is breast-feeding, then the best time for IUD insertion is 2 to 3 months afte delivery. She should not delay insertion until she gets her period.
- There may be some bleeding after IUD insertion, intermenstrual bleeding and somewha heavier bleeding than regular menstrual flow during the two or three months after insertion
- Mild and severe cramps and backache may occur during IUD insertion.
- This is more frequent in women who have a small uterus, or those who have never beei pregnant.
- The woman should feel for the string in the vagina to know that the IUD is in place. If she cannot feel the string, she should visit the clinic to determine the problem.
- The woman needs to come to the clinic for follow up visit after a few months.

If she develop any persistent problem in any period of time, she should visit the clinic foı consultation.

After it has been determined that the woman is a suitable candidate for an IUD the following tasks need to be completed by the Health Technician:

1. Obtain a health history including menstrual history.
2. Wash hands.
3. Do a pelvis examination to rule out any abnormalities. The procedure for a pelvis examination is given in Chapter IV.
4. Insert the loop according to the procedure given at the end of this chapter if and only if you have been satisfactorily trained and authorized to perform the procedure.
5. Have the woman wash her hands and feel the string.
6. Review her responsibility in:
   - Checking the string periodically.

- Reporting or coming back to the clinic with any unusual or persistent symptoms.
- Returning to the clinic follow-up visits as required.

7. Review with her possible side effects and what to do about them. Always stress the importance of returning to the clinic if she is concerned about anything relating to the IUD.
8. Inform her that in case of heavy bleeding, infection or when she is ready have another baby, the IUD needs to be removed.

## SIDE EFFECTS OF CONTRACEPTIVES AND THE MCHO'S ACTIVITIES

Side effects are those effects or symptoms which are not desirable. As you need to be aware of the fact that anything consumed of used internally as a contraceptive may produce undesirable effects. These effects are listed and described below:

## SIDE EFFECTS AND MCHO'S ACTIVITIES

| Possible side effects | MCHO's activities |
|---|---|
| 1. Irregular bleeding such as heavy menstrual flow, irregular period, spotting (bleeding) between periods. | 1. - Inform the woman that this usually subsides in 2 - 3 months. If it continues for longer than 2-3 months or if the woman is concerned, refer her to the medical officer. |
| 2. Reduction in menstrual flow. | 2. - This can occur with hormones and is not a cause for concern. |
| 3. Vaginal discharge: | 3. - No treatment for 2 to 3 months. If persistent refer to Medical Officer. |
| - Bloodstained. | - |
| - Smelly with fever and severe backache. | - Refer to Medical Officer. |
| - Backache and abdominal cramps. | - Give simple pain reliever and advise rest. If persistent, refer to Medical Officer. |
| 4. Pregnancy like symptoms such as nausea, vomiting weight gain fullness or tender breast. | 4. - Inform the woman that this could be due to the pill or injection and should subside gradualy as body gets used to the hormones. |
| 5. High blood pressure (around 160/110), severe vomiting, visual disturbance, dizziness jaundice, heavy bleeding, severe chest pain swelling in the leg. | 5. - If any one or more of these symptoms are experienced refer her to the Medical Officer immediately. |

As MCHO you need to pay a attention to how people respond to the family planning method adopted by them. If they are at all concerned, you need to sit down and explore why. Further enquiry and discussion may provide clues as to the reason for the person's concern. Still further discussion will either relieve the anxiety or help you to refer the case to a medical officer.

**MATERIAL NEEDED;**

1. Tinture of Iodine B.P.

2. Tap water or clean well water.

PROCEDURE:

1. BEFORE each clinic session, put water in the instrument container, IUD tray and the basin for gloves.

2. Add iodine while stirring until an orange color appears there is no need to measure.

   Add Tincture of Iodine 2.5% BP to clean water until an orange color appears. (There is no need to measure).

3. Place clean instrument in the container, the inserters and IUDs in the tray, and the gloves in the basin. After ten minutes all equipment is sterile and ready for use.

4. After the instruments and gloves are used, scrub and cleanse thoroughly with soap and water, and rinse after wards with clean water. After inserters are used, rinse them in clean water.

5. Iodine solution exposed to air and organic material gradually loses its color. This indicates loss of iodine. If the solution is clean simply add more iodine until the orange color returns: it is normally necessary to do this after every three hours.

6. Fresh solution must be prepared before each clinic session and whenever necessary during clinic sessions. Do not attempt to save or store the dilute solution.

7. IUDs and inserters must only be kept in the solution during clinic sessions to prevent softening of the plastic. Keep loops and inserters dry between clinic sessions.

8. Metal instruments need to be boiled for twenty minutes.

## PROCEDURE FOR INSERTING IUD

Supplies required:

1. A good light source (flashlight or lamp).
2. A sterile speculum.
3. A pair of surgical gloves.
4. An examining table or bed.
5. Antiseptic sponges.
6. Lippes loops.
7. Introducers.
8. Sponge holding forceps.
9. 6" dissecting forceps.
10. Tenaculum
11. Two kidney dishes or other metal pans
12. Long curved scissors.
13. Bowl of 1:2500 aqueous solution iodine, or Dettol 1:50 or Sablon.
14. Chitie forceps.
15. Tray with lid for IUD and inserter.

This procedure is to be done by a Health Technician only if you have thoroughly taught and authorized to do so.

All instruments should be germ free. The metal instruments and introducers used should be boiled for 20 minutes. If this not possible, soak all the instruments in iodine solution for 20 minutes before using. The plastic loops cannot be boiled. They should be soaked in a 1:2500 solution of aqueous iodine for 20 minutes before using.

**Insertion techniques:**

1. The woman is put on an examination table or bed after taking her history and after she has voided. The patient may support her knees with her hands.

2. A bimanual pelvis examination is performed with washed clean-gloved hands in order to determine the size and position of the uterus and to exclude contraindications. The cervix is inspected with a speculum.

3. With the speculum in place, view the cervix and clean the cervix with a cotton ball dipped in aqueous iodine solution.

4. For the average multiparous, postpartum woman, size 30 mm "C" loop should be used in case of reinsertion after expulsion of size "C". The small size, 27.5 mm "B" should

be used only in cases of hyper involuted uterus, in prolonged lactation amenorrhoea or when the client complains of bleeding and/or paid with a larger IUD.

5. After fixing the speculum, the gloves should be removed. Hands should be washed with soap and water and dipped in iodine solution for two minutes.

6. The sterile loop is loaded in the inserter with sterilized dressing forceps. (Threading the loop in the inserter with dressing forceps requires a little practice but is very simple when the technique is mastered).

7. The inserter must not be loaded more than 5 to 10 minutes before insertion into the uterus, as the loop loses its shape when starched for a longer time period.

8. Hold the inserter in the left hand with the black guard, the upper end of the insertion towards you. With the right hand grasp the loop with the sterile forceps. The large end of the loop (without thread) is introduced into the upper end of the black guard of the inserter and the loop is pushed into the barrel of the inserter. When the whole loop is in the inserter , it is further pushed will with the help of the plunger toward the cervical end of the inserter. The thread will then protrude from the upper black guard of the inserter. Now the loop is ready for insertion in to the uterus.

The end of the inserter is pushed through the inserter into the uterus. The cervical black guard should be cover the external cervix. The inserter loaded with loop , is then rotated at the right angle so that the loop will be introduced into the uterine cavity in a frontal plane. This is important to avoid cramping pain.

The plunger which is already one or two inches within the barrel of the inserter is now paused in all the way, extruding the loop into the uterine cavity. Insertion should be done with a firm, slow pressure on the plunger allowing the loop to recoil within the uterus. The plunger is then withdrawn completely to prevent its binding or pulling on the thread, after which the inserter is pulled out of the uterus.

The thread which extends outside the cervix does not need to be cut unless it is too long. The woman needs to be taught to feel the thread over the cervix.

Review with the woman who to feel for the string, what symptoms to observe and when to return to the clinic.

## PROCEDURE FOR REMOVING AN IUD

Removal of the IUD is indicated if the woman would like to have another baby or if some complication such as heavy bleeding or infection occurs.

Supplies

1. A good light source (flashlight or lamp).
2. A pair of surgical gloves.
3. A sterile speculum.
4. An examining table or bed.
5. Antiseptic sponges.
6. An artery forceps.

Steps in the procedure:

The woman is placed in the position for a pelvis examination. Wipe the external genitalia with an antiseptic swab and insert the speculum gently as in the IUD insertion.

After exposure of the cervix and the IUD string, an artery forceps is used to grasp the thread. A gentle steady pull will cause the loop to come out.

## SURGICAL

A. Vasectomy: The vas deferens is cut.

This is very simple operation compared to a woman's because the tubes are close the skin and not inside the abdomen. It can be performed in 10 to 15 minutes by a Medical Officer. The man can go home immediately after the operation and it does not cause any disability.

> Note: There is a risk of pregnancy for three months after the operation. This is because those sperm which were released before the operation are stored and it takes about three months to empty the sac. Therefore, a condom or other method should be used for the three months following a vasectomy.

B. Tubule ligations:

Double-time or tubule ligation: This operation is conducted on the tubes to the uterus. As in a vasectomy, here too the Fallopian tubes are cut in two places and tied. This procedure blocks the passage of the egg(ovum) from the ovary to the uterus, so there is no chance of pregnancy. Since the tubes are in the abdominal cavity, a small cut is made on the abdomen to reach them.

TOPIC: NORMAL DELIVERY

Time: 1-2 sessions

OBJECTIVES

1. For the trainer to find out what the TBAs traditionally do at a normal delivery case.

2. For the TBAs to learn the safe procedures for delivering the baby and placenta, cutting the cord, checking for blood loss and immediate care of the baby and mother after deliver.

3. For the TBAs to use these new skills at every delivery case they attend and then teach this to other women. For the trainers to check they do this during the training course.

PREPARATION

You should take every opportunity to attend delivery cases with the TBAs. They should take priority over the scheduled sessions.

TEACHING MATERIALS

SCF Afghan picture book (cutting and tying the cord, checking the placenta, position of baby at resuscitation).
Kit for each
Bowl, jug, water.
Stove, fuel, matches.
Container for placenta.
Two handfuls of thick red fluid (red paint, four and water).
Doll, cord, complete and incomplete placenta (for each pair of TBA).

INTRODUCTION

Ask the TBA about their work and families.
Ask about 203 home visits from the last session and revise the main points.

| MAIN POINTS | HOW TO TEACH THIS |
|---|---|
| **1. Management of a Delivery.** | |
| The management of a delivery can be divided into these steps:<br>- Clean delivery.<br>- Care of the baby.<br>- Clean cord care.<br>- Care of the placenta.<br>- Care of the mother and checking for blood. | Explain that the management of delivery is divided into different steps. |
| **2. Clean Delivery.** | |
| A clean delivery can save lives.<br><br>Prepare for a **CLEAN DELIVERY** by:<br>. Lying the mother on a CLEAN plastic sheet.<br>. Delivering the baby with CLEAN hands, washed in the special way.<br>. Delivering the baby on to a CLEAN cloth. | . How do you deliver the baby?<br>. Discuss this. Afghan dais do not traditionally see the perineum or control the delivery of the baby.<br><br>. Demonstrate how to do a clean delivery using the kit.<br>. Get one of the TBAs to put the doll and the placenta under her dress, so that you can demonstrate the delivery. |

### 3. Care of the Baby

The TBA should follow these steps with the baby straight after delivery:

- Check whether they baby is breathing normally.
- Wipe mouth, nose and eyes with the small cloth pieces.
- Quickly rub the body dry.
- Wrap head and body in a clean cloth.
- Put the baby to the breast.

- What do you do with the baby after delivery/
- Demonstrate the different steps using the doll or a real baby.
- Get a TBA to repeat this.
- Get all TBA to repeat this in pairs using their kits.

---

## 4. Clean Cord Care.

The TBA should remember THE CLEANS when caring for the cord.

**THE CLEANS**

Remember **THE CLEANS** for care of the cord:

* Clean hands, washed again in the special way just before cutting the cord.
* Clean blade for cutting.
* Clean thread and cotton piece for tying and cleaning the cord.
* Clean surface for cutting the cord.
* Nothing else should be put on the cord.

THE CLEANS protect the baby from tetanus and infections of the cord.

* How do you care for the cord?
* Discuss this. Afghan dais traditionally use non sterile scissors, knives, and stones to cut the cord. They put ashes, kohl, henna, cow dung, burnt clothes and grease on the cord after cutting it.

* Demonstrate how to cut the cord, using the doll and the cord.

  - Do the special handwashing.
  - Wait until the cord goes white and thin and stops pulsating.
  - Take thread and tie 3 knots at this distance from the baby:
    1st: 2 fingers width.
    2nd: 3 fingers width.
    3rd: 4 fingers width.
  - Tie them tight to stop any bleeding.
  - Pick up sterile blade, do not touch the cutting edge.
  - Cut the cord between the second and third knot.

| | |
|---|---|
| | . Get one TBA to repeat this.<br>. Get the TBAs to practice this is pairs using their kits.<br><br>. What sicknesses do THE CLEANS protect the baby from? |

**5. Care of the Placenta.**

| | |
|---|---|
| The placenta should come out within one hour of delivery. | . How soon does the placenta usually come out after the delivery? |
| If the placenta has not come out after half an hour the TBA can start taking action. **(See Topic: Danger Signs at Delivery.)** | . Discuss this. |
| When the placenta comes out, the TBA must wash it in a bowl of water and then examine it, to see if it is complete. If a piece of the placenta is missing, the TBA should refer the woman to the clinic. | . Demonstrate how to wash the placenta in a bowl of water and examine it for missing pieces. Show the incomplete model placenta. Explain that this is a danger sign.<br><br>. How do you normally dispose of the placenta? Discuss this. |
| The placenta should be disposed of according to local custom. | . This Afghan custom is to bury or to burn it. |

## 6. Care of the Mother and Checking for Blood Loss.

The TBA should take care of the mother after delivery by:

- Cleaning away the blood between her legs.
- Giving her a clean set of clothes.
- Placing a clean perineal pad between her legs and checking it every few minutes to see how much bleeding there is. The TBA should stay for a few hours to check the mother's blood loss.
- Changing bed clothes.
- Giving her food and sweet drinks.
- Putting the baby to the breast.

Normal blood loss at a delivery is about two handfuls or one tea glassful.

- What do you do for the mother after delivery?
- Discuss this. Explain that the traditional practice of giving the mother halwa and sweet tea is good.
- Demonstrate the care of the mother, using a TBA as the mother.
- Get 2 TBAs to repeat this.
- Show normal blood loss by pouring a tea glass or 2 handfuls of red fluid on a sheet.
- Explain that if there is more blood loss, this is a danger sign and the TBA should send for help. (See Topic: **Danger Signs at Delivery.**)

## REVISION OF MAIN POINTS

Zara's family know that you are a trained TBA and have called you to her house to attend her delivery.

1. Show me how you would prepare for an then do the delivery.

2. Show me what you would do with the baby.

3. Show me how you would care for the cord.

4. Show me how you would care for the placenta.

5. Show me how you would care for Zara.

## HOME VISIT

Ask the TBAs to do monthly home visits on all the pregnant women in their area and discuss with the family about calling them as soon as the woman goes into labour. The TBAs should also check that the family have prepared all the items for the delivery. They should teach other women at these home visits what they have learnt in this session.

## TOPIC: NORMAL DELIVERY

### CLEAN DELIVERY

The baby will be born very soon after the following things happen: the mother wants to push, the pains come very frequently (every 2-3 minutes) and with every pain you can see a little bit more of the baby appearing at the birth opening (perineum). Afghan dais traditionally feel over the birth opening for its fullness towards the end of labour rather than looking. There are several positions in which the woman can deliver (kneeling, sitting, squatting, lying) and the TBA should help the woman decide which is most comfortable for her. Western midwives are taught to protect the birth-opening and to control the delivery of the head to prevent tears. This method is not really culturally acceptable to Afghans for 2 reasons:

- Women are reluctant to Afghans for 2 reasons:
- the dais are reluctant to examine the area.

Afghans attach great shame to the whole birth process which explains why dais have a low status in their society, why they are reluctant to refer complicated delivery cases and why some women do not even take off their shalwar for the delivery. As protecting the birth opening and controlling the delivery of the head ar not life saving procedures you should not insist on teaching these unless the TBAs request it. Instead concentrate on THE CLEANS at delivery, since they are life saving because they prevent tetanus and pelvic infections in the mother and tetanus and cord infections in the baby.

The **LIFE SAVING PROCEDURES** at **DELIVERY** are:

- Clean plastic sheet under woman.
- Clean hands for delivering baby and cutting cord.
- Clean razor blade for cutting cord.
- Clean cloth for the baby.
- Do not put anything on the cord or the perineum.

Making these sessions as practical as possible, with all the FHWs practicing the procedures in pairs and you supervising.

**CARE OF THE BABY**

The baby should be delivered on to a clean cloth. Normally babies cry immediately or within 1-2 minutes. If there is any delay in the baby breathing this can lead to brain damage and slow development in later life. A baby with breathing problems will be floppy and blue. Babies born too soon, at 7 or 8 months will be very small with immature lungs and will have breathing problems at birth. After checking the breathing the FEW should clean the baby's mouth and nose to remove mucus. You can show her how to twist a cloth piece to a point for cleaning inside the nose, and round the finger for cleaning in the mouth. If there is a lot of mucus, this can be drained out by holding the baby on the forearm and tilting his head and chest down slightly. Rubbing the baby with a clean cloth on the back and the soles of the feet will stimulate breathing.

Babies can get a very serious eye infection leading to blindness and to prevent this the TBAs should clean baby's eyes with 2 small, clean cloth pieces after delivery and watch carefully for signs of an infection (redness, swelling, pus) developing.

Newborn babies lose heat very quickly, especially from the head and wet skin. To prevent the baby becoming too cold the Tabs should quickly rub the baby dry with a clean cloth and wrap the baby's body and head in clean clothes. They should then put the baby to the breast to get warmth from the mother. Sucking at the breast makes the uterus hard and reduces mother's blood loss. As the uterus contracts down the mother will have severe afterpains. The mother should be reassured the afterpains are a good sign to show that her body is returning to normal again.

**CLEAN CORD CARE**

The Afghan custom is to cut the cord with non-sterile instruments like the household knife, scissors, a razor blade or a stone from the ground. They do not always wash their hands with soap before cutting the cord. The cord is tied with embroidery thread or a piece of material torn from the woman's or dais' dress. A large

variety of substances are put on the cord after it is cut to help it dry and heal, including kohl, ashes, henna, cow dung and spirit. The cord may then be bound in a cloth, which is not always clean, for a few days. The possibility of contamination by tetanus microbes exists at every stage of the cord care process as practised by Afghan women. **THE CLEANS** (clean hands, clean surface, clean surface, clean equipment, clean covering, not putting anything on the cord) for cord care will help prevent this.

At birth the cord is fat, blue and pulsates. This means that blood is still being pumped into the baby from the mother and placenta. They baby needs all this blood. When blood stops pumping into the baby, the cord will go thin, white and stop pulsating. The TBA should wait until this happens so that the baby can get as much blood as possible from the mother before the cord is cut. The TBA should be discouraged from handling the cord too much even if she clean hands. One example of this is when they "milk" the cord blood into the baby. This is not necessary and should be discouraged.

The TBA should tie the cord tightly in 3 places using the sterile thread. The cord contains three large blood vessels. Some babies have been known to bleed to death from a cord that has not been tied tightly enough to close off these vessels. If the cord is tied when it is still fat and blue, the knot will loosen when the cord goes thin. This is another reason for tying the cord after it has gone thin and white. The cord is cut with 2 knots left on the baby's side. The 2 knots act as a safeguard, so that if one knot becomes loose, the other will stop the baby bleeding. The knot ion the placenta side of the cord will prevent blood contaminating other people with the risk of jaundice, hepatitis B and AIDS.

The TBA should try to pick up the razor blade without touching the edge she is going to use for cutting the cord. The razor blade should then be disposed of in a safe place and not used again. Tetanus microbes survive best in wet places with little air such as tightly bandaged cord dressings and deep dark skin wounds. This is why it is important to keep the cord short, dry and clean. After delivery the cord can be clean with boiled water and a small cloth piece from the metal container. If there are flies around, the cord can be loosely covered with the baby's chemise or a light cloth put over the cot. Nappies are rarely used by Afghans. The Afghan custom

of extending the cord thread around the baby's neck is good in that it reduces soiling from urine and stool by pulling the end of the cord up. The cord normally dries and falls off after a few days. Some Afghans believe that if they bury the dried cord, jinn will not attack the newborn baby.

**CARE OF THE PLACENTA**

The placenta should deliver within one hour of the birth of the baby. White skin from the water bag will be attached to the placenta. When the placenta is ready to deliver there will be 3 signs that it has separated from the wall of the uterus. These signs are:

1. Bleeding from the vagina, about a tea glassful.

2., Cord lengthens.

3. Afterpains. These are like labour pains but not as strong.

The TBA should ask the mother to push or to cough, and the placenta will come out easily. She should not pull on the cord. This can kill the mother by causing heavy bleeding or pulling the uterus out.

When the placenta comes out the TBA should wash it in a bowl of water and then examine it to see if it is complete. A piece of the placenta left inside the uterus can cause continued bleeding or a pelvic infection. (See Topic: Danger Signs at Delivery.)

The TBA must take care to cover any cuts on her hands, when handling blood, because the blood may be contaminated with hepatitis B or AIDS microbes.

If the placenta is not delivered after half an hour, the TBA can start taking action. **(See Topic: Danger Signs at Delivery.)**

**CARE OF THE MOTHERS AND CHECKING FOR BLOOD LOSS**

The mother should be cleaned, made comfortable and allowed to rest. She should let the baby suck at her breasts for a few minutes fore

she sleeps. This will encourage bonding between the mother and baby and stimulate the production of milk. The blood stained bed clothes should be removed and replaced with clean ones. The should note the amount of blood loss on the bed clothes and plastic sheet. The woman's body should be washed and she should change into clean clothes. A clean perineal pad is placed between her legs to soak up the blood and to allow assessment of the amount of blood loss. She can be given food and sweet tea and then allowed to rest.

**ISLAMIC QUOTES**

- When the Prophet's (PBUH) daughter, Fatma was born, he saw that his companions looked sad. He told them that having a daughter was like having an aromatic flower for him to inhale its fragrance and God will provide for her.
- The Prophet's (PBUH) unmarried daughter, Fatma, assisted at a delivery. The family did not know who she was until after the delivery.

**TOPIC: DANGER SIGNS AT DELIVERY**

Time: 2 sessions

**OBJECTIVES**

(Part2 Chapter 12...12)

1. For the trainer to find out if the TBAs know about any danger signs at delivery and what they do about them.

2. For the TBAs to learn how to detect and manage the danger signs at delivery: cord round neck, breech, baby very small or not breathing, retained or incomplete placenta and mother with heavy bleeding.

3. For the TBAs to correctly detect and manage the danger signs at any delivery cases they attend. For the trainer to check they do this during the training course.

**PREPARATION**

Discuss with the clinic staff and members of community the causes and numbe of maternal and neonatal deaths in your group's area.

**TEACHING MATERIALS**

SCF Afghan TBA picture book (mouth-to-mouth, management of heavy bleeding, danger signs).
Kit (5 perineal pads).
Doll, cord, complete and incomplete placenta for each pair of TBA.
Soft uterus made out of knitted wool or cloth for each pair of TBA.
Hard uterus made out of ball in sock.
1 litre of thick red liquid (mix red paint, water and flour).

**INTRODUCTION**

Ask the TBAs about their work and families.
Ask about 2-3 home/visits from the last session and revise the main points.

**LESSON PLAN**

| MAIN POINTS | HOW TO TEACH THIS |
|---|---|
| 1. The Danger Signs at Delivery. | . What do women and babies die from t the time of delivery in your |

Delivery can be a dangerous time, and many Afghan women and babies die. The TBAs can help prevent these deaths in their community by learning how to detect and to manage the following danger signs.

These are the **DANGER SIGNS** at **DELIVERY:**

| | |
|---|---|
| Delivery | Cord round neck. |
| | Breech. |
| Baby | Not breathing. |
| | Very small. |
| Placenta | Retained. |
| | Incomplete. |
| Mother | Heavy bleeding. |

community?

- Discuss this.
- What are the danger signs that warn you that these women and children are going to die?
- Discuss this.
- Explain that in this session you will teach the TBA how to use the danger signs to prevent some of these deaths.

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**2. Cord round the Neck.**

The TBA must check round the baby's neck for the cord, which feels like a soft rope. If she feels the cord, she should pull it gently over the baby's head.

- What do you do if the baby has the cord round the neck?
- Discuss this.
- Explain that if the cord is too tight, it might stop the baby coming out.
- Demonstrate how to feel for the cord and remove it using the doll, cord and pelvis or box. Get 1 TBA to repeat this.
- The TBAs should repeat this in pairs.

---

## 3. Breach Delivery.

If the baby's bottom or legs come out first, the TBA should follow these steps:

- Do not touch the baby until the shoulders are delivered.
- If the baby's abdomen is not facing the ground, gently and slowly turn it so that it is. The baby's back should then be facing the TBA.
- Gently lift the infant's back towards the mother's abdomen. Do not pull on the baby's head.
- Ask the mother to push gently, and the baby's head will come out.
- Give **MOUTH-TO-MOUTH BREATHING** if the baby is not breathing.

- What do you do with a breech delivery?
- Get the TBAs to show you, using the pelvis or box and doll.
- Do you have any problems with breech deliveries/
- Discus this. Explain that they can be very dangerous if the head gets stuck inside.
- Remember Gul Bibi's story.

- Show pictures of the different steps to follow for a breech delivery.
- Demonstrate these steps using the pelvis, box and doll.
- Get a TBA to repeat this.
- Get the TBAs to repeat this a pairs.

---

## 4. The Baby is Not Breathing.

If the baby is not breathing normally, the TBA should take the following steps:

should not be harder than blowing out a match.
Stop to see if the baby is breathing, if not then start blowing again.

- Clear mouth and nose with cloth pieces.
- Lie the baby on her forearm or on a pillow so that its head is lower than its chest.
- Tap the feet and rub the baby's back.

If the baby is still not breathing the TBA should give gentle **MOUTH-TO-MOUTH BREATHING.**

**MOUTH-TO-MOUTH BREATHING**

If a baby does not breathe at delivery, this is the procedure for life saving **MOUTH-TO-MOUTH BREATHING:**

- Lie the baby on its back, with the head bent back.
- Put a gauze over the baby's mouth.
- Cover the baby's mouth and nose with your mouth.
- Blow gently into baby's mouth frequently so that chest rises. It

- What do you do if the baby s not breathing?
- Discuss this. There are

many traditional practices such as heating or pricking the placenta.

- Demonstrate the different steps, using a doll and pillow.
- Get a TBA to repeat this.
- Get the TBAs to repeat this in pairs.

- Explain that if the baby is still not breathing after these steps, the TBA should do MOUTH-TO-MOUTH BREATHING.

- Show a picture. Demonstrate the different steps of MOUTH-TO-MOUTH BREATHING. Blow on each TBAs hand or blow out a match to show how hard to blow.
- Get a TBA to repeat this.
- Get the TBAs to repeat this in pairs.

---

**5. Baby is Very Small.**

If the baby is very small at birth it will get very cold and hungry. The TBA should advise

- What do you do with very small babies?
- Discuss this. Some

the following things.

- Keeping the baby very warm by wrapping its head and body in warm clothes.
- Feeding the baby very often. If the baby is too weak to suck, then the TBA should show the mother how to express her milk and feed it to the baby with a clean spoon.

Afghans use a hay box to keep very small babies warm.

- Explain the importance of keeping very small babies warm.
- What do you do if the baby is unable to suck?
- Demonstrate how the mother can express her milk and give it with a clean spoon.

---

## 6. Retained Placenta.

If the placenta has not delivered within half an hour, the TBA should encourage the placenta to come out.

You can encourage a RETAINED PLACENTA to come out by:

- Getting the baby to suck at the breast.
- Getting the mother to pass urine.
- Getting the mother to squat down.
- Getting the mother to cough, sneeze or push down.
- Massaging the uterus gently.

**THE FHW SHOULD NEVER PULL ON THE CORD.**

The placenta should come out within one hour of the delivery. If it does not, or there is heavy bleeding, these are danger signs and the TBA must send the mother urgently to the clinic or to the hospital. How long after delivery does the placenta usually come out?
Discuss this.

- What do you do to help the placenta to come out?
- Afghan dais use many good traditional methods to help delivery of the placenta including putting snuff in the nose and their hair in the back of the women's mouth.

- What happens to the woman if the placenta does not come out?
- Discuss the danger of heavy bleeding or infection from the retained placenta.

- Explain the different ways to help the placenta come out.
- Role-play the different steps to help the placenta come out.
- Discuss how they can time half an hour (ask a man with a watch, night prayers).

- Explain that pulling on the cord in very dangerous because the uterus might be pulled out as well. This can kill the mother.

- Explain that if the placenta has not come out

after 1 hour, the woman must be referred to the clinic.

---

**7. Incomplete Placenta.**

The TBA must always check the placenta to see if it is complete. If there is a piece missing, this is a danger sign that the mother might develop heavy bleeding or an infection.

The TBA must refer the mother to the hospital or the clinic.

- Do you every check the placenta to see if a piece is missing?
- What happens to a mother who has an incomplete placenta?
- Explain that if a part of the placenta is missing, this is a danger sign that the mother might develop heavy bleeding or an infection.
- Explain that the TBA must refer the woman to the hospital.
- Role-play this with a TBA.

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**8. Mother has Heavy Bleeding.**

There is always some bleeding after the placenta is delivered. This is usually about 2 handfuls and is not dangerous.

- Show normal blood loss with 2 handfuls of red fluid on a plastic sheet.
- Show heavy blood loss with 1 litre of red fluid

But the TBA should look for the DANGER SIGN of heavy bleeding.

**HEAVY BLEEDING** after the placenta has come out is a **DANGER SIGN.**

Bleeding is DANGEROUS if:

- The perineal pad is soaked with blood despite being replaced with a new pad every few minutes.
- the woman is weak and dizzy.
- The uterus is large and soft.

Many Afghans die from heavy blood loss after delivery. The TBAs must look for the DANGER SIGN of HEAVY BLEEDING. If they detect it, they should follow the life saving procedure for heavy bleeding.

The LIFE SAVING PROCEDURE for HEAVY BLEEDING after delivery is:

- Send someone to the clinic for help.
- Get the mother to pass urine.
- Lie the mother flat and raise her legs on a pillow.
- Get the baby to suck at her breast (if on a plastic sheet.
- What would you do ifwoman lost too much blood?
- Discuss this. Many Afghan women think that heavy bleeding is good, and that it gets rid of bad blood.

- Explain the signs of heavy bleeding. Put the soft and hard uterus under your dress and get the TBAs to feel it.

- Explain that heavy bleeding is a danger sign, and if the TBAs do not try to stop it, the mother might die.

- Demonstrate the different steps to the TBAs.
- Get 2 TBAs to repeat these steps in a roleplay.
- Get all the TBAs to repeat this role-play, with the one playing the mother, putting the soft uterus under her dress.

the baby cannot suck pull the nipple instead).

- Massage the uterus to make it hard.
- Give the mother plenty of fluids.

If the bleeding does not stop, the TBA should continue rubbing the uterus, so that it stays hard and send the woman to the clinic urgently.

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REVISION OF MAIN POINTS

1. Show me what you would do for a baby with a cord round the neck.

2. Show me how you would deliver a breach.

3. Show me what you would do for a baby who is not breathing.

4. Fameeda has delivered a very small baby, and her family is very worried because the baby s too weak to suck.
   What advice would you give to Fameeda about looking after her baby?

5. Khalda delivered half an hour ago and her placenta has not come out. Her mother starts pulling on the cord.
   What would you do about this?

6. It is now one hour since Khalda's baby delivered and the placenta is still inside.
   Show me what you would do?

7. Gul has just given birth to a very healthy boy. You inspect her placenta and notice that a piece is missing.
   What would you do?

(Part2 Chapter 12...22)

8. Gul starts bleeding heavily.
Show me what would do about this.

**HOME VISIT**

The TBAs should perform the skills in this session at every delivery case they go to and teach it to other women who are attending the delivery.

**REFERENCE PAGES**

**TOPIC: DANGER SIGNS AT DELIVERY**

**INTRODUCTION**

Delivery can be a dangerous time for Afghan women and their babies. Women die from heavy bleeding, retained placentas and pelvic infections. Babies die from damage at birth, breathing problems, congenital abnormalities and being too small. Discuss with the clinic staff and the TBAs what delivery problems they have seen and how they manage them. This session covers many life saving procedures.

**BABY HAS CORD ROUND NECK AT BIRTH**

In about 1 in 3 deliveries the cord is looped round the baby's neck usually once but sometimes 2 or 3 times. If these loops are tight the baby may have difficulty coming out. Slipping these loops over the baby's head is quite easy. The TBA should feel for the cord round the neck at every delivery, it feels like a soft rope, and gently slip it over the baby's head. She should not pull hard on the cord otherwise it might tear and cut off the baby's blood supply. If the cord will not slip over the head she should never try to cut it. Some Afghans believe that the baby will have one brother for every loop.

**BREECH DELIVERY**

Normally the head delivers first. In about 3 in 100 deliveries the bottom delivers first. This is called a breech delivery and is more dangerous for the baby than the mother because the baby's head gets

stuck in a partially opened cervix. The baby suffers a lack of oxygen from the neck being strangled or the cord becoming pinched in the cervix. The placenta can separate, cutting of the blood supply before the head has delivered and the baby has had a chance to breathe independently. Pressure on the head sometimes causes bleeding in the brain and leads to brain damage. The baby sometimes takes a breath while still inside the birth canal and inhales a lot of mucus into the lungs, causing breathing problems at delivery and chest infections later on. The problem of the baby's head getting stuck is more likely to occur in women having their first baby. All breeches should be delivered in hospital just in case an operation is required to remove the baby. But this is particularly important for a woman having her first baby. You can demonstrate to the TBA the special procedure for delivering the head of a breech. You should emphasise that they must be very gentle and let the breech more or less deliver itself. The baby will probably need some mouth-to-mouth breathing after the delivery. Breech babies are often premature (7-8 months old) and need special attention. **(See Topic: Danger Signs at Delivery; Small Babies.)**

Afghan dais have performed many breech deliveries often without great difficulties, as they say "the breech just delivers itself". Ask your TBAs if they have done any breech deliveries and if so what problems they had. Explain to them that it is still safer for the baby to be born in a hospital. **(See Topic: Danger Signs in Pregnancy; Story of Shahnaz and Gul Bibi.)**

**BABY IS NOT BREATHING**

If a newborn baby is not breathing but the heart is beating the TBAs have a chance of saving it. Traditionally they try a number of methods involving the placenta to make the baby breathe, such as heating the placenta on the hot plate for making bread, pouring water over it, pricking it with a needle, or milking blood from it back into the cord. The may also do any of the following: pour cold water on the baby, blow into the mouth, nose or ears, pinch the nose and push a stick into the nose. Some of these methods will stimulate the baby to breathe.

Babies who are born too early, are very small, breech, twins or from a prolonged labour are more likely to have breathing problems

at delivery. Babies with breathing problems are floppy and blue. If they have a heart beat there is a good chance of saving them by clearing the airways and doing mouth-to-mouth. The longer it takes to start breathing the more likely the baby is to have brain damage and slow development, the milestones will be very delayed. (See Topic: Danger Signs in Children; Reference Pages.)

The TBAs should first clear mucus from the airways. They can do this by winding a piece of cloth round the finger to clean out the mouth and then twisting a piece of cloth to clean out the nose. The can hold the baby on their forearm and tilt its body so that the head is lower than the chest. This will allow the mucus to drain out. Stimulating the baby by rubbing the back vigorously with a cloth or tapping the feet will also help. If these methods fail the TBA should do mouth-to-mouth breathing. Advise her to blow only with as much force as is needed to blow out a match. Any more force than this will damage the baby's lungs. They should blow about 25 times a minute, so that the chest rises. Air may also pass into the abdomen. If the TBA sees the abdomen start to swell up she should press on it from below to push the air out. She should blow into the mouth a few times and then stop to see if the baby is breathing. If it is not breathing, she should start blowing again. She should stop if the baby has not started breathing after 20 minutes.

**BABY IS VERY SMALL**

Small babies are those who weigh under 2.5 Kgs. About 1 in 5 babies (probably more among Afghans) are born too small and too early and they are at great risk of dying in the first month of life from infection, breathing problems, jaundice, anaemia, low blood sugar, and getting too cold. They have these problems because their blood, lungs, liver, and nerves are too immature to work properly. To prevent them dying they must be kept warm and fed frequently. They do not have a layer of fat to prevent them losing heat and they are not active enough to make heat. They become cold very quickly. They must be dried quickly after birth and wrapped from head to foot in warm clothes. Some Afghan use a haybox to keep small babies warm and this is a very good idea. These small babies also have difficulty sucking, swallowing and coughing.

If the baby is unable to suck, the mother must express her milk with clean hands and give it in little sips to the baby with a clean spoon. Feeding frequently will stop the blood sugar falling too low. A very low blood sugar from not feeding often enough can cause brain damage in these very small babies. These babies should be weighed and examined regularly by the clinic staff.

**RETAINED PLACENTA**

A retained placenta is one of the main reasons for death from heavy bleeding after delivery. The priority is to treat the bleeding and to send the woman to the clinic urgently. Afghan women use a number of traditional methods for encouraging the delivery of the placenta. They give the woman humorally hot foods such as eggs, that are though to increase contractions. They may heat ta brick and apply it to the women's back or massage her abdomen. The may also tie a shoe or cow dung cake to the cord, tie a cloth round the waist, push down on the abdomen, or they may obtain a tawiz from the mullah. They do not realise that women die from heavy bleeding. They think women die from the retained placenta moving up to the heart, and that by tying something to the cord or round the waist, they can stop the placenta moving.

If the placenta is not delivered after half an hour, the TBA can start taking action:

- **Get the baby to suck at the breast.**
  This will cause the uterus to contract and push to placenta out. The mother will notice that she has afterpains when the baby sucks at the breast. Afterpains are a sign of the uterus contracting and going hard. They are a good sign. If the baby is too weak to suck, the TBA should gently pull the mother's nipple just as the baby would pull the nipple if it were sucking.
- **Get the woman to pass urine.**
  A full bladder will press on the birth canal and stop the placenta coming out. A full bladder is a common cause of retained placenta.
- **Get woman to squat down.**
  This is the best position for delivering both the baby and the placenta.

- **Get the woman to cough, sneeze, vomit or push down.** These things increase pressure on the abdomen and push the placenta out. There are many traditional Afghan ways of doing this:
  - Coughing: The woman is made to smoke a chilum pipe, or herbs are burnt in the room.
  - Sneezing: Snuff is inserted in the woman's nose or herbs burnt in the room.
  - Vomiting: Ticking the back of the mother's throat with her hair or a stick.
  - Drinking: The woman is made to drink bitter herbs.
  - Pushing: Firing shotgun against her shoulder. Making the woman blow into a bottle.

If there is bleeding or the placenta does not come out after one hour, the TBA should send the woman to the clinic or hospital. The clinic staff will give the woman an injection of Ergometrine and they will put up an intravenous drip if she is bleeding. If the placenta is not delivered after this injection or the bleeding continues the woman will be sent to the hospital for an operation to remove the placenta.

Some women have a history of retained placenta after each delivery and they should be advised to deliver in hospital.

INCOMPLETE PLACENTA

The TBA should check every placenta for a missing piece. She can do this by washing the placenta in a container of water to get rid of the clots and then looking at it in a good light. On a flat surface the lobes will fit together if the placenta is intact. If there is a lobe missing from the placenta it means that it is still inside the uterus. This lobe is dangerous and will cause heavy bleeding or a pelvic infection if left in place. An incomplete placenta is a danger sign and the TBA must refer the woman to the hospital.

MOTHER HAS HEAVY BLEEDING

One of the main causes of death in Afghan women in heavy bleeding. The TBA can save the lives of many women by checking the blood loss after delivery and during daily home visits. She can follow these

steps for treatment of bleeding.

- **Send to the clinic for help.**
  This is very important. If the clinic is closed the TBA must arrange with the family to take her to a hospital with her baby so that she can continue breast feeding. On the way to the hospital or clinic, the uterus should be rubbed to keep it hard and the woman should drink fluids. The woman may need intravenous fluids and possibly an operation on her arrival at the hospital;. A member of the family who can give blood in case she needs a transfusion should go with her.
- **Lie woman flat and raise her legs on a pillow.**
  This will help the circulation of blood to important organs like the heart and brain.
- **Get the baby the suck at the breast.**
  if the baby will not suck, gently pull the nipple just as the baby would if it were sucking.
- **Massage the uterus to make it hard.**
  Find the top of the uterus by putting your hand over the abdomen below the navel. It will feel like a soft ball. Rub it gently but quickly with your fingers until it becomes hard. This may take some time. The TBA can teach the mother herself or another woman present to rub the uterus whenever it goes soft or if the woman feels blood running out. THE UTERUS MUST STAY HARD.
- **Get the women to empty her bladder.**
  The will help the uterus to contract.
- **Give the mother lots of fluids. This can be anything** that the woman wants. The finds will replace some of the fluids lost with the bleeding.

**TOPIC: VACCINATIONS**

Time: 1-2 sessions

**OBJECTIVES**

(Part2 Chapter 12...28)

1. Four. the trainers to find out what the TBAs know about vaccinations.

2. For the TBAs to learn which diseases can be prevented by vaccinations and how vaccinations work.

3. For the TBAs to make regular home visits to all children under 2 in their area, and make sure that they are sent regulary to the "Under 2 Clinic" for their vaccinations. For the trainer to check that they do this during the training.

**PREPARATION**

Find out from the clinic staff which vaccine preventable diseases are common in the community. Arrange for the TBAs to visit an "Under 2 Clinic".

**TEACHING MATERIALS**

Pictures (pictures of the diseases which can be prevented by vaccinations).

**INTRODUCTION**

Ask the TBAs about their work and families.
Ask about 2-3 home visits from the last session and revise the main points.

**LESSON PLAN**

| MAIN POINTS | HOW TO TECH THIS |
|---|---|
| 1. Why Vaccinations are . | Can you remember the |

**Important.**

The TBA should explain the following:

- Vaccinations protect against the 6 childhood killer diseases.

**VACCINATIONS**

Vaccinations protect against:

- Measles
- Whooping Cough, ie Pertussis.
- Diphtheria.
- Tuberculosis.
- Tetanus.
- Polio.

- Children need 5 vaccinations sessions.
- These 5 vaccinations sessions are best started at birth and completed in the first year of life.
- The clinic will tell the family when to bring the baby back for the next vaccination session.
- The clinic will give the family a vaccination card, which they must keep carefully, and take to every clinic

diseases that vaccinations protect against?

- Show a picture of each disease and point to the different parts of your body.

| | |
|---|---|
| Eyes | Measles. |
| Mouth | Whooping Cough (ie Pertussis). |
| Throat | Diphtheria. |
| Chest | Tuberculosis. |
| Arm | Tetanus. |
| Leg | Polio. |

- How many vaccinations should the baby be given?
- Explain that the baby is not fully protected until he or she has received all 5.

- When should the vaccinations be started? When should they be finished?

- Role-play a TBA advising a mother who does not want to take her baby for vaccination because he has a cough.
- Get 2 TBAs to repeat this with a child who has an earache.

- Explain that children will get mild fevers, rashes and sores after

visit.

- It is safe to vaccinate newborn, thin and sick babies.
- Sometimes after the vaccination, the baby may develop a small fever, rash or sore. This means the vaccination is wording and the mother should not worry.

vaccinations. The must warn the mothers about this and reassure them it is nothing to worry about.

- Role-play a TBA advising a mother who is very worried because her baby has a rash following a vaccination 2 days ago.

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**2. The Newborn.**

The TBA should advise the family to send the newborn baby for a vaccination to protect against tuberculosis and polio as soon as possible after the delivery. She should explain that this will leave a sore on the arm which will heal after a few weeks, leaving a small scar.

- When should a mother send her newborn baby for its first vaccination?
- Which vaccinations will the newborn get?
- Role-play a mother who does not want to take her new baby out in the cold for the first vaccination.

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**3. When Babies should be Vaccinated.**

The VACCINATION SCHEDULE for babies is:

Do you know the different times to vaccinate a child?

| Age | Vaccine given |
|---|---|
| At birth | BCG<br>Polio 0 |
| 6 weeks | DPT 1<br>Polio 1 |
| 10 weeks | DPT 2<br>Polio 2 |
| 14 weeks | DPT 3<br>Polio 3 |
| 9 months | Measles |

DPT: Diphtheria BCG: Tuberculosis
Pertussis
Tetanus

A child not vaccinated at these ages can still start at any age under 2 years, but you have to respect the interval of 1 month between two vaccination sessions.

- Explain that the clinic staff will give the family a card and will tell them when to bring the baby back for the next vaccination. The family must keep the card safe and take it to every clinic visit.

- Explain that these vaccinations should be started soon after delivery and completed by 1 year. If not all 5 sessions are given, the baby will not be so well protected and may still get the diseases.

**REVISION OF MAIN POINTS**

1. Shireen has a newborn baby and does not want to take her baby to the clinic to be vaccinated in the first 40 days.
   **Why should you advise Shireen?**

2. Fameeda has heard that the baby gets a nasty sore with the first vaccination. She refuses to vaccinate her child.
   **What should you say to Fameeda?**

3. Latifa is worried because her baby is too thin and always sick. She thinks it is not safe to vaccinate her baby.
   **What should you advise Latifa?**

HOME VISITS

Ask the TBAs to visit all homes with small children and the check their arms for vaccination scars and their vaccination cards. Ask the TBAs to tell the story about Maryam and her baby.

REFERENCE PAGE

TOPIC: VACCINATIONS

THE DIFFERENT DISEASES WHICH CNA BE PREVENTED BY VACCINATIONS

The family needs to know that young children can be protected from some dangerous diseases. Use the HEAD-TO-TOE EXAMINATION to help the TBAs to remember the diseases.

**Measles.**
Point to your eyes. A child with measles always has red eyes.

Whooping cough.
Point to your mouth. A child with whooping cough will make a strange whooping sound and vomit after a bout of coughing. Show the TBAs what a child with whooping cough does, pointing to your mouth to show to whooping sound.

**Diphtheria.**
Point to your throat. Diphtheria causes severe swelling in the throat. You must explain that the vaccine does not prevent all throat infections, only the small number that are very dangerous and are caused by diphtheria microbes. People will lose confidence in vaccinations if they are told that they prevent all throat infections. They know that children, even those who have been vaccinated, have sore throats all the time.

**Tuberculosis.**
Point to your chest. Most Afghans know about TB and are very frightened of it. Thy often see the TB cavities in the lungs of animals who have died from TB.

Tetanus.
Use your baby to show how a child with tetanus stiffens the arms

and arches the back.

**Polio.**
Point to your leg and explain that a child with polio is lame.

Parents may be afraid of these vaccinations because they have heard that they can give the baby a sore that takes a long time to heal or a fever and rash. If a mother is busy with her other children she does not want to look after a baby which becomes sick after being vaccinated. Afghans do not like to take the baby out of the house in the first 40 days after delivery for fear of the evil eye. They are therefore reluctant to take newborns to be vaccinated. The TBA should explain that the parents have to think of the baby's future. The vaccinations are like a special tawiz for the baby that will protect against jinn, the evil eye and anything else that the parents think cause disease. The baby has to have these vaccinations 5 times in the first year because the baby cannot be fully protected against all diseases in just one vaccination session. In the same way one tawiz will not protect the baby against all diseases.

**HOW VACCINATIONS WORK**

Children only get whooping cough or measles once in their life. If they survive the illness, they do not get these diseases again because their bodies have learnt how to fight the whooping cough and measles microbes. We say that they have protection from these diseases. This is what vaccines do. They protect the body from attack by microbes of the 6 diseases. Vaccines are like an army protecting the body from attack by enemy microbes. To get this army to full strength, will all its guns and tanks, the child needs 5 vaccinations starting as soon after birth as possible. The baby must be vaccinated few months before the usual age for getting the disease. For example a child usually gets measles around one year of age and is vaccinated at 9 months to protect him against measles. An army also needs enough food in order to fight the enemy. In the same way the child needs good food to fight the enemy microbes.

**THE VACCINE PREVENTABLE DISEASES**

Afghans recognise most of these diseases as being a problem in their communities. They have seen children disabled with polio. They are very frightened of the wasting disease TB, and keep away from people with signs of the disease. They have seen large numbers of children dying in an area following a measles or whooping cough epidemic. They have probably noticed a reduction in these diseases in their refugee community over the last few years. There will still be a few cases of these diseases in children who have not been vaccinated, but the large epidemics no longer occur in communities with a widespread vaccination programme. The mother's milk protects the baby from some of these diseases in the first few months of life.

**Measles.**
Like all the diseases, measles in infectious (it is caught from somebody else with the disease) and comes on about 10 days after being in contact with a person who has measles. This is why measles can spread so quickly through a community as an epidemic. the microbes are sneezed and coughed out and breathed in through the nose and mouth. The first signs are a runny nose, red watery eyes and a cough. After 2 days a red rash appreas behind the ears and then spreads down the body, disappearing after about 5 days leaving peeling skin. The child is miserable and has a very sore mouth and eyes. Some children also develop a rash on the lining of the lungs and bowel, leading to complications like severe chest infections or chronic diarrhoea. These complications cause malnutrition and a high death rate following measles. Another complication is blindness from the eye infection and vitamin A deficiency. Thin children are more at risk from these complications of measles. A child with measles should be kept away from other children and pregnant women until the rash has disappeared and should be checked by the clinic staff for complications that might need treatment. They should be weighed regularly to check that they have recovered from the illness and are growing normally.

**Whooping cough.**
Two weeks after contact with somebody who has whooping cough, the child will develop a runny nose, slight fever and cough. This will continue for 2 weeks and then the child will develop bouts of severe coughing followed by whooping sounds and vomiting. Between these coughing attacks the child is fairly well apart from losing

some weight from the repeated vomiting. The cough can continue on and off for up to 3 months and for the following 1-2 years the child will have repeated chest infections, because the chest has been weakened by the whooping cough microbes. These severe bouts of coughing, especially in children under 1 year, can lead to death from blocked breathing and bleeding into the brain. This is why it is important to start vaccinations to protect the baby against whooping cough as early as possible, around 6 weeks of age.

**Diphtheria.**
This begins like a cold with fever, headache and a sore throat. The child then becomes very sick, with a swollen neck, bad smelling breath and a membrane that grows over his throat and blocks the breathing. The child becomes very sick and dies if not treated quickly with special medicines.

**Tetanus.**
Remembers that older children and adults can also get tetanus from dirty skin wounds. Newborn babies get tetanus from dirty cords caused by not following THE CLEANS.

(For more information see Topic: Tetanus; Reference Pages.)

**Tuberculosis.**
All the other diseases described here occur more commonly in children than adults. TB is different in that there are probably more adults in a community with TB than children. These adults will give TB to children they come into contact with. Most adults get TB only in the lungs but in children Tb microbes can damage many parts of the body including the brain, bones and spine. A child with TB will have signs of ill health, weight loss, small fever, cough, and delayed development in the milestones over a period of several months. There is often an adult in the child's house with Tb. The BCG vaccine protects against TB and should be given as soon after birth as possible. The vaccine is given in the upper arm, usually on the right side. About 2-3 weeks after the vaccination a small red lump appreas over the vaccination site. This lump forms a small abscess after 1 week which then discharges forming crusts and a small ulcer. This ulcer slowly heals leaving a red scar that gradually goes paler in colour. The scar is permanent. This ulcer formation is quite normal and means that the vaccination is working

to protect the child against TB. The TBAs should advise women not to put anything on the scar and let it dry in the air. Try to check the children for scars in every house you visit. The TBAs should also get into the habit of doing this during every home visit they make.

(For further information see Topic: Tuberculosis;p References Page.)

**Polio.**

Polio microbes live n the bowel which is why the polio vaccine is given by mouth rather than by an injection. Polio microbes are passed in the stool and spread to other people via the 6 spreaders of disease (faeces, feeding bottles, flies, fingers, food, fluids). The sickness starts with fever, diarrhoea and painful muscles. If a polio vaccination is given to the child at this time it can make the muscle weakness which develops later even more severe. After a few days the fever and diarrhoea settle and the child is left with a weak limb, most often one or both legs, but sometimes an arm. If children have these signs they should be taken to the clinic to be checked. The parents must bend and straighten these limbs to stop them becoming fixed in the bent position. Six weeks after the fever and diarrhoea have settled, the parents should help the child to start walking. The child should be checked regularly at a special physiotherapy centre and may have to wear calipers to support the legs when walking. The special centre will advise the family on ways to adapt the house so that the disabled child with polio can lead as normal a left as possible.

THE VACCINATIONS SCHEDULE

| AGE | VACCINE | INTERVAL |
|---|---|---|
| At birth | BCG<br>POLIO MOUTH DROPS 0 | |

| | | |
|---|---|---|
| 6 weeks (1.5 months) | DPT 1<br>POLIO 1 | |
| 10 weeks (2.5 months) | DPT 2<br>POLIO 2 | 1 MONTH BETWEEN DOSES |
| 14 weeks (3.5 months) | DPT 3<br>POLIO 3 | |
| 9 months | MEASLES | |

WHY CHILDREN STILL DIE OF THESE DISEASES

There are several problems with the vaccination programme in the refugee villages which prevent it from giving complete protection to all children. These problems are as follows:

- Not all children under 2 years in the refugee village are reached by the vaccination programme.
  Some children are not brought for vaccination by their parents. Parents do not bring their children tot be vaccinated when they are sick or thin. These children are at high risk of getting the diseases so it is even more important to vaccinate them. The TBA must reassure parents that it is safe to vaccinate sick and thin children. Some parents do not want to have their children vaccinated because they hear that vaccines make the child sick with a rash, fever or sore. The TBAs must explain to the parents that these are only mild sicknesses and mean the vaccine is working to protect against the 6 more serious sicknesses. The TBA should tell them not worry about it.

- Children are not vaccinated young enough.
  Children should be vaccinated at birth or as soon after birth as possible. The TBAs can help improve the vaccination programme by reporting every delivery to the clinic. They must reassure the parents that it is safe to

vaccinate a newborn baby.

- Children do not complete all their vaccinations. Children need 5 vaccinations sessions to be fully protected. The parents must take the child's vaccination card every time they go to the clinic and the staff will check to see whether the child has completed all 5 vaccinations. The clinic staff will tell the parents when to come back for the next vaccination. The TBA can bring the vaccination cards of families under her care to the resupply sessions for the clinic staff to check. The parents must keep these cards in a safe place so that they do not lose them or get them dirty.

A community needs to have all the children under 2 years vaccinated to prevent epidemics of measles, whooping cough and polio. If only a few children in the community are vaccinated, these epidemics may still occur. The TBA can do many things to help improve the vaccination programme in her area. Afghan children need this protection for their return to Afghanistan where there is unlikely to be a vaccination programme for a long time.

**STORY ABOUT MARYAM'S BABY AND VACCINATIONS.**

This is the story of Maryam and her first baby. The whole family is very excited because Maryam has just had her first baby after being married for 6 years. The whole house celebrate and invite lots of guests. One of the guests is Kala Jan, the newly trained TBA who helped deliver Maryam's baby. Kala Jan congratulates Maryam's husband on his new baby son and advises him to take the baby to the clinic for his first vaccination. She explains that this first vaccination will protect his son against TB and polio, but the baby will need 5 vaccination sessions in the first year to protect against all the life threatening diseases.

Maryam is not happy about taking her newborn baby out in the cold weather. She thinks he is so beautiful that the evil eye will get him and make him sick. She feels very confused because she knows that vaccines are very important, but she just cannot bring herself to take her baby outside. Kala Jan hears that Maryam is very worried and comes to visit her. She listens carefully to everything

Maryam has to say. She then explains to Maryam that if she paints kohl between the baby's eyes, wraps him up in warm clothes from head to foot and hides him under her chador when she takes him out, the cold and evil eye will not be able to hurt him. She explains that the vaccinations are like a tawiz that will protect the baby. Maryam is very happy to hear this, and so she follows Kala Jan's advice, and takes her son to be vaccinated. After 3 weeks he gets a little scar on his arm, but Maryam is not worried about this, because Kala Jan had warned her this would happen and that it meant the vaccine was working.

A few months later savory children in the community come down with a fever that leaves them with weakness in the legs. The group leader tells Maryams's family that the clinic staff think these children have polio. The group leader is going round advising everybody to get their children fully vaccinated. He does not want an outbreak of polio in his area. He praises Maryam for getting her son completely vaccinated. "If the parents of those sick children had followed our example, their children would be healthy and walking around now," he says. Maryam feels very proud and her family compliment her on being a good mother.

Ask TBAs what they would say to mothers who do not want to take their newborn babis for vaccination.

(See also Topic: Home Visits to Children in their First 2 Years; Story of Subiya and her baby.)

**TOPIC: HOME VISITS DURING FIRST FEW DAYS AFTER DELIVERY**

Time: 2 sessions

**OBJECTIVES**

1. For the trainer to find out what the TBAs do during a home visit after delivery.

2. For the TBas to learn THE PROTECTION to teach during a home visit after delivery: cleanliness, good diet for the mother and the baby, vaccinations, clinic visits, detecting and

referring mothers and babies showing any danger sings.

3. For the TBAs to make daily home visits for the first 2 weeks after delivery to all new mothers and newborn babies in their area. For the trainers to check they do this.

PREPARATION

Try to arrange for the LHV from the local clinic to attend this session to meet the TBAs and explain the importance of postnatal check. Arrange for the TBAs to attend an ¦Under 2 clinic".

TEACHING MATERIALS

Picture of cracked nipples.
Kit (5 perineal pads).
Doll with cut and tied cord.
Soft and hard uterus.
Mother in postnatal period.

INTRODUCTION

Ask the TBAs about their work and families.
Ask about 2-3 home visits from the last session and revise the main point.

LESSON PLAN

| MAIN POINTS | HOW TO TEACH THIS |
|---|---|
| 1. **Why Daily Home Visits are Important after Delivery.** | . What do you do during a home visit after delivery? |
| THE PROTECTION will prevent serious sickness in the mother and the newborn baby after delivery. | . Explain that the TBAs do important work by offering emotional support, massage and |

THE PROTECTION

Remember, THE PROTECTION for mothers and babies are:

- Cleanliness.
- Good diet.
- Vaccinations
- Clinic visits.
- Referral of danger signs.

advice on good food such as halwa, eggs and chicken.

- Do you remember THE PROTECTION from our talk on home visits during pregnancy?

- Name THE PROTECTION.
- Explain that they must give these messages to the people who make the decisions in the family, ie the husband and mother-in-law.

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**2. Cleanliness.**

The TBA should advise the mother on these steps to cleanliness:

- Bathing her perineum daily.
- Changing and washing her perineal pad frequently.
- Washing her breasts daily , especially around the nipples before breast feeding.
- Keeping the cord dry and clean.
- Washing the baby's bottom and changing its clothes after it has passed stools or urine.

- Quranic quote: "God loves those who keep themselves pure and clean." Surat 11, verse 222.

- What advice would you give to the mother on keeping herself and her baby clean?
- Discuss this. Afghans give the mother and the baby a ritual bath between the third and 40th day after delivery.

- Explain the different steps of cleanliness.

- DEMONSTRATE how to keep the cord clean and dry, using a doll or a baby.

- Washing hands at the important times.

. Get the TBAs to repeat this.

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3. **Good Diet for the Mother and the Baby.**

The TBA should give this advice to the mother and her family on her diet after delivery:

- Eat enough food for 2 people, yourself and the baby you are breast feeding. This should be a mixture of good food such as lentils, meat, bread, peas, eggs, milk, potatoes, vegetables and fruit.
- Drink enough fluids for 2 people.

The TBA should give this advice to the mother on breast feeding.

- Breastfeed from birth. The first milk is very good for the baby.
- Put the baby to the breast frequently and allow it to suck for a long time.
- Do not give any other fluids to the baby. Breast milk is

. What diet do you advise for mothers after delivery?

. Discuss this. Afghans often advise hot foods like halwa and chicken soup. Some foods are though to upset the baby such as onions and spicy food.

. Explain about eating enough food for 2. Use the example of the farmer giving extra fodder to the cow to improve the milk quality and supply.

. Role-play giving advice to the mother on her diet.

. Get 2 TBAs to repeat this.

. If a breastfeeding mother is present use her instead.

. What advice do you give on breastfeeding?

. Discuss this. Afghans think that the first milk is bad and should be thrown away.

. Explain that it protects the baby against sickness.

enough for the first 4 months of life.

- If the baby is too weak to suck, express milk and give with a clean spoon.
- Never use a feeding bottle.
- Rub breast milk on the nipples to prevent them cracking.
- If the nipples are flat or inverted, massage them out gently with clean hands.

Many Afghan women think that they do not have enough milk for the baby. This is usually not true and the FHW should reassure the mother and give her the following advice to help breastfeeding:

- Eat and drink more.
- Get the baby to suck more frequently.
- Do not give up the breastfeeding.
- Try to rest more.
- If the mother is sick, get her to the clinic for treatment.

Remember that even a little breast milk is better than nothing. The mother should

- Explain the advice on breastfeeding.
- Get 2 TBA to role-play a TBA advising a new mother about breastfeeding.
- Repeat the role-play with a mother whose baby isn't sucking and her mother-in-law who wants her to use a bottle.
- Are there many mothers who think they do not have enough milk?
- What advice do you give them?
- Discuss this. Explain that many Afghan babies become thin, because their mothers think they do not have enough milk and stop breastfeeding them.

continue putting the baby to the breast even if she has not enough breast milk.

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**4. Vaccinations**

(See Topic: Vaccinations.)

Vaccinations protect against the following diseases"

- Measles.
- Whooping cough.
- Diphtheria.
- TB.
- Tetanus.
- Polio.

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**5. Clinic Visits.**

The newborn baby should be taken to the "Under 2 clinic" for vaccinations and regular weighing.

- Does you family take its newborn babies to the clinic for a regular checkup?
- Discuss this. The Afghan custom is not to take the baby outside in the first 40 days for fear of jinn ad the evil eye etc.

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**6. Referral to the Clinic if any Danger Signs Develop.**

The TBA has to make a daily home visit after delivery to check the mother and baby for any danger signs. If she finds and danger signs, she should refer them other or the baby to the clinic or tell the clinic

- Explain that you will teach about the danger signs in the mother and the baby after delivery int eh next topic.
- What must you do if you

staff so that they can visit family.

find any danger sign?

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REVISION OF MAIN POINTS

1. You have just delivered Fameeda's baby.,
   How would you look after Fameeda and her new baby?

2. What are the things that you can advise Fameeda and her family on to protect her baby and herself against serious sickness?

3. What are the steps to cleanliness you would advise Fameeda on?

(Part2 Chapter 12...46)

4. Fameeda's mother-in-law is very unhappy about you advising Fameeda to give her first m,ilk to her baby. The baby is crying a lot and the mother-in-law has told Fameeda that this is because the first milk is giving the baby abdominal pain. What would you say to Fameeda and her mother-in-law?

5. Fameeda is very worried because she thinks that her milk is not sufficient for her baby. Her mother-in-law suggests that she also uses a feeding bottle.
What would you say to Fameeda and her mother-in-law?

## HOME VISIT

The TBAs should visit the mother daily for the first 2 weeks after delivery and give them advice on the different protective messages of cleanliness, good diet, vaccinations, clinic visits and the importance of referring the mother and baby if they have any danger signs. They should inform the clinic of all new deliveries, so that the clinic staff can also visit them.

## REFERENCE PAGES

## TOPIC: HOME VISITS DURING FIRST FEW DAYS AFTER DELIVERY

### INTRODUCTION

Half the population in the refugee camps are children under the age of 15 years. A large part of the TBAs work will involve looking after these children. According to health statistics most deaths in Afghan children take place in the first two years, with over half of these deaths within the first month. The main causes of deaths are diarrhoea, tetanus, chest infections and measles. Children are most vulnerable in their first year of life. You can tell the TBAs

that the 2 most dangerous journeys children every have to take are during delivery and then during the first year of life. Cleanliness, good diet with breastfeeding from birth and introduction of foods at 4 months, vaccinations, "Under 2 clinic visits and referring danger signs early will make this journey much safer for the Afghan child. These are called THE PROTECTION and will be taught in this session. Many of the Afghan customs, such as not giving colostrum (the first milk), not feeding sick children, introducing weaning food at one year, stopping breastfeeding suddenly, make this journey much more dangerous. The TBAs can be a good friend to the children on their journeys by making regular home visits and advising the family on the topics covered in this sessions.

Afghan dais make home visits in the first few weeks following delivery to give massage, dietary advice and emotional support to new mothers. The TBAs should be encouraged to follows these traditional practices which reassure mothers and make them feel comfortable.

**TRADITIONAL PRACTICES**

When the first baby is born the family have a big celebration, especially if it is a son. Guns are fired and drums beaten to keep away the evil spirits. On the third day the child is given an official name. A mullah whispers "God is great" into the baby's ear 4 times. People bring gifts of food and clothes for the family.

**CLEANLINESS**

Traditionally the mother takes a ritual bath on the 3rd, 7th, 14th, or 40th day after the delivery. The time varies depending on local customs and whether the family have other women who can perform the household tasks. Until she takes this bath she is considered unclean and therefore is not able to prepare food.

Even if the woman is reluctant to wash all over she should be encouraged to wash round her perineum every day in case she has tears. If not kept clean, these perineal tears from the delivery can become infected. Some urban Afghan women use sanitary pads, but rural women either use a piece of cloth of nothing to soak up the

blood at the time of their periods. The TBAs should show the mothers how to tuck a length of cloth over the front and back of their shalwar and between their legs to act as a perineal pad. They should have at least 5 of these cloths and change them frequently. The mother should also keep her hands clean, especially when handling the baby. Some families do not like to bathe the baby, especially if it is a boy for fear of making him beautiful and attracting the evil eye. They put kohl on the eyes and eyebrows to keep the evil eye away.

The baby can swallow microbes from sucking a dirty nipple. The mother should clean her breasts and particularly her nipples just before breastfeeding. This will protect her from breast abscesses and the baby from diarrhoea. The baby's cord should be kept clean and dry. Nothing should be put on the cord by the family. The baby's chemise and bed clothing should be changed if they become soiled with urine or stools. Once the cord dries and drops off, the baby can have a bath.

**DIET FOR MOTHER AND BABY**

During pregnancy the woman is allowed to eat whatever she likes, but after delivery there are restrictions on her diet with a list of parhaiz (forbidden foods). The woman is though to be in a cold after delivery and needs to eat hot food to make her fertile. For the first few days a light diet is recommended such as liti, a liquid cereal made from flour and water browned in sugar. She can also drink milkless tea. Other humorally hot foods are also recommended such as eggs, nuts, mutton and halwa (flour, oil and sugar heated together) and are thought to heal internal injuries resulting from the delivery. She is told to avoid drinking too much water or eating fish, as they are thought to swell the stomach. Some Afghans forbid all milk products for the first 40 days because these are thought to swell the uterus and cause infertility. More foods are gradually introduced such as chicken soup, boiled meat, eggs, tripe and dried fruit. After 40 days women are usually back on a fully diet but for some the parhaiz on certain foods is continued for many months, especially on those foods thought to upset the baby. These foods can include all meats, rice and fish. Many Afghan women who follow these traditional practices have an inadequate diet when they are breastfeeding. This is especially

true in the winter months when there is a shortage of some foods like meat. This inadequate diet, lacking as it does iron-rich foods, explains the high incidence of anaemia in Afghan women (70% are anaemic). It may also explain why many Afghan women complain of insufficient breast milk and stop breastfeeding.

Most Afghan dais do not give any special advice for increasing breast milk although this is a very common problem. Jinn are thought to block the milk and tawiz are often prescribed to increase milk production. The TBAs should advise mothers to eat enough for 2 people, the baby and themselves. If they become pregnant again they should eat enough for 3 people. Farmers give extra fodder and fluids to improve the milk yield of cows. You could use this as an example if you think it will be acceptable to the TBAs. (For more information on good food for women see Topic: Home Visits during Pregnancy; Good Diet for Pregnant Women.)

BREASTFEEDING PRACTICES

Most Afghan children are brestfed for about 2 years. The Quran advises breastfeeding for 30 months and suggests that males are breastfed for 6 months longer than females. Bottle feeding has become more common in the refugee camps, but is very rare in rural Afghanistan. The children are given soothers to stop them crying. These are pinned to the baby's clothes and are usually filthy. They are picked up from the ground, licked by the mother and then put in the baby's mouth. Afghans think that breast milk is very good for the health and growth of the baby. They do not put the baby to the breast for the first 2-4 days because the colostrum is thought to be "bad milk" or "too old" or "too heavy" and difficult for the baby to digest. It is thought to cause diarrhoea and make the baby weak. They think the milk is old because it has remained in the breast throughout pregnancy. This contrasts with the Afghan custom of inviting guests to eat a specially prized dish made from cow's colostrum.

**Ask the FHWs why cow's colostrum is thought to be very good when they throw away human colostrum.**

Some women think that newborn babies cannot and so should not be put to the breast immediately. For the first few days before

breastfeeding is commenced the baby is fed a mixture of sugar, honey, oil and butter usually from the mother's hand. They are also given herbal mixtures or dates. These are all thought to cleanse the system and to help the baby pass its first stool. Finally after 2-4 days breastfeeding begins. Afghan women think that a pregnant mother's milk is bad and they will suddenly stop breastfeeding if they know they are pregnant, even if the child has not been fully weaned. They will also stop breastfeeding if they think their breast milk is insufficient.

## ADVICE ON BREASTFEEDING

**Breastfeeding is good for the mother for these reasons:**

- It is always available.
- It does not have to be prepared.
- It is easily transported.
- It does not cost any money.
- At birth it stops the mother's bleeding.
- It reduces her fertility for a few months so she does not become pregnant too soon.
- It helps her regain her shape more quickly.

**Breastfeeding is good for the baby because:**

- It is always available.
- There is always enough if the mother eats and drinks well.
- It is clean.
- It never goes bad.
- It is the right temperature.
- It is a balance of all the food and fluids needed by the baby for the first 4 months.
- It contains antibodies which protect the baby against diseases.
- It is the best, cheapest and cleanest soother on the market and it doesn't get lost! Instead of giving the baby a soother to stop his crying give the breast instead.

**Breastfeeding should start from birth because:**

- The baby's sucking will help to contract the uterus and stop bleeding.
- Sucking the thick yellow milk will help the white milk come through later.
- Contact with the mother is good for bonding.
- Contact with the mother keeps the baby warm.
- Breast milk is sterile and contains no microbes. If other food and drinks are given to the baby at delivery, they may be dirty.
- The colostrum has antibodies in it to help the baby fight against infections. It is like the baby's first vaccine.

**The baby should be put to the breast frequently because:**

- It stops the baby becoming hungry.
- If the baby sucks more, the breasts will make more milk.
- It helps to reduce the woman's fertility by stopping her eggs being made.

**The baby should be allowed to suck for a long time at each breast:**

- The later milk that comes through after a few minutes of sucking has many good things in it to help the baby grow healthy and strong.
- If the breast is emptied completely it will make more milk.
- If the nipple is becoming sore, avoid sucking for too long on that side.

**No fluids should be given to the baby apart from breast milk for the first 4 months:**

- Breast milk is both fluid and food to the baby for the first 4 months. The healthy baby does not require any other fluids or food at this time. If other fluids or food are given they may contain microbes which will give the baby diarrhoea. This is dangerous for the baby.
- The baby should only be given extra fluids if it is sick with diarrhoea or fever. These fluids should be boiled before being given to the baby.

**If the baby is too weak to suck, express the milk and give it with a clean spoon:**

- (See Topic: Danger Signs at Delivery; Reference Pages, Baby not sucking.)

**NEVER** use a feeding bottle:

- Bottle fed babies are more likely to get sick from diarrhoea than breastfed babies. This is because it is difficult for mothers to keep bottles and teats clean. They have to be boiled for 20 minutes before each feeding. If they are not boiled like this, the microbes left inside the bottle will make the baby sick. Microbes like to grow in warm, dirty bottles. They will grow in the milk left over from the last feed.
  **FEEDING BOTTLES CAN KILL.**
- Illiterate mothers do not know how to make up the powdered milk mixtures for each feed, because they cannot read the instructions. They will probably give the baby too little milk and too much water and the baby will starve. If they give the baby too much powder and too little water the baby may become dehydrated and start having fits from having too much salt and too little water in the body.
- If the mother has to stop breastfeeding she should use the cup and spoon method for feeding the baby. These are easy to keep clean because every part can be reached.

**Rub milk on the nipples to prevent them cracking:**

- The mother's milk is the cleanest, cheapest and best moisturizer for the nipples. A little bit of mil can be squeezed out onto the nipples and rubbed in, using clean fingers. Cracked nipples are very painful and can cause breast abscesses. They can be prevented by keeping the nipples soft.

**Massage the nipples if they are flat or inverted:**

Babies find it difficult to suck from a flat or inverted nipple.

These nipple problems are more common in women having their first baby. They can be prevented by examining women's breasts in early pregnancy and if they are found to have flat or inverted nipples, getting them to pull the nipple gently out between the two thumbs, twice a day throughout pregnancy. The nipple will lengthen with this treatment. The woman will probably not have this problem again with her next pregnancy.

**The mother is worried she does not have enough breast milk:**

Many Afghan women think they do not have enough milk for their baby, so they stop breastfeeding completely, and start the baby on food, even though it has not been fully weaned. This is one reason why many Afghan children grow well for the first 6-9 months and then start to lose weight. The TBAs are the best people to do something about this problem before it threatens the health of the baby. The TBAs should advise the women that a baby crying immediately after a breastfeed is not a sign of hunger. To reassure the woman that she has enough milk the TABs can send her to the clinic to get her baby weighed and plotted on a growth chart. If the baby is gaining weight, shown by a line on the chart going up, then the baby is getting enough milk and the mother can stop worrying and continue breastfeeding. If the baby is not gaining weight, the clinic staff will examine the baby for signs of sickness and the TBA can give the following advice.

- The mother should eat and drink more. Milk is very good.
- The mother should rest more. (This is often difficult for Afghan women to do with all their household responsibilities. The TBAs should try to keep their advice appropriate and not give this sort of advice if it is not realistic.)
- Get the baby to suck more frequently, ideally every 2 hours. If the baby sucks more the breasts will make more milk.
- Continue breastfeeding. Do not give up. The mother should continue giving what little breast milk she does have to the baby at the start of the feed and then give other milk by a spoon and cup. Even a little breast milk each day will protect the baby.
- Give the baby porridge and animal milk if the mother

cannot increase her breast milk. Porridge is easy for the baby to eat. always get the baby to suck at the breast before offering the porridge and animal milk because there is always a chance that the mother's milk will come back again.

When the mother is bottle feeding, everything she uses for feeding the baby will have to be boiled: water, animal mil, cups, spoons, glasses etc. This will take a lot of the mother's time and use a lot of fuel, making this advice difficult to follow for most Afghans. The women are busy and most households have a severe shortage of fuel. The TBAs should treat breastfeeding problems at an early stage before the milk dries up.

Some useful messages to remember on BREASTFEEDING.

- If a baby sucks more, the breasts make more milk.
- A full breast stops making milk.
- Keep breast empty. This prevents abscesses and increases milk.
- Do not give newborn babies extra feeds.
- Crying after a breast feed is not a sign of hunger.
- Some breast milk is better than none.

**"UNDER 2 CLINIC" VISITS**

All children under 2 years should go to the clinic every 1-2 months for regular weighing and vaccinations. (See Topic: Home Visits to Children in their First 2 Years.)

**REFERRAL OF DANGER SIGNS**

(These danger signs will be discussed in the Topic: Danger Signs in the First Few Days after Delivery.)

**ISLAMIC QUOTES**

- The mother kept the baby in her uterus and delivered him painfully. The breastfeeding of the children till he is fully weaned takes 30 months. Surat XLVI (Ahqaf) Verse 15.

- Breastfeeding is an obligation in Islam for those who are capable.
- The husband must provide a suitable environment to enable the mother to breastfeed her child.
- A mother who is able to breastfeed her child is forbidden from hiring a wet nurse to breastfeed her child instead. (This example could be used when talking about the dangers of bottle feeding.)
- The Prophet (PBUH) said that caring for children was a necessity and loving them brings one close to God.

**TOPIC: DANGER SIGNS IN THE FIRST FEW DAYS AFTER DELIVERY**

Time: 1 session

**OBJECTIVES**

1. For the trainer to find out what the TBAs know about the danger signs after delivery int eh mother and the baby and what they do about them.

2. For the TBAs to learn how to detect and manage the danger signs in the mother and the baby after delivery.

3. For the TBAs to make regular home visits on mothers and babies after delivery, check them for danger signs and refer them to the clinic if they find any. For the trainers to check they do this during the training course.

**PREPARATION**

Discuss with the clinic staff and members of the community the type of health problems mothers and babies have after delivery.

**TEACHING MATERIALS**

Pictures (baby with clubfoot, harelip, tetanus, infection of eyes, and of the cord).

Picture of a mother with breast abscess.
Soft and hard uterus.
Baby or doll.

INTRODUCTION.

Ask the TBAs about their work and families.
Ask about 2-3 home visits from the last session and revise the main points.

LESSON PLAN

| MAIN POINTS | HOW TO TEACH THIS |
|---|---|
| 1. Why Daily Heme Visits are Important after Delivery. | |
| THE PROTECTION prevent serious sickness in the mother and the baby after delivery.. | . Do you remember THE PROTECTION from the last session? |
| THE PROTECTION | . Use your fingers to name them. |
| Remember, you can help prevent sickness by: | . Remind the TBAs that they are like tawiz or a helping hand. |
| . Cleanliness.<br>. Good diet.<br>. Vaccinations.<br>. Clinic visits.<br>. Referral of danger signs. | . Explain that you will talk about the danger signs in the mother and the baby in this session. |
| 2. The Danger Signs in the Mother after Delivery. | |

The time just after delivery can be a dangerous time, with many Afghan women and babies dying. The TBAs can help to prevent deaths in their community by learning how to detect and manage these danger signs.

The DANGER SIGNS in the MOTHER after delivery are:

- Fever.
- Breast red and painful.
- Uterus large and painful.
- Bright red vaginal bleeding.
- Bad smelling discharge.

**Fever.**
Fever can be a danger sign, warning of a pelvic infection, caused by microbes getting inside the woman at a dirty delivery. Pelvic infection can kill the woman or cause infertility. The other danger sign of pelvic infection in smelly discharge.

**Breast red and painful.**
This is a danger sign of pus in the breast, caused by microbes going through a cracked nipple. This needs special medicine. The mother should continue breastfeeding.

- Explain that in this session you will teach the TBAs how to use the danger signs to prevent some mothers dying or getting sick.

- What sort of health problems for mothers have after delivery?
- Discuss this. In Afghan mothers, bleeding and pelvic infections are common, causing sickness and sometimes death.

- What do you do about women with these health problems?
- Discuss this. Afghans usually know that fever is a danger sign, but they often think that bleeding is good sign.

- Demonstrate how to examine a mother for the danger signs, using the HEAD-TO-TOE EXAMINATION.

  - Feel forehead for fever.
  - Look at the breast for redness and swelling.
  - Feel the lower abdomen for the size and hardness of the uterus. Put hard and soft uterus under your dress and let

**A large and soft uterus.**
The uterus should have contracted to a hard ball, with afterpains. If the uterus is still large and soft, it means there is a large wound inside which will continue bleeding.

**Bright red vaginal bleeding.**
This means that there is still a wound inside. Heavy bleeding at any time or discharge which is still red after 4 days are danger signs.

The TBA should get the woman to put on a clean perineal pad when she first arrives so that she can check the amount of bleeding after some time.

**Bad smelling discharge.**
This is a danger sign of a pelvic infection.

The TBAs should refer all women showing any of these danger signs to the clinic. The should also massage the uterus if it is large or if there is bright red bleeding and get the baby to suck at the breast.

Remember, refer **WOMEN** with **DANGER SIGNS** to the clinic immediately

all the TBAs feel the difference.

- Look at the perineal pad for bright, red bleeding. Ask how often the woman has to change her pad.
- Small the perineal pad for bad smelling discharge.

. Get 2 TBAs to repeat this.

. Role-play using perineal pads and soft and hard uterus.

. Get all the TBAs to repeat this in pairs.

. Explain that if the TBAs find a large soft uterus or bright red bleeding they should rub the uterus to make it go hard like a ball. The TBAs should keep doing this, or teach another woman to do it, so that the uterus remains hard. They should also get the baby to suck at the breast.

. Demonstrate how to massage the uterus, starting with the large, soft uterus under a dress and then after the massage substituting it with a hard ball.

. Also demonstrate putting the baby to the breast.

- Get 2 Tbas to repeat this.
- Get all the TBAs to repeat this in pairs.

- Explain that mothers showing any of the danger signs must be referred to the clinic.

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### 3. The Danger Signs in the Baby after Delivery.

The TBA should also look for danger signs in the baby and refer the child if any are present.

The **DANGER SIGNS** in the **NEWBORN** are:

- Baby very small.
- Baby looks strange.
- Fever.
- Red eyes.
- Baby not sucking.
- Cord red or covered with pus.
- The baby looks yellow.

- What sort of health problems do babies have after delivery?
- Show pictures of abnormalities, eye and cord infections, tetanus etc.

- What would you do with a baby who had these problems?

- Explain that you are going to teach them about the danger signs in new born babies.

- Show the TBAs how to examine a baby for the danger signs, using the HEAD-TO-TOE EXAMINATION.

**Baby very small.**
Small babies are weak and get cold and hungry quickly. They should be fed often, kept warm, and referred to the clinic for

- Look to see if the baby is very small.
- Look over the body for abnormalities

regular weighing.

**Baby looks strange.**
Some babies are born with abnormalities like a clubfoot, harelip, cataracts etc. Some of these can be improved in special centres, so all such babies must be checked by the clinic staff.

**Fever.**
Fever could be a sign of a serious illness and should be referred to the clinic.

**Red eyes.**
Some newborn babies get eye infections with redness, swelling and puss. If these are not treated quickly, the babies may become blind.

**Baby not sucking.**
This means that the baby is too weak because it is very small or sick. The mother should express her milk, and give it with a clean spoon. The baby should be referred to the clinic for regular weighing. It could also be an early sign of tetanus, in which case the baby will later go stiff.

**Cord red or covered with pus.**
This is a sign that microbes have got into the cord because THE CLEANS were not followed at the delivery. The cord should be cleaned and the baby taken

like cataract, harelip, clubfoot.

- Feet the forehead for fever.
- Look at the eyes to see if they are red.
- Look at the mouth. Ask the mother to put the baby to the breast. Is the baby sucking?
- Look at the cord for redness and pus.
- Look at the skin of the baby to see if it is yellow.

- Get 2 TBAs to repeat this examination, using a real baby or doll.
- Get all the TBAs to repeat this in pairs.
- Choose 6 pairs of TBAs and give them each a different danger sign to find at the examination. One should play the mother and the other the TBA.
- Explain that the TGBAs must refer babies with any of these danger signs to the clinic.
- Demonstrate how to clean the eyes using a tiny pinch of salt in a glass of clean water and using a new area of cloth with



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to the clinic quickly for medicine. If action in not taken, the baby will become very sick.

**Baby looks yellow.**
About half of all babies get mild jaundice (yellowness in face and eyes) between the 2nd and the 5th day of life. This is normal jaundice and needs no treatment. The danger sings of jaundice are:

- It start too early (in the first 24 hours after birth).
- The baby becomes yellow all over.
- It lasts too long (more than 2 weeks).
- The baby shows other signs, such as not sucking or becoming drowsy, abnormally stiff or floppy.

A jaundiced baby needs a lot of fluids and light.

If the jaundice does not get better after the fifth day, you must refer the baby to the clinic.

each wipe.

- Get the TBAs to repeat this in pairs.
- Demonstrate how to express milk.
- Explain how the TBAs should look for jaundice.
- Look for jaundice on the baby's forehead, chest, abdomen, knees and feet.
- Explain that if the baby is drowsy, sucking weakly, or is abnormally stiff or floppy, these are all danger signs in jaundice and the baby must be referred to the clinic.

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**REVISION OF MAIN POINTS**

1. You make a home visit to Shahnaz After she has delivered her baby.
   What projections would you advice her family about?

2. Show me how you would examine Shahnaz for the danger signs after delivery.

3. What would you do if Shahnaz's uterus was large and soft?

4. Show me what examination you would do on Shahnaz's baby to look for danger signs.

5. Shahnaz's baby has a red cord with pus coming out of it.
   What would you do for her baby?

**HOME VISIT**

The TBAs should visit the mothers daily for the first 2 weeks after delivery and look for danger signs in the mother and the baby. They should refer al mothers and babies who develop danger signs to the clinic. They should also inform the clinic staff of all new deliveries so that they can visit and check for danger signs too.

REFERENCE PAGES

## TOPIC: DANGER SIGNS IN THE FIRST FEW DAYS AFTER DELIVERY

### INTRODUCTION

The mother and the baby are still at risk of health problems in the weeks following delivery. The TBA should visit daily for the first 2 weeks to talk about the importance of cleanliness, good diet, vaccinations, and clinic visits, and she should check for the following danger signs in the mother and in the baby.

### DANGER SIGNS IN THE MOTHER AFTER DELIVERY

Fever after delivery.
Fever starting a few days after delivery is a danger sign because it may indicate a pelvic infection which, if not treated quickly enough, can kill the mother. the woman needs to be examined at the clinic if her fever does not god own after 1 day of fluids, soft food and tepid sponging.

**Breast red and painful.**
Breast problems are common in the first few months after delivery. The TBAs should be able to decide what the problem is (breast abscess, sore nipples, engorged breasts or mother's anxiety), know how to manage it, and always encourage the mother to continue breastfeeding even though this may hurt.

When a part of the breast becomes hot, red, swollen and very painful, breast abscess may be developing. The lymph nodes in the armpits may also be painful and swollen and the woman may have a

fever. If the abscess is not treated early with special tablets from the clinic, the swelling will get larger and then burst allowing the pus out. Once the pus has all drained out, the breast will heal up gain. This is similar to abscesses in other parts of the body. When the abscess is just about ready to burst the area will feel soft as if full of fluid. At this stage cutting the skin over the soft area will help release the pus and speed healing. Many traditional Afghan healers know how to perform this minor operation.

Breast abscesses are caused either by microbes entering the breast through a sore, cracked nipple, or by a milk blockage from engorged breasts. They are most common during the first few weeks of breastfeeding. These microbes may come from the baby's nose or eyes. Abscesses can be prevented by keeping the breasts and nipples clean, rubbing breast milk or oil into the nipples to keep them soft and emptying the breasts completely. Women with short or inverted nipples should massage them out several times a day, starting in pregnancy. This will make it easier for the baby to suck and the mother will be less likely to get sore nipples. Sore nipples develop when the baby sucks on the nipple rather than taking the whole area around the nipple into the mouth. This is helped by holding the baby closer. If one nipple is painful and red the baby can suck for a shorter time on that side.

The treatment of a breast abscess is to continue expressing milk from the infected breast preferably by getting the baby to suck, or if this is too painful, by hand. The milk should not be given to the baby f it is mixed with pus or blood. Warm compresses can be applied over the swollen area to help soften the abscess and speed up pus drainage and healing. The woman should be referred to the clinic for special medicine.

**Uterus is large and soft after delivery.**
Just after the delivery, the uterus is at the level of the umbilicus. Within the first week it should have reduced its size by half. Two weeks after the delivery it should no longer be felt in the lower abdomen. A full bladder pushes the uterus up. The size of the uterus should always be assessed after the woman has passed urine. In late pregnancy the uterus has many large blood vessels, and these will continue bleeding if the uterus does not contract

down and go hard after delivery. As the uterus muscles contract, they pinch the blood vessels and close them off. In a uterus that is large and soft, this closing of the blood vessels has not taken place, and they will continue to bleed. The large and softer the uterus is, the more the blood vessels will bleed. The uterus is very sensitive to being touched and will contract down and go hard if rubbed. It may then stay small and hard like a ball. Sometimes it will relax and become large and soft again, especially if a part of the placenta has been left inside. This is dangerous and can lead to heavy bleeding in the first 2 weeks after delivery. When the TBAs find a large soft uterus at their home visit they should get the woman to empty her bladder and rub up a contraction. If the uterus needs repeated rubbing to remain hard or there are signs of bright red blood loss, the TBA must urgently refer the woman to the clinic. The clinic staff will give the woman an Ergometrine injection and refer her to the hospital if the bleeding continues. She may need an operation to empty her uterus and stop the bleeding.

**Bright red vaginal bleeding after delivery.**
Afghans think that a certain amount of bleeding after delivery is good for the mother because it rids her body of "bad blood" which is taught to swell the abdomen and give headaches. They will not therefore consider bleeding a danger sign. They may give humorally hot foods like eggs and herbal mixtures to increase bleeding. They als have herbs for reducing bleeding. Health statistics show that about 1 in 3 maternal deaths are due to heavy bleeding.

All women have a blood coloured discharge for the first 2-3 weeks after delivery. This is quite normal. In the first 4 days the discharge is red in colour and after 5 days it becomes darker brown. By 3 weeks the discharge should have returned to its normal yellow/white colour. If the discharge continues to be bright red after the first 4 days or if there is a heavy bleeding at any time, this is a danger sign indicating the possibility of retained pieces of the placenta within the uterus. These pieces will prevent the uterus contracting and could lead to heavy bleeding at a later time. On her arrival at the home visit the TBA should replace the used perineal pad with a clean pad. She can then check this clean pad after a few minutes for the colour and the amount of blood loss. If the TBAs find women with bright red discharge 5 days or

more after the delivery, they should send them to the clinic. If the TBAs find women with heavy bleeding at any time after delivery they should refer them to the clinic, get the baby to suck at the breast and start rubbing the uterus. This should be continued on the way to the clinic.

**A bad smelling discharge after delivery.**
A bad smelling discharge from the vagina indicates an infection in the uterus. There may also be some clots in the discharge and after the second day, this is a sign of abnormality, Clots imply that the bad smelling discharge is due to detained pieces of the placenta in the uterus. Bad smelling discharge, fever, abdominal and back pain are signs of a pelvic infection, an illness which is very dangerous. If it is not treated quickly with special tablets, it may kill the mother or cause chronic illness and infertility. Pelvic infections usually follow on from unclean delivery practices where microbes have been introduced into the birth canal. Unclean practices include putting dirty fingers or herbal mixtures in the birth canal and not preparing a clean delivery area. The TBAs can prevent most pelvic infections by practicing THE CLEANS at delivery and not putting anything in the birth canal. Pelvic infections may also follow on from an abortion or a normal delivery with an incomplete placenta. The infection results from tissue in the uterus "going bad".

The TBA should examine the perineal pad to see if the woman has a had smelling discharge. on her arrival at the home visit, the TBA should replace the used perineal pad with a clean pad and then examine it at the end of her visit. By doing this she can check that any bad smell is caused by a discharge rather than the poor hygiene of the mother.

**THE DANGER SIGNS IN THE BABY AFTER DELIVERY**

The TBAs should check the baby daily for the danger signs after delivery. If the TBA is not able to visit daily she should teach another woman in the house the danger signs and the family can then send for her if any develop.

**Baby very small.**
The baby should be kept warm and fed frequently.

**(See Topic: Danger Signs at Delivery; Reference Pages.)**

**Baby looks strange.**
Some babies are born with abnormalities like a clubfoot, split upper lip, cross eyes, cataracts, extra fingers and toes, no anus etc. The clinic staff should check all newborn babies for these abnormal signs. They will then refer some cases on to special centres for treatment.

The TBA should examine the baby's feet to see whether they can bend normally. If the TBA cannot make the ankles bend outwards, the baby may have a clubfoot. The clinic staff arrange for the baby to be seen at a physiotherapy centre for strapping of the foot and special exercises. The sooner this treatment is started after delivery, the better the result will be. **(See Additional Topic: Helping Disabled People.)**

If the baby's lip or top of mouth are divided, then an operation in the first or second year of life can correct this. In the meantime the baby may have difficulty breastfeeding and should very carefully fed with a spoon.

To prevent babies being born with abnormalities women can do the following:

- Not marry a cousin or close relative. (Quranic quote).
- Eat a good diet during pregnancy.
- Avoid medicines during pregnancy. Only take those prescribed by clinic staff.
- Keep away from sick children especially those with a rash.
- Avoid pregnancy over the age of 40 years.

**Fever.**
Fever could be a sign of a serious illness. The TBA should refer any baby with fever to the clinic.

**Red eyes.**
Some newborn babies get a very serious eye infection from their mothers which can lead to blindness if not treated quickly. This is caused by poor hygiene in the mother and baby picking up microbes

in the birth canal during the delivery. The eyes will be red, discharging pus and very swollen. The baby must be referred urgently to the clinic for treatment. The TBA can show the mother how to clean the pus out of the eye. This is very important because antibiotic eye cream will not work unless the eye is cleaned first. Show the TBAs how to do this by taking a small piece of cloth, soaking it in water, wiping the eye from the middle to the outside, then throwing the cloth away and starting again with a new one. Hands should be washed with soap and water before and after cleaning the eye. The mother should do this 4 times a day. Eye infections can spread very easily, so the baby should be kept away from other children.

**Baby not sucking.**

Normally the breasts make as much milk as the baby needs. If the baby is strong and sucks well the breasts will empty and then start to make more milk again. If the baby is not sucking well the breasts will not empty, and they will make less milk next time. This means that when a baby is sick and stops sucking, after a few days the mother's breasts stop making milk. When the baby gets better again and starts sucking there will not be enough milk. In order to keep the milk production going when the baby is not sucking, the mother must milk her breasts with clean hands to empty them. She can then give this milk to the baby with a spoon. The mother can also milk coming swollen and painful (engorged).

The baby may also not suck because it is small, weak, or sick. Not sucking can be the first sign of tetanus; spasms and arching of the back come a few days later. All babies who do not suck should be seen at the clinic to be examined, weighted and plotted on a growth chart. The FHWs must encourage the women to milk their breasts with clean hands until the baby starts sucking again. This is very important if the milk is not to dry up completely. The TBA should show women how to milk their breasts following these steps:

- Wash hands with soap and water.
- Wash the breast especially round the nipple.
- Take the breast in both hands and starting away from the nipple, squeeze hands forward towards the nipple. Finally squeeze over the nipple.
- Repeat this 3-4 times and milk will start to come out.

- Repeat this many times until the breast is empty. This may take about 10 minutes for each breast. The breast is made of segments like an orange and each segment has to be emptied which is why it takes a long time. It is important to gently press over hard areas and empty them.
- A woman should milk her breasts about 5 times a day until the baby starts to suck again. **FULL BREASTS STOP MAKING MILK. ALWAYS EMPTY BREASTS COMPLETELY.**
- It is best to give the milk to the baby straight away when it is still fresh. If the mother wants to keep the milk for a few hours, she should put it in a sterile container and boil the milk before giving it to the baby.

**Cord red or discharging pus.**

The cord can easily become infected during delivery and in the few days after the delivery. There will be signs of infection such as redness, swelling and discharge of pus. This can be very dangerous and the baby should be sent to the clinic for special medicines. The cord usually dries up and then drops off after about a week. It is best to leave the cord open to the air and to keep it clean and dry. **DO NOT PUT ANYTHING ON THE CORD.**

**TOPIC: DIARRHOEA**

Time: 2 sessions

**OBJECTIVES**

1. For the trainer to find out what the TBAs know and do about diarrhoea.

2. For the TBAs learn how to treat diarrhoea at home, how to prepare and give ORS and to learn how to detect the danger signs for referring a child to the MCU.

3. For the TBAs to visit their community and mark a litre line on a metal container in each home. For the TBAs to visit children with diarrhoea and teach parents how to treat diarrhoea at home and when to go to the clinic.

**PREPARATION**

Enquire whether an Oral Rehydration Therapy (ORT) corner has been established in the local MCU. If one has been established arrange with the MCH staff for the TBA to visit the ORT corner.

**TEACHING MATERIALS**

Posters of the prime messages for the management of diarrhoea at home.
ORT dolls with fontanelle, enough for each pair TBA
ORS packets.
1 litre jug for each TBA.
Cooking pan with lid and stirring spoon to mix ORS.
Cup and spoon to give ORS.
Kettle to practice marking the 1 litre line.
nail to scratch 1 litre line on the kettle.
Transparent pot with hole to demonstrate water loss.

A display of kidigiri, bananas, yoghurt.

**INTRODUCTION**

Ask the TBAs about their work and families.
Ask about 2-3 home visits from the last sessions and revise the main points.

## LESSON PLAN

| MAIN POINTS | HOW TO TEACH THIS |
|---|---|
| **1. Introduction to Diarrhoea.** | |
| A child with diarrhoea has more water in the stool than normal. Even one watery stool is diarrhoea and should be treated. Diarrhoea can be dangerous if not treated early with the correct management at home. It is the main cause of death among Afghan children. The main danger of diarrhoea is dehydration from loss of too much water in the diarrhoea stool. | . Is there a problem with diarrhoea in your community? Who gets it? Who dies from it?<br>. Explain that diarrhoea is the main cause of death among Afghan children. |
| The early signs of dehydration are:<br>- Thirst.<br>- irritability. | . How do you decide that a child has diarrhoea?<br>. Explain that in diarrhoea the stools are more watery.<br>. Demonstrate how water is lost in diarrhoea using a transparent pot with a hole.<br>. Explain that sunken eyes and fontanelle are sings of the water level dropping.<br>. Demonstrate how fluids have to be replaced at the top.<br>. Explain that the early |

signs of fluid loss are thirst and irritability.

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**2. Home Management of Diarrhoea.**

Most diarrhoea episodes can be treated at home successfully if parents follow the prime messages of home management. The prime messages are:

- Give the child at least one extra cup of fluid after each watery stool to replace water loss.
- Continue feeding the child with breast milk and soft foods.
- Do not give medicines for diarrhoea; they may be dangerous and should only be prescribed by the clinic staff.
- Take the child to the clinic if the child has any one of the danger sings.
- Prevent the child getting a further episode of diarrhoea.

The management of diarrhoea follows the same steps as for any other sickness.

- What are the steps for managing any illness?
- Explain the different steps.

- Explain the TBA must first assess a child with diarrhoea by asking.

  - What fluids have you given your child?
  - What food have you given your child?
  - What medicines have you given you child?

- Role-play a TBA asking these questions.
- Get 2 TBAs to repeat this.

The management of **DIARRHOEA.**

- Give more fluid.
- Continue food.
- If danger signs develop take the child to the clinic.

Modern medicines are not usually needed and should only be given by the clinic staff.

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**3. Give more Fluids during Diarrhoea.**

Give the child at least one extra cup of fluid after each watery stool to prevent dehydration.

- Home fluids such as breast milk, rice water, weak tea, plain water, lassi and soup are all good for diarrhoea. ORS is very good because it restores the appetite and gives energy. Very sugary fluids should not be given.
- Given these extra fluids as soon as diarrhoea starts.
- Give one cup after each watery stool, using a spoon.
- Give more fluids if

- What fluids are good for diarrhoea?
- Explain that traditional home made fluids such as weak teas, rice water are very good.

- Demonstrate giving a cup of fluid after each watery stool using a doll, cup and spoon.
- Get a TBA to repeat this.

- Demonstrate what to do if a child vomits.
- Get a TBA to repeat this.

the child wants more.

- Continue giving these fluids until diarrhoea stops.
- These extra fluids will help to prevent dangerous dehydration.
- If the child vomits wait 10 minutes, then give fluids more slowly, a teaspoon every 2-3 minutes.

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**4. How to Prepare ORS.**

If a child has received ORS from the MCH, it is important to make it correctly.

- pour clean water into the ORS jug up to the litre line (if a litre jug is not available use 4 pao-sized (250ml) glasses instead).
- Then pour this litre of water into a metal container such as a kettle or jug. Scratch a line with a nail on the inside of this container at the level of the water.
- Show parents the

. Have you heard of ORS?

. Explain that ORS comes in packets from the clinic and restores the appetite and energy.,

. Do you know how to make up this packet of ORS

. Demonstrate how to prepare ORS using an ORS jug and a kettle from the house.

. Get a TBA to repeat this using the ORS jug from her kit.

. Role-play a TBA advising a mother what fluids to give and how to prepare ORS.

. Get TBAs to repeat this.

mark.

- Empty one whole packet of ORS into the water in the marked container and stir with a clean spoon.
- Cover the container.
- A fresh amount of ORS should be prepared after 24 hours.

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**5. Continue Foods during and after Diarrhoea.**

The other danger of diarrhoea is that a child becomes very thin. Thin children with diarrhoea are more likely to get very sick or even die. To prevent this, food should be continued during diarrhoea and increased after diarrhoea to restore energy.

For infants under 4 months.

- More frequent breastfeeding.

For children over 4 months:

- Kidgiri, rice, yoghurt, banana, potato and breastfeeding.
- Food should be offered in smaller helpings more frequently, at least

. What foods are good for diarrhoea?

. Discuss this. Traditional foods given during sickness such as kidgiri are very good.

. Explain that foods should be given to restore energy.

. Tawiz is in the Quran but parhaiz is not.

. Show examples of these foods.

. Explain how to feed an infant under 4 months.

. Get 2 TBAs to role-play a TBA advising a mother of a 3 month old baby.

. Explain how to feed a child over 4 months.

6 times a day.

- Foods should be mashed to make them soft.
- A teaspoon of oil should be added to each serving.
- Food should be freshly prepared or thoroughly reheated.
- An extra meal should be given each day for 2 weeks after diarrhoea has stopped.

. Get 2 TBAs to role-play a TBA advising a mother-in-law who wants to stop giving good to her 2 year old grandson because she thinks it will make the diarrhoea worse.

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**6. Medicines of Diarrhoea should only be Prescribed by the Clinic.**

All medicines from the bazaar for stopping diarrhoea are useless. They are dangerous because they keep the microbes inside. They take parents attention away from the real treatment: fluids and food.

Only medicines prescribed by the clinic staff should be given. Most diarrhoea episodes self-limiting and will settle after 4-5 days without any special treatment apart from ORS.

. What remedies are given to a child with diarrhoea at home?

. Explain that herbal remedies are good as long as lots of water is mixed with them.

. Explain that modern medicines from the bazaar to stop diarrhoea are dangerous.

. Use Imodium as an example.

. Role-pla TBA advising a mother who wants medicines to stop

diarrhoea.

- Get 2 TBA to repeat this.

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**7. The Danger Signs of Diarrhoea.**

If a child with diarrhoea develops any one of the DANGER SIGNS, the TAB should advise the parents to take the child to the MCU, giving fluids on the way.

The DANGER SIGNS in children with DIARRHOEA are:

- Great thirst.
- Fever.
- Eating or drinking poorly.
- Blood in the stools.
- Very frequent stools.

- What are the danger signs of diarrhoea?
- Discuss this. Afghans recognise the sunken fontanelle as a sign and try to push it up.
- Explain the danger signs using the HEAD-TO-TOE EXAMINATION.
- Explain that the TBAs should assess for danger signs by asking the parents these questions:
  - Does your child have a fever?
  - is your child very thirsty?
  - Is your child eating or drinking poorly?
  - Is your child vomiting frequently?
  - Does your child have blood in the stools?
  - Is your child passing very frequent stools?
- Explain that if the TBAs find any one of these danger signs they should refer the child to the clinic.
- Role-play a TBA assessing

a child for danger signs.

- Get 2 TBAs to repeat this for a child with fever.

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**8. How to Prevent a Further Episode of Diarrhoea.**

Diarrhoea is caused by children putting dirty things in their mouths such as:

- Dirty water.
- Dirty food.
- Dirty fingers.
- Feeding bottles, soothers.

Episodes of diarrhoea can be greatly reduced by:

- Breastfeeding a child exclusively (no other fluids or food) until 4 months.
- Never using a feeding bottle. Using a cup and spoon instead.
- Washing hands with soap and water before preparing food or feeding children.,

- What causes diarrhoea?
- Discuss this. Afghans believe in many causes of diarrhoea including hot foods, hot weather and the child not being able to digest food as well as adults.
- Explain that diarrhoea is caused by dirty things going into the mouth.
- What sort of dirty things go into the mouth?
- Explain that parents can reduce the number of diarrhoea episodes by breastfeeding exclusively, not using feeding bottles and by washing their hands with soap.
- Role-play a TBA giving advice to a mother of a 2 month old baby with diarrhoea, who is being breastfed and bottle fed.
- Get TBAs to repeat this.

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**9. Role of the FHW in the Home Treatment of**

**Diarrhoea.**

The TBAs should visit children with diarrhoea in the community and do the following.

- Teach parents the prime message.
- Encourage mothers to breastfeed more frequently.
- Encourage parents to give soft foods such as kidgiri, yoghurt, and banana to children over 4 months.
- Show parents how to give a cup of fluid after each watery stool.
- If the parents have been given ORS at the MCU, mark a litre line on a metal container in their house, show them how to prepare ORS nd then supervise them giving it.
- Assess diarrhoea cases for the danger signs using the HEAD-TO-TOE EXAMINATION.
- If any danger sign is present, advise parents to take the child to the clinic, giving fluids on the

. Role-play what a TBA should do during a home visit to a child with diarrhoea.

. Get 2 TBAs to repeat the role-play. The child has no danger signs and the parents have been given ORS at MCU.

. Get 2 TBAs to role-play a visit to a child with blood in the stools.

**PLEASE NOTE:** Sugar Salt Solution is no longer advised for diarrhoea home treatment. Surveys have shown that it is difficult for Afghans to make and is poorly accepted by the community.

way.

- If no danger signs are present, do a home visit the next morning. If the child is not getting better refer the child to the MCU.
- Ask the parents to repeat the prime messages and ORS preparation before leaving to check they understand.

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## REVISION OF MAIN POINTS

1. What is diarrhoea?

2. What are the dangers of diarrhoea?

3. What are the early signs of dehydration?

4. Show me how you would teach somebody to prepare ORS using your kit.

5. Show me how you would assess a child with diarrhoea.

6. What are the prime messages for diarrhoea?

7. You are called to see Gul Bibi who is very worried because her 8 month old baby has diarrhoea.
   What would you do? Show me using your kit.

8. You are called to see Ahmed who is 3 years old and has diarrhoea with frequent vomiting.

## HOME VISIT

Ask the TBAs to visit every household and scratch a one litre line on a metal container, such as a kettle, using their plastic ORS jug. Ask the TBAs to let women in their community know that they would be happy to visit them if their children get diarrhoea. They should teach a woman in each house to treat diarrhoea at home, to prepare ORS and to take a child to the MCU if any danger signs develop.

Ask the TBAs to tell Shaheeda's story to their families and during any home visit they make.

## REFERENCE PAGES

### TOPIC: DIARRHOEA

### INTRODUCTION

A person has diarrhoea when the stools contain more water than normal. The stools become loose and watery. Even one watery stool is diarrhoea. Diarrhoea stools may also contain blood in which case the diarrhoea is called dysentery. Babies who are breasted often have stools which are soft. This is not diarrhoea. Mothers know when their children have diarrhoea. Diarrhoea is very common in Afghan refugee children, especially in those between 6 months and 2 years. A recent UNHCR survey showed that Afghan children in NWFP have an average of diarrhoea a year and in Baluchistan an average of 12 episodes of diarrhoea a year. Almost half of the deaths in Afghan refugee children are related to diarrhoea and most of these are in infants under 1 year. The 2 main dangers of diarrhoea are dehydration and malnutrition.

### TRADITIONAL PRACTICES IN THE TREATMENT OF DIARRHOEA

Diarrhoea is very common in Afghan children. The Afghans believe that there are many different causes of diarrhoea. Diarrhoea is often thought to be caused by an excess of heat in the body from eating hot foods for going out in hot weather. Failure of the stomach to digest food properly, either because inappropriate foods have been given or because of underlying weakness, seem to be considered another common cause of diarrhoea. It is also thought that children get diarrhoea because they cannot digest food as well as adults. Some believe the stomach is in the centre of the body and connected to other parts of the body by veins. They also think that the fontanelle in infants is attached to the hard palate at the top of the mouth.

The following are some diarrhoea types recognised by Afghan refugees: heat diarrhoea, constipation diarrhoea, indigestion diarrhoea, teething diarrhoea, fallen stomach vein diarrhoea, hot wind diarrhoea, cough and cold diarrhoea, bloody diarrhoea, spirit possession diarrhoea, evil eye diarrhoea, worm diarrhoea, earache diarrhoea, measles diarrhoea, sunken fontanelle diarrhoea. All these different types of diarrhoea have different names and different treatments.

The commonest treatments of these different types of diarrhoea are:

- Traditional medicines and home remedies.
- Modern medicines and home remedies.
- Religious objects or prayers.
- Religious objects or prayers.
- Physical actions or manipulations (such as keeping the child out of the sun, abdominal massage etc).

As diarrhoea is commonly considered to be a hot condition, only foods, drinks and medicines considered to be cold are used as treatments. These are thought to act by cooling and cleaning the stomach and improving thirst and weakness. Bananas, oranges, lemons, rice water, yoghurt and herbal mixtures are considered are considered cold substances. Fats, eggs, chicken and dal are considered to be hot and not suitable for diarrhoea. Pregnancy is considered a hot condition and the breast milk of a pregnant woman is thought to sour because of this heat and be unfit for babies. It is also thought that a lactating mother may give her child diarrhoea by eating certain foods.

Traditional dais treat sunken fontanelle (talo) diarrhoea by pushing up the hard palate and applying sticky substances to the fontanelle.

The religious remedies include visiting the tombs of pirs (holy men), tawiz and dam (blowing words from the Quran).

A UNHCR survey has shown that half of children with diarrhoea at home receive increased fluids and increased or unchanged food intake. One in ten are given traditional home fluids. The most popular of these home fluids are lugusticum, aniseed, gutti, barthang and gur. These herbal mixtures are traditionally given

like syrups in small amounts 1-2 teaspoons 2-3 times a day. The therapeutic property is thought to come from the cooling effect of the herbs rather than any fluid replacement. This is because thirst is believed to result from excess heat rather than fluid loss. Three in four children are given medicines from the bazaar to stop diarrhoea. These are mainly syrups. In nearly all children breastfeeding is continued. Seriously ill children are usually taken initially to a private practitioner for treatment rather than to the MCU. Parents usually start treatment after the diarrhoea has lasted 1-2 days, if there are frequent stools and vomiting or if the child is weak or thirsty. Thirst is a recognised cause for offering a child more to drink. However in a small child not able to articulate its desire for water, crying and irritability are not recognised as signs of thirst. Mothers must be taught to recognise irritability as an early sign of thirst so that they will offer more fluids to these children.

## GIVE MORE FLUIDS DURING DIARRHOEA

Dehydration is caused by the body losing water in the stools. A child with vomiting, fever or frequent watery stools will become dehydrated very quickly. Adults do not lose water as quickly as children and are therefore less likely to become dehydrated. The human body is like a plant and requires enough water to make it function properly. As Surat X11 (Anbiyaa) verse 30 says: "We made from water every living thing." If the water lost in the diarrhoea stools in not replaced quickly by giving fluids, a person becomes very sick from dehydration and may even die, just like a plant dying from lack of a drink. You can use transparent container with a hole in the bottom to show how water in the body is lost in the stools. Show how to stop the level of water dropping too fast by pouring water in at the top. Explain that this is like giving a child home fluids and ORS to prevent the child drying up. A person with diarrhoea should be treated with these extra fluids, an extra cup after each stool, early, as soon as diarrhoea starts. Good fluids for treating diarrhoea at home include weak teas, rice water, plain water, soups, lassi, breast milk and ORS.

ORS is especially good as a fluid for diarrhoea because it restores appetite and energy by increasing the absorption of salt and water into the body. ORS is a cheap, highly effective therapy and will

prevent the majority of deaths from dehydration if used early enough in diarrhoea and in sufficient amounts. ORS packets contain the correct scientific balance of salts and sugar to treat dehydration. ORS is available free from the MCU. Most Afghans have heard of ORS but only one in five know how to prepare it correctly. The most common mistake made in preparation is adding the wrong volume of water. Another common mistake is not using the whole packet of ORS. Another mistake is boiling the water used for making ORS. The time taken boiling the water and allowing it to cool delays to start of giving ORS. The cleanest water available should be used. Reliable water sources are tap water, tube wells and cement lined wells with a cover and a pump. ORS will not stop the diarrhoea, but will help to prevent and treat dehydration. It is therefore life saving. If the child vomits after taking fluids this is often because the child is very thirsty and has been taking the fluids too quickly. Parents will be more willing to use ORS if they understand that it works, not by stopping diarrhoea, but by replacing fluid loss. The TBA should tell the parents about the healing properties of ORS in restoring appetite, improving energy and decreasing weakness. They should advise parents to look at the child and not at the stools. Parents should not worry about the child passing watery stools, if he is also alert and taking fluids well.

The UNHCR survey of both NWFP and Baluchistan showed that very few Afghgans understood how to prepare Salt and Sugar Solution (SSS) correctly and that they rarely used it for diarrhoea home treatment. It has been decided to stop promoting SSS in the Afghan refugee health programme.

CONTINUE FOOD DURING AND AFTER DIARRHOEA

Diarrhoea lasts longer and is more severe in children with malnutrition. Diarrhoea can also cause malnutrition because:

- Nutrients are lost from the body in the diarrhoea stools.
- A person with diarrhoea often has a poor appetite and will therefore not be offered food.
- The traditional custom, parhaiz, is to withhold foods from a person during diarrhoea and for some days after diarrhoea has stopped.

The vicious circle of diarrhoea leading to malnutrition leading to diarrhoea has to be broken. To prevent diarrhoea leading to malnutrition, soft foods should be given to children with diarrhoea as soon as they can eat. Good foods for diarrhoea include breast milk, kidgiri (rice and lentils), yoghurt, banana and mashed potatoes. A teaspoon of oil should be added to each serving to give extra energy. Giving food during diarrhoea increases the absorption of water and gives the child energy and strength to fight the illness. Food also reduces the number of days that the diarrhoea lasts and therefore acts as an anti diarrhoeal. Food stimulates enzymes in the intestinal wall which are essential to the process of digestion. If food is not given, these important enzymes stop working. An extra meal of oil enriched food should be given each day for 2 weeks after diarrhoea has stopped. This extra meal provides energy and protein for the "catch up" growth which takes place after diarrhoea has stopped.

**MEDICINES FOR DIARRHOEA SHOULD ONLY BE PRESCRIBED BY THE CLINIC**

Medicines are not required in the majority of diarrhoea cases. Most diarrhoea cases are self-limiting and stop in 4-5 days without any special treatment apart from ORS, Fluids and Food. Antibiotic use should be limited to special diarrhoea cases with blood or an associated bacterial infection, such as an ear infection or pneumonia. It is now known that antibiotics, if used in diarrhoea cases other than these special ones, can be harmful and may even prolong the diarrhoea. Antimotility medicines like opium (afeem), Imodium, Loperamide, Lomotil and Rheatrol, slow the elimination of the microbes and toxins and can lead to severe drowsiness, bowel obstruction, toxaemia and death. These antimotility medicines has been banned in Pakistan. Other antidiarrhoeals like Streptomagma and Kaopectate are useless. Antiemetics used to stop vomiting, such as Maxolon and Dramamine, make children very drowsy so that they do not drink or eat enough and become dehydrated. Antispasmodics like Buscopan also cause drowsiness. The MCU diarrhoea treatment policy states that no antidiarrhoeals, no antiemetics and no antispansmodics should be used in children, especially those under 5 years. The UNHCR survey showed that nearly three in four Afghan children are given medicines from the bazaar as part of the home treatment of diarrhoea. Afghans spend large sums of money on these useless and often dangerous medicines. Parents of children with

diarrhoea often bring large plastic bags full of these useless medicines to the MCU. Many parents will ask the health workers for medicines to stop diarrhoea. It is important that the TBAs take time to explain to the parents the dangers of giving bazaar medicines which have not been prescribed by the clinic staff.

## THE DANGER SIGNS OF DIARRHOEA

The presence of danger signs mean that the child is not getting better on home treatment and needs referral to the clinic. Use the HEAD-TO-TOE EXAMINATION for teaching the danger signs.

The HEAD-TO-TOE EXAMINATION for DANGER SIGNS in DIARRHOEA is:

| | | |
|---|---|---|
| . | Forehead | Fever. |
| . | Mouth | Thirst, eating and drinking poorly. |
| . | Bottom | Blood in stools and frequent stools. |

Children with fever, frequent vomiting and frequent stools are more at risk of developing dehydration and should therefore be given increased fluids and referred to the MCU for ORS. Children with blood in the stools need fluids, food and a course of antibiotics from the MCU staff. Children who are very thirsty and irritable are showing the early signs of dehydration and should therefore be referred to the clinic for the treatment of dehydration with ORS. If the TBAs ask you about other signs of dehydration like sunken eyes or a sunken fontanelle explain that these are much later signs of dehydration and the child is at risk of developing severe dehydration. The child should be referred to the clinic before these late signs develop. This is why the danger signs taught to the TBAs emphasise the early signs of dehydration: thirst and irritability.

## HOW TO PREVENT FURTHER EPISODES OF DIARRHOEA

Diarrhoea is caused by microbes in faeces contaminating water, food, fingers, feeding bottles and soothers, in other words everything that goes into the mouth. Flies also help to spread diarrhoea. Malnourished children have diarrhoea more often and more severely than well nourished children. This explains why there is more diarrhoea in communities where hygiene is poor, bottle feeding

is common and children are malnourished.

Breastfeeding is one of the best protections against diarrhoea. Breast milk contains antibodies to protect the baby from diarrhoea microbes. Mothers should give only breast milk to their babies for the first 4 months of life. During this time extra fluids and foods are not necessary and should not be given because they introduce microbes which can cause diarrhoea. This is why babies who are breastfed get very little diarrhoea and children who are bottle fed get diarrhoea. A mother should start breastfeeding as soon as possible after the baby is born. Other fluids such as gutti, sugar water, formula milk, and water should not be given. Even during the hot season, studies in Pakistan have shown that breastfeeding provides enough fluid for babies under 4 months of age and giving extra water is not necessary. A mother should increase the frequency of breastfeeding during and after diarrhoea.

Bottle fed babies get diarrhoea because it is difficult to keep the inside of feeding bottles clean and the water for making up milk formula often contains microbes which cause diarrhoea. A cup and spoon should be used instead of a feeding bottle for giving fluids. A famous Pakistani pediatrician has called feeding bottles for children a prescription for death. Even in the United Kingdom, where hygiene is good and female literacy levels are high, studies have shown that British babies who are exclusively breastfed for the first 4 months of life are 3 times less likely to get diarrhoea, ear infections and severe chest infections than bottle fed babies of the same age.

Mothers can protect their families from diarrhoea by washing their hands with soap and water before touching food or feeding a child. The soap helps to remove microbes which cause diarrhoea from the hands.

THE ROLE OF THE FHW IN THE HOME TREATMENT OF DIARRHOEA

The majority of diarrhoea cases can be treated successfully at home by following the 5 prime messages. These are:

- Give the child at least one extra cup of fluid after each watery stool to replace water loss.

- Continue feeding the child with breast milk and soft foods.
- Do not give medicines for diarrhoea; they may be dangerous and should only be prescribed by the clinic staff.
- Take the child to the clinic if the child has any one of these danger signs"
  - Has fever.
  - Becomes very thirsty.
  - Eats or drinks poorly.
  - Vomits frequently.
  - Has blood in the stools.
  - Passes very frequent stools.

  Prevent the child getting a further episode of diarrhoea by advising the parents to:
  - Breastfeed exclusively for the first 4 months of life (no other fluids or foods).
  - Use a cup and spoon not a feeding bottle.
  - Wash hands with soap and water before touching food.

The objectives of the Control of Diarrhoeal Diseases (CDD) programme for the Afghan refugees are to teach all parents these 5 prime messages and how to prepare and give ORS. An ORT corner is being established in every MCU to teach these prime messages and ORS preparation to all parents of children with diarrhoea treated at the BHU. Every diarrhoea case will be given 2 ORS packets to take home. you should take our TBAs to visit the ORT corner if one is established in the local MCU. The TBAs role is the make home visits to children with diarrhoea and teach these prime messages and ORS preparation to their parents. They should also use the ORS litre jug in their TBA kit to mark a line with a nail on a metal container in every household they go to. This container can be a kettle, cooking pot or jug and will vary in different households. marking a container for each Afghan refugee family will ensure that every time a person in the household has diarrhoea, the family will know how to prepare ORS correctly using a litre of water. Even if the family returns to Afghanistan, they will still have a permanent 1 litre mark for making ORS.

When the TBA first arrives at a home to visit a diarrhoea case, she

should ask the assessment questions to find out how the parents have been treating the child and whether the child has any danger signs. If danger signs are present, she should refer the child to the MCU. If danger signs are not present the TBA should stay with the parents and make sure they give enough fluids and ORS. One problem is that traditionally only small amounts of fluids are given during diarrhoea, perhaps 1-2 teaspoons 2-3 times a day. The TBA must sit with the parents and show them how to give a cup of fluid after each watery stool and more if the child wants more. The parents should give a teaspoon of fluid every minute. The TBAs can help the parents deal with any problems that may arise such as vomiting. If a child vomits, the parents should wait 10 minutes and then start offering fluids more slowly, giving a teaspoon every 2-3 minutes. Often a mother will say that her child will not take ORS, but the TBA will find if she sits with the mother and patiently shows her how to give the ORS with a cup and spoon, the child will take it easily. They should also encourage the parent to start soft foods as soon as the child wants to eat and show them how to mash the food and add a teaspoon of oil to each serving. The TBA must help the mother breastfeed more frequently by encouraging her to put the baby to the breast more frequently and getting the baby to suck for a longer period of time at each breast. Once the parents are able to follow all the prime messages the TBA can leave and then visit the child again the next morning. If the child has improved she can advise the parents to carry on with the same treatment. If the child has not improved or has developed any danger signs she should tell the parents to take the child to the MCU.

TBAs should report any increase in the number of diarrhoea cases in their community to their TBA who will then report this information to the MCU staff. If the TBA staff suspect an epidemic of diarrhoea, they will ask the TBA and TBAs to give the following advice to the community:

- Breastfeed, do not bottle feed (use a cup and spoon instead).
- Boil water for drinking.
- Wash hands with soap and water before touching food.
- Do not eat raw vegetables and fruit.
- Stools should be disposed of down a latrine or buried.

THE STORY OF SHAHEEDA'S BABY WHO GOT DIARRHOEA

This is the story of Shaheeda and her 8 month old baby son. Everybody in the community had complained to the group leader about the poor quality of water in the main well. He kept promising to buy some cement to improve it, but nothing ever seemed to happen. The clinic staff had asked the group leader to help them with the latrine building programme. That had been one year ago and still only half the houses had their own latrines. Shaheeda's house was not one of them.

Kala Jan had just finished her training as a TBA. In the previous few weeks, Kala Jan had noticed that she was being called to more and more cases of diarrhoea. Some of the children were very sick when she arrived, and after assessing them, she sent them straight to the clinic. She had decided to inform the TBA working at the clinic about the increase in diarrhoea cases she had seen, and had asked her husband to inform the group leader. She had gone round telling all the mothers of small children to boil water before giving it to them.

Shaheeda asked Kala Jan to come to see her baby who had started producing watery stools 2 days ago. Her mother had taken her and the baby to the local mullah who had given them a tawiz and advised Shaheeda to give water but stop any solid food. She had followed this advice, but the baby seemed to be shrinking away. When Kala Jan arrived she asked the assessment questions for diarrhoea she had been taught in her TBA training programme.

**Ask the FHWs what questions Kala Jan should ask.**

Shaheeda explains that she has been giving her baby breast milk and water. Her husband had brought some medicine to stop the diarrhoea from the bazaar. After giving the medicine, the baby's stomach had swollen up a little. She explains that the baby is not very thirsty, is eating and drinking well, and has not been vomiting. The baby is passing a few watery stools a day and they contain no blood.

**Ask the FHWs what Kala Jan should do with this baby.**

Kala Jan decides that Shaheeda's baby does not have any of the danger signs for diarrhoea. She praises Shaheeda for continuing to breastfeed and for giving extra water. She then starts to explain the prime messages for the home treatment of diarrhoea.

**Ask the FHWs what the prime messages for the home treatment of diarrhoea are.**

Shaheeda's baby passes a watery stools, so Kala Jan shows her how to give the baby an extra cup of fluid, giving a teaspoonful every minute. She explains that good fluids for diarrhoea are rice water, weak tea, lassi, soup and ORS. Shaeeda explains she has a packet of ORS in the house and would like to use it. Kala Jan tells her that ORS is a good fluid to use because it will restore her baby's appetite and strength quickly. She asks Shaheeda to bring a metal container from the kitchen. Kala Jan takes the plastic one litre ORS jug from her kit and fills it to the line with clean water from the covered well in the garden. She then pours this water into Shaheeda's kettle and scratches a line at the level of the water on the inside of the kettle. "This is the one litre line and every time you make ORS you should use the line in this container to measure the water." Kala Jan then shows Shaheeda how to empty the whole packet of ORS into the water in the kettle and mix it with a clean stirring spoon. She then places the lid back on the kettle. Shaheeda starts giving her baby a teaspoon of ORS every minute. Kala Jan explains that if she gives it more frequently than this, her baby may vomit. After the baby has finished the whole cup of ORS, Kala Jan encourages Shaheeda to breastfeed her baby again.

**Ask the FHWs what advice Kala Jan should give next.**

Kala Jan is very pleased because the baby is taking fluids well. She now advises Shaheeda to give some soft food like banana, yoghurt, rice and kidgiri. Shaheeda looks shocked. "But the baby has a tawiz and parhaiz from our local mullah. My baby is only allowed breast milk and water," she explains.

**Ask the FHWs what they would say to Shaheeda.**

Kala Jan calls Shaheeda's mother over and explains to both of them that the tawiz is a very good protection for the baby, but the baby

also needs good food to fight the illness. She explains that many babies become thin after diarrhoea because their mothers stop feeding them. The same thing could happen to Shaheeda's baby. Shaheeda's mother has already seen one grandchild die of diarrhoea, and she doesn't want it to happen again. She remembers that parhaiz was also recommended for that baby. "God gave us a mind so that we could learn from our mistakes," she thinks to herself. Shaheeda's mother goes off to make some kidgiri for her grandson. Kala Jan advises her to add a teaspoon of oil to each serving and then give a few teaspoonfuls of kidgiri 6 times a day.

**Ask the FHWs what advice Kala Jan should next.**

Kala Jan asks Shaheeda's husband to show her the medicine he has brought for the baby to stop the diarrhoea. She says: "This is way your baby has a swollen stomach. I am going to take this medicine and throw it down your latrine. The only medicines you should give your baby are medicines prescribed by the clinic staff. Any other medicines are useless and sometimes even dangerous." "But I don't have a latrine," says Shaheeda's husband. "Wy not?" asks Kala Jan. "Our group leader has not got round to organising building one yet," he explains. "We should ask him to hurry up. Latrines are very important for cleanliness and help prevent diarrhoea," says Kala Jan.

**Ask the TBAs what advice Kala Jan should give next.**

Kala Jan explains the danger signs to Shaheeda using the head-to-toe method and tells her to take her baby to the clinic if he develops any one of these signs.

**Ask the FHWs what advice Kala Jan should give next.**

Kala Jan can see a feeding bottle in the other room. Shaheeda explains she has been using it to give cow's milk to her baby. Kala Jan explains to Shaheeda that she can reduce the risk of her baby getting another episode of diarrhoea by replacing the feeding bottle with a cup and spoon. Kala Jan is pleased to see soap in a container near the family's hand washing bowl. She asks Shaheeda when the soap is used. Shaheeda explains they use it mainly when they have guests. Kala Jan explains that if Shaheeda washes her

hands with soap and water before preparing food for her baby or feeding her baby, she can reduce the risk of the baby getting diarrhoea. Shaheeda is very happy to hear this. She can now understand that the feeding bottle and her dirty hands have increased the risk of her baby getting diarrhoea and she is determined not to let it happen again.

Shaheeda's baby has now taken 2 cup of ORS, one cup of some special rice water made by Shaheeda's mother and a bowl of kidgiri. He vomited once after the first cup of ORS, but Kala Jan has explained that because he was thirsty he had taken the ORS too quickly. She advises Shaheeda to wait a few minutes and then give it more slowly,. a teaspoon every 2-3 minutes. Kala Jan is pleased with the progress Shaheeda's baby is making and explains that she will come back the next morning to check up on him.

**Ask the FWWs what Kala Jan should do before she leaves.**

Kala jan asks Shaheeda to repeat the prim messages to her before she leaves. Shaheeda explains them all perfectly.

When Kala Jan visits the next morning Shaheeda's baby is getting much better and has only passed one watery stools over night. Kala Jan explains that they should carry on with the treatment and watches Shaheeda make a litre of ORS. She is pleased to see that Shaheeda makes it correctly using the kettle she marked yesterday. She advises Shaheeda to give the baby an extra meal each day for 2 weeks after the diarrhoea stops. Shaheexa and her mother thank Kala Jan for her help. They hear later that the group leader's little baby daughter has died of diarrhoea, and that he is so shocked by this that he is pushing through the well improvement programme as fast as possible. He has also learnt his lesson, Shaheeda's mother thinks sadly to herself.

**TOPIC: SAFE MOTHERHOOD**

Time: 1-2 sessions

(Part2 Chapter 12...96)

OBJECTIVES

1. For the trainer to find out what the TBAs and their communities feel about birth spacing.

2. For the TBAs to learn about birth spacing methods and their importance.

3. For the TBAs to give advice about birth spacing during home visits.

PREPARATION

Discuss with the clinic staff whether there is much interest in birth spacing methods in the community. Bring clinic staff along to the session. Find out which methods are preferred by the community, and whether they are available at the clinic or elsewhere. This is a very sensitive subject among Afghans and you should only teach it if you feel it is relevant to these TBAs and their community.

TEACHING MATERIALS

Red market pen.
Pictures (different family planning methods, picture of woman with a lot of children and picture of a woman with spaced births).
Quote from Quran on birth spacing.

INTRODUCTION

Ask the TBAs about their work and families.
Ask about 2-3 home visits from the last session and revise the main points.

LESSON PLAN

MAIN POINTS HOW TO TEACH THIS

1. Why Spacing Births by 2

(Part2 Chapter 12...97)

Years is Important.

The Quran recommends that women should space their births by at least 2 years. This is to protect the baby by allowing breastfeeding for 2 years. It protects the mother by allowing her baby to recover from a pregnancy and delivery. If a family can space each birth by at least 2 years, then mother and children will be healthier and less likely to be handicapped or die.

- What is the interval recommended between births to ensure the health of both mother and child?
- Discuss this. Get TBAs to talk about their own pregnancies.
- Show pictures of a family with a lot of children, and one with well spaced children.
- Discuss these pictures.
- Quote from the Quran. Surat XLVI (Ahqaf) Verse 15.
  "His mother kept him in her womb and delivered him. Looking after the child until he is weaned takes 30 months."
- Explain that spacing births by at least 2 years makes mothers and children healthier.
- Explain that Islamic scholars agree that there is no part in the Quran which forbids family planning.

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**2. Women who should Avoid Pregnancy.**

Pregnancy and delivery are dangerous times for some women.

- Can you remember for which women pregnancy is dangerous? Explain the 5

The following women should avoid pregnancy completely.

- Very old women.
- Women with more than 5 children.

And the following women should wait 1-2 years before becoming pregnant.

- Very young girls.
- Women with a child under 2 years.
- Women who have been very sick and are still receiving treatment.

types of women.

- Explain that very old women and women with more than 5 children should not have any more babies.
- Discuss this. Afghan women often have about 8-10 pregnancies, with only about half the children surviving.

- Explain that under 17 years a girl's body is not fully grown and she may have problems during delivery.
- Discuss this. Afghan women marry very young and have a lot of children very quickly.

- Explain that a woman with a child under 2 years should delay becoming pregnant to give her body a rest and allow her to look after the child.

- Discuss this. Afghan women often stop breastfeeding, when they become pregnant again. The breastfed child is suddenly weaned and starts to become thin. This is when many Afghan children become sick and die.

- Women who have been very

sick should give their body a rest before becoming pregnant again. If they are taking any medicines, these could harm the unborn baby. TB is an example of such a sickness.

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### 3. Methods for Avoiding Pregnancy.

The FHWs should know that the following methods help a woman avoid pregnancy:

- Breastfeeding exclusively for the first 3 months.
- not sleeping with her husband at her most fertile time. For a woman the fertile time is the third week of her menstrual period and the few days before it. The other weeks are called the safe time.
- Husband withdrawing his penis from the woman's body before the sperm comes out.
- Husband wearing a condom during intercourse.

If the family want advice on other more efficient methods,

- Do you know of any methods of avoiding pregnancy?
- Discuss this. Many Afghan women know that breastfeeding reduces fertility. It is only effective for the first 3 months.
- Use your 4 fingers to explain the fertile period. Put a red mark on the 1st finger to represent bleeding. Point to the 3rd finger to show that this and the few days before it are the fertile week when the woman's egg is made.
- Get FHWs to do this with their own fingers. Ask them to point to the safe weeks.
- Explain that the Prophet (PBUH) and all 4 Islamic

the FHW should advise them to go to the clinic. These methods include injection, the Pill, operations and IUCDs.

Women are most interested in birth spacing just after delivery, and this is the best time for the FHWs to give birth spacing advice.

Law Schools (including the Hanafi school found in Afghanistan) permit azl, the practice of withdrawing the penis from the woman's body before the sperm comes.

- Explain that condoms are one of the most commonly used birth spacing methods and are available in most bazaars. Children use them as balloons.

- Explain that if people want to use more efficient methods than these, the FHW can advise them to go to the clinic where they have the Pill and injections for women.

- Show pictures of the different methods.

- Role-play: a FHW giving advice to a mother, with 4 children under 5 years, who is complaining of tiredness. Her mother-in-law wants more grandchildren.

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REVISION OF MAIN POINTS

1. Zara has a new baby. She has another baby aged 15 months. You make a home visit after the delivery.
   What5 advice would you give her about her next pregnancy?

2. Gul Bibi has had 8 pregnancies. She has 4 live children, all boys and she would very much like a little girl. She is about 43 years old and has asked your advice about having another baby.
What would you say to her?

3. Maryam is newly married and 15 years old. Her mother-in-law is very excited about having a grandson to inherit the family land.
What would you say to her mother-in-law about this?

4. Henna has been very sick and is on TB medicine. She has another 5 months of the medicine to take. Her husband asks your advice about when it will be all right to try for another baby.
What advice would you give him?

5. Latifa thinks she is most fertile just before and after her monthly period, and this is when she avoids sleeping with her husband. She cannot understand why she is pregnant again.
What would you say to her?

HOME VISITS

Ask the TBAs to discuss birth spacing with people in the community who might be interested. They should discuss with the clinic staff which birth spacing methods are available at the clinic and how they can refer people. Remind them that women are most interested in birth spacing advice just after delivery.

REFERENCE PAGES

TOPIC: SAFE MOTHERHOOD

INTRODUCTION

When a woman has frequent pregnancies with little space between

them she becomes weak and anaemic. Her breasts make less milk. Her babies are more likely to become malnourished or die. After many pregnancies childbirth becomes more dangerous and the mother may die leaving many motherless children. With a lot of children in a family it becomes more difficult to feed, clothe and educate them all well. it is healthier both for the mother and her children to space births by 2-3 years.

Health statistics show that increasing the birth interval from less than one year to over 2 years reduces the number of babies under 1 year dying by half. Birth spacing by at least 2 years allows every baby to get enough milk and the mothers to recover between pregnancies.

The woman and her husband can choose several different methods for spacing births. Advice on these can be obtained from the clinic or special family planning centres. The TBAs can also give advice to women at the time when they are most interested in avoiding pregnancy, just after delivery.

Birth spacing is a very sensitive topic among Afghans for many reasons - traditions, their religion and the fact that many young Afghans are being killed all encourage producing children. There were family planning clinics in Afghan citics before the war and they were popular. The most common methods were injections and the Pill. IUCDs (coils) are not usually culturally acceptable. Condoms are widely available both in Afghanistan and Pakistan. Afghans have a very high birth rate, one of the highest in the world. There are many reasons for this: early marriage for women, lack of female and male education, very high child death rate (about 1 in 3 under the age of 5 died in pre-war Afghanistan) and poor availability of birth spacing methods to most Afghans.

## TRADITIONAL BELIEFS AND PRACTICES

Traditionally Afghans have used various herbal mixtures taken by mouth or inserted vaginally to avoid pregnancy. They think that the woman is at her most fertile just before and just after a period. This means that at the time when the woman is most fertile, in the middle of her cycle, many Afghans think that she is at her least

fertile. In other words, many Afghans think that the safe time is the fertile time an the fertile time is the safe time. A lot of Afghan women know that breastfeeding reduces their fertility.

Increasing fertility rather than decreasing it, is a major concern for many Afghan men and women. The majority of their traditional treatments for fertility regulation are taken to increase fertility. They think that humorally hot foods increase fertility and cold foods reduce it. A woman who has just delivered is considered to be in a cold state, and to increase her fertility again she is given hot foods like halwa, eggs and nuts.

WOMEN WHO SHOULD AVOID PREGNANCY

Pregnancy and delivery can be dangerous times for all women, but there are a few women who are particularly at risk. These are:

**Very old women.**
Older women are more likely to suffer from toxaemia, high blood pressure, blood clots in the legs and chest, poor contractions of the uterus, prolonged labours and difficult deliveries requiring a caesarian section operation or forceps. They are also more likely to suffer from heavy bleeding after delivery and the baby may have difficulty breathing after a prolonged labour. Babies of older women are twice as likely to die in the first month of life and to have congenital abnormalities like Down's syndrome (brain damage and mongoloid eyes).

**Women over 40 years should avoid pregnancy completely.**
A permanent contraceptive method like sterilisation for the man or woman is good. Depoprovera, the Progesterone only Pill and IUCDs are also recommended.

**Women with more than 5 children.**
These women are more likely to be malnourished and severely anaemic from repeated pregnancies. They are more likely to have a baby lying in an abnormal position (transverse, oblique, breech), and a ruptured uterus or heavy bleeding as a result of an over stretched uterus.

They should avoid pregnancy completely by using an efficient method

of contraception like a sterilisation operation, IUCD, Depoprovera or the Pill.

**Very young girls.**
The custom in Afghan society is for girls to marry very young and start having babies straightaway. Young girls under the age of 17 years are not fully grown, and they are more likely to have a prolonged or obstructed labour as a result of narrow hips. Their babies are more likely to be born small and weak.

These girls should avoid becoming pregnant until they are over 17 years. This would have to be discussed with their husbands and mother-in-law. Temporary methods like the Pill or Depoprovera are recommended.

**Women with a child under 2 years.**
Afghans think that a pregnant woman's milk is bad and many women suddenly stop breastfeeding a child when they become pregnant again, even though the child is not fully weaned. If this child is under 2 years, he or she has twice the risk of dying as a child of 3 years. If a woman becomes pregnant too soon., 3 people will be at risk of malnutrition, the mother, the child under 2 years old and the unborn child. Women should not rely on breastfeeding alone to prevent them becoming pregnant again. This is only fully effective for the first 3 months and only if exclusive breastfeeding is practiced. These women should use a method that does not affect their milk supply, like the Progesterone only Pill, Depoprovera or an IUCD.

**Women who have been very sick and are still on treatment.**
There are many different sicknesses such as TB, malaria, kidney infections, heart disease, diabetes, severe anaemia, where the woman must wait to get better and finish treatment before becoming pregnant again. If she does become pregnant during the sickness, she will put her own life and that of the baby at risk. The medicines she is taking may harm the baby. An example of this is Streptomycin injection which will make the baby deaf. She must use a birth spacing method that does not affect her sickness. For example, women with high blood pressure and heart problems should not take the Combined Pill which contains oestrogen and can cause blood clots in these women. The safe time, condoms and IUCD are all



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recommended. It is also important to remember that the risk of serious illness or death resulting from pregnancy for these women is many times greater than the risk involved in using any of the common methods of birth spacing.

## METHODS FOR AVOIDING PREGNANCY

The FHWs should know the following methods for avoiding pregnancy:

### Breastfeeding.

When a woman is breastfeeding she is less likely to become pregnant, because the sucking action of the baby sends a message to the ovary via the brain to stop the woman producing an egg every month. After 3 months when the baby sucks less often at the breast, fewer messages are sent and the woman starts making eggs again. The more often she puts the baby to the breast, the less likely she is to become pregnant. This is why exclusive breastfeeding is the best birth spacing method. Women should be told to breastfeed for as long as possible, ideally at least 2 years and put the baby to the breast frequently, even when they do not have much milk. Many Afghan women are aware that breastfeeding reduces fertility.

### The Safe Time.

A woman's monthly cycle consists of a week of bleeding and 3 weeks without bleeding. These times can vary a little in different women, but the average cycle is about one month. Explain the monthly cycle to the TBA using your 4 fingers, with the first finger marked with a red pen. usually a woman only makes an egg during 8 days of her monthly cycle and only on these 8 days is she able to become pregnant. These 8 days are called the fertile time. if she wants to avoid pregnancy she should not have sex with her husband during these 8 days or he should wear a condom. The 8 day fertile time comes midway between two monthly bleedings, starting 10 days after the first day of her bleeding. The remaining 3 weeks in the monthly cycle is the safe time (one week of bleeding and 2 weeks with no bleeding.) During this time if she has sex with her husband she will not become pregnant. This method words well for women who have their periods regularly every 4 weeks and can record them on a calendar. They can then calculate the fertile period by counting 1 days from the first day of their bleeding. The method is more difficult for illiterate people, but they may be helped by the

phases of the moon, and the 4 finger method, although this may not be completely accurate. They could mark each week with a finger print, scratch mark or knot in a string, making the week of bleeding the first week. Just befrore they get to the third print, mark or knot they will know that they must avoid sex or ask their husband to wear a condom. This is just one suggestion for helping illiterate women use this method successfully. Try to think of other methods. Discuss this with the TBAs because they will also have the same problem when they are teaching other women.

**The Withdrawal Method (Azl).**

In this method the husband withdraws his penis from the woman's body before the sperm comes. This is not a very effective method because some sperm leak out into the vagina without the man knowing. If there is no other method of family planning available, then this is better than nothing. This methods is recommended in the Quran by the Holy Prophet (PBUH) as long as the wife has given permission. it is probably the most widely practiced birth control method in the world.

**Condoms.**

The condom is a rubber balloon that the man wears over his penis during sex to stop the sperm going into the vagina. it is rolled over the hard penis just before sex. It also protects against sexually transmitted diseases like AIDS, gonorrhoea, syphilis etc. it is one of the most popular methods and condoms are widely available in most bazaars throughout Afghanistan and Pakistan. Children buy them and use them as balloons. It is best to use condoms only once and then throw them away.

**Other More Effective Methods Available from Clinics.**

If people in the community want advice on more effective methods than those described above, the TBA should send them to the clinic. She can talk to the clinic staff and discover which methods are available. Afghan women prefer the Pill and Depoprovera injections.

A more detailed description of some of the methods follows. Some refugee camp clinics provide the Pill, Depoprovera and the IUCD. Special clinics in the city provide these methods plus others such as the cap and sterilisation operations. The permission of the husband is always requested before providing these to a woman.

**Depoprovera Injection.**
Depoprovera is an injection of female hormone which lasts for 3 months. It should be given during a monthly period or just after childbirth to make certain the woman is not pregnant. If given during pregnancy. it can harm the unborn baby. It can however be given when a woman is breastfeeding. So long as a woman wants to avoid pregnancy, she can come back every 3 months for the injection. When she wants to become pregnant again she just stops coming back for more injections and waits 3 months for the injection to stop working.

This injection has a few minor side effects which are not harmful but tend to worry Afghan women. Periods may become irregular and sometimes even stop completely for a few months. The TBAs should reassure the women that this sometimes happens and they should just wait patiently for the periods to become normal again. Women often worry that a missed period means they are pregnant again. The FHWs should reassure them that this is only a side effect.

**Intro-Uterine Contraceptive Device (IUCDs).**
The IUCD is a sterile small plastic coil which is inserted into the uterus by a specially trained female health worker. It prevents pregnancy by stopping the fertilised egg attaching to the lining of the uterus. There are several different types of IUCDs, some that should be replaced every 2 years (copper types) and some that do not need to be replaced (plastic only) and can stay in for as long as the woman wants. When the woman wants to become pregnant again, she should go to the clinic to have the coil pulled out. This is a very convenient method for Afghan women, who find it difficult to travel or visit the clinic very regularly.

The IUCD has a few minor side effects including slightly heavy painful periods for the first few months. These usually settle down. These is also a risk of pelvic infection.

**Combined and Progesterone only Pills.**
The Pill is only suitable for women who can understand that they must take these pills every day and come back to the clinic regularly to get new supplies. If the woman does not

take them every day they will not work and she risks becoming pregnant. The Progesterone only Pill is safe to take when breastfeeding. The Combined Pill (contains oestrogen and progesterone) should not be given because it reduces milk supply. Side effects include period changes, nausea, and painful breasts but they usually settle down after a few months.

**The Cap.**
This is a small rubber cap inserted by the woman into her vagina and over the cervix just before sex. She should take it out a few hours after sex. it is more effective if covered with a cream that kills sperm before being inserted.

**Sterilisation.**
If the man and woman have decided they do not want any more children, they can choose to have an operation which is permanent. Either the man or the woman can have the operation. The operation in the man is very simple and quick and involves tying the tube that takes the sperm from the testes to the penis. This operation will not effect his masculinity or sex life. The woman can have an operation to tie the tubes connecting the ovaries to the uterus. This is a bigger operation but also quite safe.

## ISLAMIC VIEWS BIRTH SPACING

According to Islamic scholars there is no section in the Quran forbidding a man and his wife to practice birth spacing or to plan their families. All 4 schools of Islamic law, including the Hanafi school found in Afghanistan, permit azl (coitus interruptus). The Prophet (PBUH) approved of this practice as long as the woman had given permission.

The following quote recommends that women space pregnancies by 30 months for the good health of the child: "His mother kept him in the womb and delivered him painfully. Looking after the child until he is weaned takes 30 months." Sura XLVI (Ahqaf) Verse 15.

# CHAPTER-XIII

## TRAINING AND SUPERVISION OF TBAs;

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# CHAPTER XIII: TRAINING AND SUPERVISION OF TBA'S.

## I: TRAINING.

1.1: OBJECTIVE OF TBA TRAINING.

1.2: ROLE OF TBA IN RURAL AFGHANISTAN.

A. Ante-natal care.
B. Labor and post-natal care.
C. Infant care.

1.3: MOTIVITION OF COMMUNITY.

1.4: SELECTION.

1.5: NUMBER TBA'S.

1.6: HOW TO IMPART TRAINING TO THE TBA'S.

1.7: TRAINING SCHEDULE.

1.8: TEACHING.

A: Understanding the students (TBA's).
B: Learning Principles.
C: Teaching Methods.
D: Topics.

## II: SUPERVISION OF THE TRAINED TRADITIONAL BIRTH ATTENDANTS.

1.1: THE FUNCTION OF SUPERVISION.

- Recognition.
- Protection.
- Motivation.
- Education and counselling.
- Technical assistance.
- Linkage.
- Monitoring and control.
- Evaluation.

1.2: SUPERVISION BY MCHO.

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## I. TRAINING AND TBA'S.

### 1. Objective of TBA/Training.

After going through MCHO will be able to:-

- Explain TBAS role in Afghanista rural communities.
- Describe her role in motivating community for starting TBA/Training programme in working area.
- Motivate community to identify those women for TBAS/Training. Who are near to selection critearia.
- Impart training to TBAS using various teaching methods in their own village.
- Demonstrate appropriate use of FHW training manual for teaching TBAS.
- Prepare proper schedule for training. Teach the TAB about their role on anti-natal period.
- Explain how they can recognise normal and high risk pregnancy.
- Explain how they can help women in community have healthy pregnancy.
- Explain how women have safe normal delivery.
- Describe their role in identify and managing high risk pregnancy delivery and post natal period.
- Demonstrate they can manage diarrhoea.
- Explain TBA role in immunization for children against 6 diseases and TT vaccination for pregnant mothers.
- Explain how TBA can encourage women to breast feed their children.

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- Demonstrate to TBA can prevent and nutrition in the children and assess the growth using arm measurement band.

## II.2 ROLE OF TBA IN RURAL AFGHANISTAN.

### A: Ante-natal care.

TBA'S responsibilities during pregnancy are as follows.

1. Identify pregnant mothers in the village and get the MCHO them register at MCHO post.

2. Provide information to pregnant women about ante-natal services available at MCH post and to use them.

3. Provide information about:-

   - Personal and domestic hygiene.
   - Importance of diet-rest and sleep during pregnancy.
   - Importance of periodic examination during pregnancy.
   - Importance T T vaccination during pregnancy.

4. Identify common problems during pregnancy labor, delivery and post natal and to refer them.

5. Identify High Risk mothers, accompany or refer them to MCHO.

6. Carry out routine ante-natal check up at home.

7. Take them women to MCHO Post for special examination.

8. Inspect articles needed for home delivery.

### B: LABOUR AND POST NATAL CARE.

- Conduct normal delivery using safe delivery method and Dai kit.

- Inform MCHO immediately andy abnormal condition occur during

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pregnancy.

- Provide immediate care to new born.

- Provide emergency care for of birth.

- Instruct family to give good food and adequate rest to the mothers.

- Provide iron and folic acid tablets to pregnant and lactating mothers.

- Instruct mother for breast feeding to the baby as soon as possible after delivery.

- Pay post natal visits and carry out necessary care procedure and health education.

- Inspect lochia, involution of uterus, General health and hygien and diet.

- Attend baby cord. Refer umbilical infection.

- Provide information how to delay pregnancy.

- Report birth and death to MCHO and local office.

C: INFANT CARE.

- Provide immediate care to new born baby.

- Carry out first physical examination of baby.

- Weigh the baby using.

- vice mothers for breast feeding and solid introduction form age 4 months.

- (Adv mothers for vaccination of children and complete series.

- Adv mothers to take sick children to MCHO for proper checkup.

- Provide ORS packet to mothers whose child got diarrhoea.

- Monitor health status of children using arm measurement. Refer to MCHO when the arm measurement shows yellow and red.

**1.3: MOTIVATION OF COMMUNITY.**

Before a TBA programme is introduced, the leaders of the community should be consulted, and the programme should be explained to them in detail. It is essential that their active support is obtained before starting a programme. The leaders should also be made aware that they have a responsibility to make the programme effective.

All the following people should be involved in the motivation of the community for the TBA training programme:

- District, area and village administrators.
- Group leaders, health committees, jirgas.
- Clinic staff.
- Male Community Health Supervisors (CHSs) and Community Health Workers (CHWs).

You can motivate the community by saying the following:

- The trainees are also Muslim and respect purdah.
- The TBA will be working for their own families and will not be forced to work in other parts of the refugee village.
- The work of the TBA is like a jihad as she looks after the family while the men are away fighting.
- Most doctors are male and cannot attend deliveries which is why TBA are needed.
- It will take many years before there are enough clinics and hospitals in Afghanistan for everybody. In the meantime the TBAs can help by looking after pregnant women and sick children in the community.
- With knowledge, you can build a nation.

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(See also Islamic Quotes, page 303 on motivating the community.)

The clinic staff should be involved as much as possible in the motivation and selection. This will encourage good links between the clinic and community health workers. You must explain to the community that the TBAs are volunteers and will not receive a salary, only incentives.

**1.4: SELECTION.**

After motivation, your should ask for women to be nominated for training the community and the staff of the M.C.U. Try to select only one women from each family. In selecting women, consideration should be given to providing coverage to all geographic areas of the refugee village. Each woman selected should be most of the following:

- Someone who attends deliveries regularly.
- Active and mobile with access to a number of families (5 or more families) outside her own compound.
- Not too old, not too young.
- Healthy.
- Interested in training. Do not take somebody who has been forced by her family.
- Friendly, polite, willing to help others and a good communicator.
- Respected by the community.
- Able to learn new ideas.
- Without heavy domestic responsibilities, so that she is able to attend the training sessions and also deliveries.
- Aware that she will work as a volunteer.

One woman for every 5,000 of population will be chosen to be the link between the MOH and the TBAs. She must be able to travel.

**1.5: NUMBER OF TBAs.**

The limiting factor in training FHWs is the number of M.C.H.

staff available to supervise. One M.C.H. staff member can only supervise 25-30 women on a regular basis.

This number of women, 25 to 30, can provide a solid basis for a community orientated MCH programme. If more than one female supervisor is employed, then the number of TBAs can be increased. However, it is essential the M.C.H. staff maintain regular contact with all TBAs trained.

1.6: HOW TO IMPART TRAINING TO THE TBAS.

Once village leaders are agreed, TABS/CHW are nominated by the community and site for training is identified in the village you state conducting sessions.

For TBAS training, various topics are given in the book. However, you can start training from any topic according to the need of the community/wished of the learner.

Conduce most of the training in the village. However, these TBAS need to know about services, location of the MCHO Post so few sessions can be conducted at the post.

As MCHO remember that TBAS are volunter and they have other responsibilities therefore training time should be scheduled according to their availability.

Training session should not be longer than 2-3 hours as they are illiterate and need to learn and communicate accurate information so restrict yourself only one or two topics at one time.

Use various methods of teaching discussion roleplay, demonstration story telling + visural aid to train them. Encourage TBAS trainers to be active participants in the leaning.

Remember that each TBA will have different level of understanding. Some of them may quickly pick up the subject, some may need more time to practice the skill.

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## 1.7: TRAINING SCHEDULE.

- Training may be conducted at one TBAS home or can be rotated to various houses or can be maliks/commanders house.

- Adjust your time table to the availability of TBAS. Morning or afternoon. Alternate day or twice a week. It is recommended that you conduct 2 hours training sessions at alternate days or 3 hours training twice a week.

## 1.8: TEACHING.

### A. UNDERSTANDING THE STUDENTS (TBA's).

Show respect to the FHWs, especially if they are older than you. Remember they often have many year's work experience in their community, delivering babies and caring for sick children. They have learnt their skills from other women in the family, and in Afghan society there is already a tradition of training women in mother and child care. Your training of the FHWs will help to improve the skills they already have and will add new skills and knowledge. You should encourage your FHWs to teach these new skills to other women in their community. At the start of every session ask the FHWs about the work they have been doing in the community since the last session.

### B. LEARNING PRINCIPLES.

Different people learn at different speeds and in different ways. Creation methods suit some people more than others. Here are some basic principles for you to think about when teaching.

MOTIVATION.
Students learn faster, if they are interested and want to learn.

SOCIAL RELATIONSHIP.
Students learn better, if there is a good relationship and respect between teacher and student.

PHYSICAL ENVIRONMENT.

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The place you teach in should be quiet and comfortable with few distractions.

CLARITY.
Lessons should be spoken clearly, slowly and in a language understood by the students. They can also be improved by using visual aids.

RELEVANCE TO PREVIOUS EXPERIENCE/FUTURE PRACTICE.
People learn faster and are more interested, if the new information is related to what they already know and to what they are expected to do.

STRUCTURE.
Students learn faster, if the lesson is presented in a structured, ordered way. This is especially true for illiterate students because structure helps memory. An ordered curriculum and clear lesson plans will provide clear structure.

ACTIVE LEARNING.
Active participation in solving problems and practising skills makes learning faster and long lasting.

SPEED.
The speed of learning must be adjusted to the ability of the group.

REPETITION.
Illiterate students are totally dependent on memory and learning needs to be reinforced by repetition.

FEEDBACK AND EVALUATION.
Feedback and evaluation enable both the student and teacher to know whether the subject has been learnt and understood or not.

WHAT MAKES A GOOD TEACHER.
Here is a list of questions to help you to assess your own teaching and that of other trainers.

- Do you ask students questions?

- Do you arrange for the students to practise solving problems?
- Do you tell students how well they are doing?
- Do you explain the mistakes they are making?
- Do you use simple language?
- Can the students hear and see?
- Do you make the information relevant to the student's lives?
- Do you give a lot of examples?
- Do you give summaries?
- Do you check that all students understand each point?
- Do you allows students to work at different speeds?
- Do you use several different teaching methods?
- DO you show an interest in your students and show that you care?
- Do you listen to the students comments on your teaching?

You should keep this checklist as a reminder.

C. TEACHING METHODS.

Although the FHW is illiterate, she has considerable experience of life. The teaching methods used should be adapted to her situation and will differ from the teaching methods you are accustomed to. (See Chapter-I).

TOPICS.

I. INTRODUCTION.

II. KIT, REPORT FORMS AND A RESUPPLY SESSION.

III. MICROBES AND HANDWASHING.

IV. HOUSEHOLD CLEANLINESS.

V. TETANUS.

VI. NORMAL PREGNANCY.

VII. HOME VISIT DURING PREGNANCY.

VIII. DANGER SIGNS IN PREGNANCY.

IX. NORMAL LABOR.

X. DANGER SIGNS IN LABOUR.

XI. NORMAL DELIVERY.

XII. DANGERS SIGNS AT DELIVERY.

XIII. VACCINATIONS.

XIV. HOME VISITS DURING THE FIRST FEW DAYS AFTER DELIVERY.

XV. DANGER SIGNS IN THE FIRST FEW DAYS AFTER DELIVERY.

XVI. DIARRHOEA.

XVII. SAFE MOTHER HOOD.

SUPERVISION OF THE TRAINED TRADITIONAL BIRTH ATTENDANT.

Supervision is an essential part of any TBA prgoramme. TBAs

who are left on their own after training will not perform well, if indeed they work at all. They require continuous support, reinforcement of skills and information to work successfully. Contact must be maintained regularly between the TBAs and supervisory staff with meetings every 1-2 months. Meetings should take place in a private house and should include the following:

- Reporting of births, and names of women who have delivered, so that follow up for EPI, growth promotion for baby, and postnatal care for women can be organised.
- Discussion of problems occurring during the month.
- Feedback on cases referred by the TBAs during the month.
- Resupply of some kit items.
- Check of kit every 3-6 months to see if it is being used properly.
- Revision of topics covered during the training.

The supervisor should also visit each TBA in her home at least once a month for an informal discussion.

- Protection of status: Explaining to the community that the traditional birth attendant really is more effective after training and can do something of value for the community.
- Motivation: encouraging the traditional birth attendant to practice what she has been taught.
- Education and counselling: reinforcing learning and better practices, as well as providing continuing training.
- Technical assistance: Helping the traditional birth attendant to identify and refer women at risk: seeing referred cases with the attendant.
- Linkage: assisting the attendant and the community to make use of referral services, cooperation between government midwives (or other health workers) and traditional birth attendants. The TBA should inform the MCHO about the deliveries attendant by him.
- Monitoring and control: checking records and performance.
- Evaluation: gather information to assess the effectiveness of traditional birth attendants.

SUPERVISION BY MCHO.

MCHO being trainer can supervise TBA'S practices during

1. home visits while TBA is advising mothers.
2. conduction delivery when MCHO is also called for.
3. MCHO can refer her knowledge if TBAS have forgotten something also she can get information about birth and death occurred during that time. Replacement of consumable items is also her duty.

Example of some existing practices among TBAs and proposal for their modification, as seen by a MCHO during supervision.

| Existing Prectice | Proposed action by MCHO. |
|---|---|
| 1. Prenatal care. | |
| a. Advise on food but lacks knowledge and encourages adherence to taboos, some of which are unsafe, e.g., discourages consumption of meat and eggs hot foods. | Teach essential principles of nutrition and advise mothers eat green leafy vegetable meat and fruits:- |
| b. Give incorrect advice on personal hygiene, e.g. advises against bathing. | Should learn about essential elements of personal hygiene and should advise mother accordingly. |
| c. Administers local potion without awareness that some may adversely effect development of the fetus. | Should learn about and suggest the uses of available harmless drinks. |
| d. Does not recognize danger signs and symptoms. | Teach how to recognize danger signs and symptoms when refer to nearest health MCHO post. |
| 2. Delivery: first stage. | Demonstrate the need of cleanliness of instruments and of place for delivery. |
| a. Does not arrange instrument for the delivery and does not ensure cleanliness of | |

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| | |
|---|---|
| instruments and site of delivery. | |
| b. Tries to hasten labour by various means, e.g. | Explain about the approximate duration of normal labour and danger to hasten it. Mothers experiencing prolonged labour should be refer to Hospital. Advice to administer harmless drinks like milk, tea, juices. Demonstrate gentle massage and include area other than the uterus. |
| - Administers herbal concoctions, some of which may hasten labour when not warranted or may otherwise be harmful.<br>- Sequeezes uterus forcefully, or places tight bands on opigastric region<br>- Insert tampons of local concoctions into vagina | Explain danger and advice nothing should be inserted into the vagina. |

TOPIC: INTRODUCTORY SESSION.

OBJECTIVES.

1. For the trainer to get to know the FHW's work, families and community.

2. For the trainer to explain the training course.

3. For the trainer to explain the work of a trained FHW.

PREPARATION.

Bring along a book to record the names of this new group of FHWs. Introduce yourself to the people in the house where the training will be taking place and explain a few things about the training (which days, how long, providing tea etc.)

TEACHING MATERIALS.

Pictures (Women's health problems, children with polio, measles and malnutrition). Doll, placenta and cord.
FHW kit.

INTRODUCTION.

Introduce your self by name to the FHWs and tell them something about your work experience and family. Ask the name of each FHW and get them to talk a little bit about their own work experience and families.

**LESSON PLAN.**

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| MAIN POINTS. | HOW TO TEACH THIS |
|---|---|

**1. The work of afghan dais and wise women in the Community.**

| | |
|---|---|
| Older Afghan women and dais do community by looking after women during pregnancy and delivery. They also take care of sick children. They use traditional treatments learnt from their own mothers.<br><br>They assist at deliveries and go on regular home visits after delivery to look after the mother and the newborn baby. | * How do you help women during very important work in their pregnancy and delivery?<br>* Discuss this.<br>* How do you help sick children?<br>* Discuss this. They probably have different traditional methods of treatment for all common childhood sicknesses like coughs and diarrhoea.<br>* Ask them what they use. |

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**2. Women's Ideas on Health Problems in their Community.**

| | |
|---|---|
| Afghans have their own ideas on health problems in their community and what needs to be done about them. You should find out from these women what their ideas are on health problems and what they think can be done about them.<br><br>Many sickness can be made less dangerous or prevented completely. The women will learn how this can be done in the training. | * What are the main health problems in your community?<br>* Discuss this. Ask especially about women and children. (What do they die from, what are the most common sicknesses, what do the traditional healers do etc).<br>* What do you think should be done to improve these health problems?<br>* Discuss this.<br>* Explain that sickness can be prevented or made less |

dangerous by taking protective measures. After training they can help the clinic to improve the health status of their community.

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### 3. The Training Course.

The training will:

- Be in short 1-2 sessions.
- Last about 25-30 sessions all
- Include several topics they already know a lot about like pregnancy, delivery, child care.
- Be practical and simple, not involving books, reading, writing. Everyone can do it.
- Help them to improve their own skills, and teach them to pass on these skills to other women in the community.
- Include assessments during and after training and if the results are positive, a kit and certificate will be given to each woman.

* Explain when the training be and how long they will last.
* Discuss whether these times are convenient.
* Explain that they already know about a lot of the topics to be covered in the training course. Show them a kit and explain that they will be taught how to use the different items.
* Show them different teaching materials such as doll, placenta, cord and pictures.
* Explain that these will be used in training. Books and other complicated things will not be used. Explain that they will be assessed during and after the training but they should not worry about this because you will make the training very simple and keep repeating it until everybody understands.

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After training, each trainee will be called a Female Health Worker (FHW) and will have special voluntary work looking after women and children in the community.

If a woman does not understand something she should not be frightened to ask questions. Stress that everyone can do it.

* Explain that you are happy if they ask questions, because it shows they are interested in the training.
* Explain that if their assessments are satisfactory, they will be given a kit and certificate, and called Female Health Workers.

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**4. The Work of a Trained Female Health Worker (FHW).**

The Female Health Worker's work is voluntary and involves the following:

- Setting a good example.
- Performing regular home visits to women and children in her area in order to treat and refer health problems and to teach health topics.
- Attending deliveries and practising newly improved midwifery skills.
- Informing the clinic staff about pregnant women and newborn

* Tell the story of Kala Jan (see Reference Pages) and ask the women if they have any questions about the training or work of a FHW.



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babies.

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REFERENCE PAGES.

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TOPIC: INTRODUCTORY SESSION.

INTRODUCTION.

This should be a very relaxed session with you spending time getting to know the women and the things that are important to them, like their families. Tell the women something about yourself, your family background and your training and work experience. You could bring along a picture of your family to show them later in the training.

You should find out what the Afghan women think about health problems in their community, because their ideas may be very different from your own ideas. There are many reasons for these differences including the fact that the women have had no formal education and come mainly from rural areas. However, they have a great deal of knowledge from their own experiences and have learnt from other wise women in the community.

You need to find out their ideas on health problems in order to make your own teaching more relevant to them and their community.

Reassure the women that the training is not going to be too complicated for them. At first they are often quite anxious that the training will be academic and require them to know how to read and write or remember lots of information. Tell them Kala Jan's story to reassure them and encourage them to ask lots of questions.

Record the following in your book:

- Name of students (FHWs).
- FHW's husband's name.
- The group leader's names.
- The name of the refugee village.
- Mother tongue.
- Ethnic group.
- Address in Afghanistan.
- Number of year's work experience.
- Date training started, will be completed etc.

In this book you should also make a daily record of attendance, the topic taught and a short assessment on each FHW.

(Chapter 13...21)

ISLAMIC QUOTES.

Afghan women have a strong religious faith. Quotes from the Islamic books like the Quran and the Ahaadith will help them to understand your training. Here are some quotes which can be used in this session. You will find Islamic quotes in the reference pages of each topic and your should choose which ones you want to use in each session.

- Every Muslim man and woman must learn even if they have to go to China to do it. Hadith Sharif.
- The man who has dependants without enlightening them with advice is denied Paradise. Hadith Sharif.

STORIES.

You will find many stories, with Kala Jan as the main character, in the reference pages for the different topics. Afghans are natural story tellers themselves and love hearing stories about other people. You will find that these stories about Kala Jan, the newly trained FHW, will help you to get health messages across to the FHWs and their families. You may find telling these stories to the FHWs a little difficult at first, but you can practise first on your own family and friends to give your confidence. Do not be afraid to adapt the stories or make new ones up. These stories are just examples to give you ideas for stories of your own.

THE STORY OF KALA JAN.

This is the story of Kala Jan who is a grandmother and considered to be the wise woman in her family. She is happy to help anybody with their problems and has been well trained by her mother and aunts in the care of women during pregnancy and delivery. She takes great pride in her work but feels it could be improved further. The group leader has been talking to her son about a special training course, and she decides she would like to attend to improve her midwifery and child care skills.

Her family agrees and so she starts the training. At first she is very frightened because she has never been to school and

thinks she will not be able to understand the teaching. She is reassured when she finds that her trainer Rubina is very friendly and makes the teaching very easy and good fun. She tells lots of stories and gets the women to act in little plays about health problems in the community. Kala Jan discovers very quickly that she is a good actress and always gets to ply the part of the difficult mother-in-law which makes everybody laugh.

During the training Kala Jan is given a kit which she takes everywhere with her. She learns how to improve some of her old skills like cutting the cord and learns some new skills like making ORS for children with diarrhoea. She is introduced to the female clinic staff and learns when to send women and children to the clinic before they get too sick.
After lessons, which she attends regularly, she goes home and repeats everything she has learnt to all the women in her house. They especially like the stories she tells them.

At the end of the training Kala Jan is given an assessment, which is very easy, because it is just repeating everything she learnt in the training. She is very proud when they present her with the certificate and she has it framed to show to all her visitors. She tells everybody she is now a Female Health Worker and they must call her if they have any health problems.

She visits all the pregnant women and young children in her area regularly, treats their minor health problems and tells them to go to the clinic if they do not improve. She makes sure that the pregnant women and all children under 2 years go for their regular clinic visits. She asks people to call her early for delivery cases and gives the names of newborn babies to the clinic staff. She calls on all the women in her area to drink tea and talk about all the topics Rubina taught her. Every 1-2 months the clinic staff replace items from the kit which Kala Jan has used at deliveries.

Kala Jan is kept very busy and tells people that her work is like her prayers. "The Prophet (PBUH) was always telling people to look after the sick, handicapped and disabled. Even his unmarried daughter, Fatma, attended delivery cases. This is my jihad, protecting women and children by fighting sickness, while our men

are protecting use by fighting for our country."

Ask the women if they have any questions about the training. Explain that they will hear more stories about Kala Jan and her work as a newly trained FHW during the training.

TOPIC: KIT, REPORT FORMS AND A RESUPPLY SESSION.

(Chapter 13...24)

Time: 1 session.

OBJECTIVES.

1. For the FHW to learn that she must take her kit to each delivery, home visit, teaching session and resupply session.

2. For the FHW to learn how to use each item in the kit.

3. For the FHW to learn about reporting cases to the clinic and the resupply of items in the kit.

PREPARATION.

The FHWs should all have their own kit for this session. Arrange for member of the clinic staff, who is responsible for the resupply, to attend this session. The report forms are optional and each agency can choose their own method of reporting.

TEACHING MATERIALS.

Kit for each FHW.
Doll, placenta and cord.
Extra soap, thread and razor blades for resupply.
FHW report forms and pens.

INTRODUCTION.

Ask the FHWs about their work and families.

LESSON PLAN.

MAIN POINTS. HOW TO TEACH THIS.

(Chapter 13...25)

## 1. The Female Health Worker Kit.

The FHW should take her kit with her on the following occasions:

- All home visits.
- All labour cases.
- All teaching sessions.
- All resupply sessions.

If you feel that the FHWs are ashamed to carry their kits themselves to the teaching sessions, labour cases etc. you can suggest that a child from their house brings the kit or they can hide it under their chador. You should give them confidence and motivate them to at least bring their shoulder bag.

The kit is the FHW's responsibility and after using each item she should clean and dry it carefully and then kitat the resupply sessions to check that she is using it correctly.

* Explain the occasions when the FHW should take kit with her, so that she is always prepared for any situation. People can have babies or get sick at any time.
- Have you had any problems using your kit?
- Discuss the problem that some FHWs feel ashamed of people seeing them carrying the kit. Suggest they can hide it under their chador or they can use their shoulder bag instead.

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## 2. Contents of the FHW Kit.

Demonstrate the use of each item in the kit using the doll

- To contents of the FHW kit are shown in the

and cord. After demonstrating each item get one FHW to repeat your demonstration in front of the other FHWs.

table overleaf.

Get the FHWs to take it inturns to close their eyes, and pick one item out of the kit. They should then do a roleplay using a real baby or the doll, cord and placenta to show the use of this item.

---

| ITEMS IN THE KIT | USE OF EACH ITEM. |
|---|---|
| * Soap and Soap box. | * To wash hands. |

| | |
|---|---|
| Nail brush. | * To brush nails. |
| Nail cutters. | * To cut nails. |
| * New, unwrapped razor blades. | * To cut the cord. Should be thrown away after use. |
| * Roll of cotton thread. | * For typing 3 knots in the cord. Boil 20 minutes before use. |
| Fi e small cloth pieces. | * For Cleaning eyes, nose, cord and mouth. Boil for 20 minutes before use. Use as an example to show the pregnant women's family, so they can prepare a set for the delivery. |
| Plastic sheet. | * To be placed under the woman just before delivery. |
| Five large cloth pieces. | * For use as perineal pads and to check flow of bleeding. The family can prepare a set from clean, old clothes using these as an example. |
| Equipment for home demonstration of ORS | * For demonstrating how to make ORS. |
| One litre metal pot lid. | * For boiling the razor blade, cotton thread and small cloth pieces. |
| Shoulder bag. | * To carry all these items. |
| Optional item: *Cotton wool; flipcharts and posters for health education; report forms; pens. | |
| Items which are resupplied. | |

3. The Resupply Session and Report Forms.

The clinic staff organise * Explain what happens at



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this resupply session with the FHWs every 1-2 months. They will tell the FHWs which day to come.

This is what happens during a resupply sessions:

- The clinic staff check each FHW's kit.
- The FHWs are supplied with soap, blades and thread depending on the number of deliveries they have done.
- The FHWs hand their report forms to the clinic staff, and give names and addresses of delivery cases and any unreported pregnant women.
- The FHWs discuss any problems with their work.

resupply session. If a member of the clinic staff is present get her to explain instead.

* Show the FHWs the report form used by the agency responsible for their camp. Ask a few of them questions about their work over the last 1-2 months and show them how to fill hefo trm. Explain what each picture is, then point to one picture at a time and ask a FHW what it is.
* Role-play a resupply session with all the FHWs using their kits and forms.
* Give each FHW a report form to fill in over the next 1-2 months.
* Discuss with FHWs what they would do if they ranout of supplies before the next session and what they will do on their return to Afghanistan.

REVISION OF MAIN POINTS.

1. When should you take your kit?

2. What happens at a resupply session?

3. What would you do if you ran out of supplies before the next resupply session?

HOME VISIT.

The FHWs should explain the use of each item in the kit to other women in their family. They should start filling in their report forms each time they go on a home visit or attend a delivery.

REFERENCE PAGES.

TOPIC: KIT, REPORT FORMS AND A RESUPPLY SESSION.

(Chapter 13...30)

INTRODUCTION.

The kit is an important part of the work of a FHW. Some Afghan women are rather shy about taking their kits with them on home visits and to deliveries because they say that people tease them and call them doctors. Some FHWs treat their kits like precious items that must be kept hidden away and never used. Other use the soap for house guests and the razor blades for the men of the family to shave with. Many programmes training FHWs have faced these problems with kits. These problems are more common in programmes that present kits to FHWs at the end of training. It is therefore recommended that you give out kits early on in the training. In this way the FHWs get into the habit of using their kits at your training sessions and you can check how they look after the items and whether they take the kits to home visits and delivery cases. They should bring their kit to every training session and use it in the practical demonstrations. During home visits, they can use it for teaching other women.

The FHWs should clean each item carefully after use, dry it and replace it in the kit. Make a game out of learning the use of each item in the kit by getting the FHWs to close their eyes and then pick our one item each. They should guess what it is before opening their eyes again. Games like this will make your training sessions more fun, both for the FHWs and for you.

THE RESUPPLY SESSIONS.

Every 1-2 months the clinic staff will call the FHWs together to resupply certain items in their kits and report on the work they have been doing in the community. They will look at the kits to check that the items are all clean and present. Razor blades, soap and cotton thread are resupplied depending on how much has been used in the previous 1-2 months. The amount resupplied depends on the number of deliveries reported by each FHW. For example if the FHW reports she has attended 3 deliveries, then she, will get 3 new Razor blades. The clinic staff may check up on these reports by visiting a few families to confirm with them that the FHWs actually attended the delivery. Most FHWs do tell the truth however, and the clinic staff will not be check every delivery reported by the FHWs.

The clinic required the names of all delivery cases so that the female clinic staff can do a postnatal check on the mother and baby and start a growth chart and vaccinations for the baby. They will also want to know the names of all the pregnant women in each FHW's area. Some agencies ask the FHW's to fill in a report form on all the work they have done in the last 1-2 months, since the last resupply session. There are many different examples of such report forms.

These reports should at least include the information in the box below.

FHW report forms should include:

* Number of women sent to antenatal clinics.
* Number of women sent for vaccinations.
* Number of deliveries attended.
* Number of complications after delivery.
* Number of women and children dying.
* Number of children sent for vaccinations.
* Number of children treated for diarrhoea.

The FHWs are mainly illiterate and often have problems filling these report forms in. Give each of the FHWs a form and tell them how to use it. When they talk about their home visits and delivery cases during the training your can check that these report forms have been filled in correctly.

If at any time the FHWs run out of supplies before the next resupply session they can ask the pregnant women's family to supply all the items for the delivery. You should discuss this with the FHWs because this resupply problem will arise when they go back to Afghanistan.

**TOPIC: MICROBES AND HANDWASHING.**

Time: 1 session.

OBJECTIVES.

1. For the trainer to find out what the TBA believe about sickness and the traditional treatments they use.

2. For the TBA to learn how microbes cause diseases and when handwashing is important.

3. For the TBA to understand that they should set an example of cleanliness and healthy living in their community and teach this during home visits.

PREPARATION.

The TBA should use their kit for this session so that they can demonstrate the handwashing procedure. The trainer should have short nails, no nail varnish and clean hands.

TEACHING MATERIALS.

Kit (soap, nail brush and nail clippers).
Bowl, jug and water.
Two glasses.
Cotton wool.
Magnifying glass.
Salt.

INTRODUCTION.

Ask the TBAs about their work and families.
Ask about 2-3 home visits from the last session and revise the main points.

LESSON PLAN.

**MAIN POINTS.** **HOW TO TEACH THIS.**

**1. Traditional Health Beliefs.**

(Chapter 13...33)

Many Afghans think that most sickness is to one of these causes:

- God's will.
- Balance between hot and cold (food, medicines etc).
- Jinn (spirits).
- The evil eye.

* Ask each TBA to talk about one person in their family who has been sick, what they think this sickness was caused by, and how the person was treated.
* Discuss this.
* Show an interest in their methods of traditional treatment. Some are good, some are harmless and some are dangerous. You should decide which is which.
* Discuss the belief that sickness is God's will; use Islamic books and other religious books to explain this. For example the quote: "Health is the most important thing given to man by God after Islam."

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**2. Microbes Cause Many sicknesses.**

There are tiny worms, which we cannot see, that get into our bodies and make us sick. They

* Show pictures of microbes and microscope.
* Afghans think shinjay

are called microbes.

These microbes live everywhere, especially in dirty things. You can pick them up from faeces, feeding bottles, files, fingers, food and fluids. The blood of some people also contain these microbes.

If we eat, drink or breathe in these microbes or let them get into a skin wound, we will become sick unless our bodies are protected.

Remember, diseases are spread by:

* Faces.
* Feeding bottles.
* Files.
* Fingers.
* Food.
* Fluids.

(invisible worms) make teeth rotten. Use this as an example to explain microbes.

* Explain that microbes cannot be seen, yet they cause sickness, rather like jinn.

* Explain that microbes live everywhere. Point to hair, nose, skin, hands, nails, feeding, bottles, household items etc.
* Explain that faeces, feeding bottles and files are always dirty and fingers, food and fluids can be clean or dirty.
* Put a pinch of salt in a glass of water, and ask TBAs to look at it. Explain that the salt is like microbes, we are unable to see them in water, food and air but they are there.

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**3. How to Protect our Bodies from Being Attacked by Microbes.**

A person can be protected by THE PROTECTIONS.

THE PROTECTIONS.
* Cleanliness.
* Good diet.
* Vaccinations.
* Clinic visits.

* How can you protect your family from sickness?
* Discuss some traditional protections like tawiz (Quranic inscriptions on leather or cloth worn to ward off evil), kohl (black powder),special

| | |
|---|---|
| * Referral of danger signs. | prayers.<br>* Explain that some of these are good and can be combined with new protective methods |

---

**4. The Importance of Handwashing.**

| | |
|---|---|
| Soap kills these microbes. We must wash our hands with soap and water.<br><br>The TBA kit contains soap and a nail brush. The TBAs must do the following to keep their hands clean:<br><br>- Cut nails short.<br>- Scrub hands and nails with brush.<br>- Wash hands with soap and water.<br><br>The TBAs must also keep the hands, faces and bottoms of children clean. | * Quote from Quran on handwashing and cleanliness. Tell Hassan's story (See References Pages).<br>* Explain that soap kills microbes.<br>* Choose someone to wash her hands in some water, them pour it into a glass. Compare this with a glass of clean water and ask the TBA which one is clean?<br>* Explain that the dirt from our hands will contaminate anything we touch.<br>* Show the TBAs how to cut their nails, and scrub and wash their hands.<br>* Divide the TBAs into pairs and get them to repeat this using their own kits.<br>* Check that all the TBAs have short nails and clean hands.<br>* Ask one TBA to wash the hands and face of a child. |

5. **Important Times for Handwashing.**

Washing hands with soap and water frequently protects against illness.

**Always wash hands with soap and water:**

- Before preparing food.
- Before feeding children.
- Before eating.
- After working.
- After passing stools.
- Before delivering a baby.
- Before cutting the cord.
- After delivering a baby.

* When are the most important times to wash hands for protection against microbes?

* Explain the different times. Get the TBA to repeat these.

* Perform a role-play for each of these.

* Discuss handwashing before prayers. Explain this does not kill all the microbes because soap is not used. They can use friday(Jumma) prayers as a good time for cutting the nails of all their family members.

REVISION OF MAIN POINTS.

1. Zia has just had her first baby and she is very scared to take her outside in case she gets sick. What advice would

you give to Zia on protecting her baby from sickness?

2. Ahmed is 3 years old and he is always sick. His mother is well known in the community for not keeping a clean house.
What would you give to Ahmad's mother to help stop Ahmad getting sick all the time?

3. You want to prepare a meal for your family.
Show me what you would do before preparing the meat. (The TBA should demonstrate handwasing to you, using her kit).

4. What are the important times for washing hands?

HOME VISIT.

Tell the TBA that you will regularly check their hands during the training course to see if they are clean and the nail short. Explain that they can also check your hands. Ask the TBAs to talk to the men in their house about always having a supply of soap available. They should check the hands of all the women and children in their house to make sure their nails are short and their hand are clean. They should teach the women and older children in the house about the important times for washing hands. They should teach the women and older childcen in the house about the important times for washing hands. They should organise a nail cutting session every Friday for their family. Ask them to tell Hassan's story to their family.

**REFFRENCE PAGES.**

**TOPIC: MICROBES AND HANDWASHING.**

**INTRODUCTION.**

(Chapter 13...38)

Microbes are tiny animals which can only be seen with a microscope after staining them with special dyes. The TB microbe under the microscope looks like red rods. Afghans believe that an invisible worm (shinjay) decays their teeth, so use this example to explain microbes causing sickness. Most sicknesses have a mixture of causes including attach by microbes, poor diet, poor housing, hot weather, people's customs. Microbes are like jinn, they attack people when they are weak (young children, pregnant women, thin people). In this training the TBAs will learn how to prevent disease by making people stronger (good diet, vaccinations, clinic visits) and by reducing the spread of microbes in the community through clean practices (handwashing, latrines, rubbish disposal, clean wells, covering skin wounds etc).

Explain how diseases are spread by faeces, feeding bottles, flies, fingers, food and fluids. Explain the importance of handwashing with soap and water at certain times. Soap and water are friends in the fight against sickness. Explain that faeces, flies and feeding bottles are always dirty fingers, food and fluids can be clean or dirty. Although Muslims wash 5 times a day they do not usually use soap, and it is soap that kills the microbes on the hands. The mother uses her hands all the time for preparing food, feeding the children and if she does not wash her hands at these important times, she will be the main source of sickness within her family. The TBAs must explain to the mothers that they have a big responsibility to keep themselves clean for the health of their whole family.

In all topics covered in the training protective measures, called THE PROTECTIONS, to ensure good health will be repeated.

**THE PROTECTIONS.**

**THE PROTECTIONS** against sickness are:

* Cleanliness.
* Good diet.
* Vaccinations.
* Clinic visits.

* Referral of danger signs.

Get the TBAs to remember these protections using the fingers of one hand. Explain that these protections are like a helping hand (5 fingers) to keep women and children safe on the dangerous journey pregnancy, delivery and the first 2 years of life.

Following these messages will changing many traditional Afghan customs and the practices of the TBAs and their community. To help with this you can do the following:

1. Understand their traditional knowledge and practices.
2. Use this information when teaching each topic. For example you know the TBAs believe that jinn cause sickness, so use this to explain that microbes are like jinn. You know that they use tawiz to protect against sickness, so explain that vaccinations are like tawiz. Using examples familiar to them will make the health messages easy for them to understand. Think of your own teachers in the past, and the skills of the ones that changed your knowledge, attitudes and practices. Try to use the same skills.
3. Keep repeating these simple messages in every session. Tell stories and use role-plays with character;s from the community to make these health messages relevant to their own life experience.
4. Ask the TBAs about their home visits to see if they are using this new knowledge in their work with the community.
5. Set a good example yourself of healthy living (clean clothes and hands and short nails) and check to see if the TBAs are doing the same. Explain to the TBAs that they have to set a good example for their community so that people will imitate them. Remember that students imitate teachers they respect.

ISLAMIC QUOTES.

- There is no bigger sin than neglecting your dependants. Protecting your children and women from disease will save you from doom on The Day of Judgement. Hadith Sharif.

- God likes cleanliness. This is why he orders us to wash

almost half of our body 5 times a day.

- The cutting of nails is a trait of Fitrat. Hadith Ibn Imran. The Prophet (PBUH) cut his nails every Friday before Jumma prayers.

STORY ABOUT HASSAN'S FAMILY AND THE SPREAD OF DISEASES.

This is a story about Hassan and his family who were sick with diarrhoea.

Hassan tries to keep his family happy and healthy by working very hard at his job so that he can earn enough money to support them. Hassan's neighbour does not have a latrine and his children often pass stools outside Hassan's House. Hassan has noticed that the neighbour's children always have diarrhoea. A fly lands on a stool passed by one of the neighbour's children who has diarrhoea and then flies into Hassan's house and lands on the food that has been prepared by Hassan's Wife for the evening meal. They fly has hairy feet which pick up dirty things like stools. When it lands on the food with these hairy feet the food in Hassan's house also becomes contaminated with stool. This is like coming in from the street with our shoes covered in mud. We take our shoes off when we go into a house but a fly does not.

Hassan comes home from work and is very hungry. The whole family sit down to eat the meal. There is very little water left in the container and Hassan did not have time to buy soap on his way home from work, so the family do not wash their hand's. They enjoy their meal very much and after drinking tea and listening to the radio, the family goes to sleep.

In the middle of the night Hassan and 2 of the children wake up with severe pains in the stomach and diarrhoea. Hassan remains sick and cannot go to work for the next few days. His boss is not very happy with him and tells Hassan that if he gets sick again he will lose his job. Hassan lies on his sick bed thinking about what the TBA, Kala Jan, has told him about the cause of his diarrhoea. He decides to take action so that his family will not get sick again.

(Chapter 13...41)

Ask the TBAs what Hassan should decide to do to prevent his family getting sick with diarrhoea again (cover food, have enough soap and water in the house, wash hands before eating, advise neighbour to build a latrine or get family to pass stools in a safe place, cut nails on Friday etc).

**TOPIC: HOUSEHOLD CLEANLINESS.**

Time: 1-2 sessions

**OBJECTIVES.**

1. For the trainer to find out what the TBAs know and do about

household cleanliness.

2. For the TBAs learn how to protect their food and water and how to dispose of rubbish and stools safely.

3. For the TBAs to advise on food and water protection and safe rubbish and stool disposal, both in their own families and during home visits. ' For the trainers to check that they do this.

PREPARATION.

Try to visit all the TBA's houses at least once during the training and check for household cleanliness. This will make your teaching more appropriate. If possible, also try to talk to the group leaders to find our what problems the community have with cleanliness, and discuss how the TBAs can help.

TEACHING MATERIALS.

Model of well and latrine with house compound.
Domestic Sanitation Flipchart.
Latrine Use Flipchart.
Use the house compound in which the teaching is taking place to demonstrate the main points.

INTRODUCTION.

Ask the TBAs about their work and families.
Ask 2-3 TBAs about their home visits from the last session and revise the main points.

LESSON PLAN.

MAIN POINTS. HOW TO TEACH THIS.

1. **Food Protection.**

Food should be treated with respect. It can be protected by remembering the following:

- Clean hands with soap and water before slaughtering animals, handling, preparing or eating food.

- Clean surfaces for slaughtering, preparing and eating food. This includes clean tables, cutting boards, plates, cups, spoons, table cloths etc.

- Clean instruments for cutting, such as clean knives for slaughtering, cutting and eating food.
- Clean coverings for protecting food.
- Nothing dirty should be allowed to touch food. Files, rubbish, dirty cloths, insects, animals should be kept away from food by storing it in a safe place above the ground.

THE CLEANS

These are THE CLEANS:

* Clean hands.
* Clean surfaces.

* Give Islamic quotes on the importance of leanliness.
* Discuss Afghans problems in keeping houses clean (dust, lack of water and money).
* How do you protect food?
* Discuss this. In Islam, bread is treated with great respect. It is never placed directly on the floor and is always covered.
* The TBAs should know how diseases are spread.
* Discuss this.
* Explain that when they are slaughtering, preparing, storing and eating food they should follow the THE CLEANS.
* Can you remember them?
* Discuss this. Go through each of them in turn and explain how food is protected.
* Look at food protection in the house and discuss with the TBAs.

* Clean instruments.
* Clean coverings.
* Nothing dirty.

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## 2. Water Protection.

Water should also be treated with respect. It can be protected by:

- Clean hands for collecting and handling water.
- Clean surfaces. Clean cement floor around well.
- Clean instruments. Use a clean bucket and clean water pots.
- Clean coverings. Always make sure that water for drinking is covered with a clean lid or cloth. Always cover water wells with a clean lid.
- Nothing dirty should be allowed to touch water. Pass stools away from water ources, drawing water away from areas where people and animals wash.

Water from clean wells and taps is protected. Water from rivers, ponds andirrigation channels is not protected and needs special treatment to make

* Where do you get water from?
* Discuss this. Many Afghans get water from a protected source like a tap or well.
* Compare a good and bad well (real well, model or picture), and discuss how a bad well can be improved.
* If you take water form an open canal, how can you get the cleanest water?
* Use model or flannelgraph to work out where to draw water in relation to people washing clothes, animals bathing etc.
* Give Islamic quote on not passing stools near water sources nor passing urine in stagnant or running water.
* Go through each of THE CLEANS to discuss how water can be protected.
* Explain that if you drink water from an unprotected source such as a canal, river or pond, the water has to be boiled to make it safe especially for children.

is safe, especially for children. To be made safe, it must be brought to boil.

* Discuss this.

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**3. Rubbish disposal.**

Rubbish should be disposed of safely so that flies do not touch it and it does not touch it and it does not below away and contaminate food or water. It should be disposed of in one of these 2 ways:

- Collected in one place, and then burnt.
- Buried in a hole, and then covered with a layer of soil.

After disposing of rubbish, you must wash your hands. Each house has a rubbish tip and some communities may have a community pit.

* How do you dispose of waste water and rubbish?
* Discuss this. It is often just thrown outside in the street. Some houses have a special area for rubbish, and some communities have a pit.
* Take the TBAs to look at the compound and explain the 2 methods of safe rubbishdisposal.
* Quote Hadith Sharif: "Among the good deeds was removing dirt from the streets".
* Ask each TBA how she will dispose of rubbish after this session.

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**4. Stool disposal.**

Stools carry many dangerous microbes and worms which can contaminate food and water and make people sick. It is safer

* Where do the men, women and children dispose of stools in your house?
* Discuss this. Afghan

to put stools in a deep pit away from flies, food and water.

Pit latrines are the safest way to dispose of stools. Afghans like them because they do not violate purdah, they are convenient, and they reduce flies.

The M.C.H. should be asked to help build latrines. This will ensure that latrines are built properly and at a safe distance from wells.

**A latrine will only be safe if it is use properly.**

It should:

- Be used for stools and urine.
- Be used by the whole family, including the men, women and children.
- Have a lid which is replaced over the hole after use.
- Be kept dark with a curtain.
- Have a pipe with a fly mesh.
- Everyone should wash hands with soap and water after using latrine. An adult should clean the hands of children.

If there is no latrine, stools women use latrines, men go outside and children go anywhere.

* Explain the whole family should use the latrine, or bury stools in a hole and cover with earth.
* Look at a latrine (real, model or picture).
* Explain the ways to use it properly.
* Role-play: a mother teaching a young child how to use the latrine and then how to wash his or her hands.
* Tell the story of Abdullah and his health committee and then ask questions.



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should be buried in a place away from the house, paths and water sources. Stools should be covered with earth.

**REVISION OF MAIN POINTS.**

1. Mina's little boy is always getting diarrhoea. You visit her house to find out why the child is always sick. You notice that there are flies on the food.

(Chapter 13...48)

What advice would you give to Mina?

2. Dilawar is worried about the water from his well. It ever seems as clean as his neighbour's water.

What advice would you give to Dilawar to help him get cleaner water?

3. Shaheeda is making everybody in the community angry by throwing her rubbish out in the street. It is blocking the drains and attracting lots of flies and mosquitoes. Her neighbour complains to you.

What advice would you give to Shaheeda?

4. Sanga's family refuse to use their latrine because it smells and attracts flies. The group leader has heard that you are advising people on how to look after their latrines and asks you to visit.

What advice would you give Sanga?

HOME VISIT.

Ask the TBAs to visit one house where the children are always getting sick and inspect the compound to find out the cause of this. The TBAs should also advise their own families on any improvements that could be made. They can talk to the men in their house about community action by telling them the story of Abdullah and his health committee.

REFERENCE PAGES.

TOPIC: HOUSEHOLD CLEANLINESS.

INTRODUCTION.

(Chapter 13...49)

# CHAPTER XIV

# MANAGEMENT OF

# MCH POST - CLINIC

# CHAPTER XIV

## MANAGEMENT

I: Management of MCHO post/clinic:

1. What is management?
2. Why MCHO needs to be manager?
3. Why MCHO needs management training?
4. How to manage a Health post/MCH facility.
5. The role of positive attitude in managing a health post.

II: Concept of health team and working/coordinator with team members.

1. The Afghanistan Health System.
2. Job description:
   - P.H.D (Public Health Director)
   - M.C.H.O (Mother and child Health Officer)
   - R.H.O (Rural Health Officer)
   - B.H.W (Basic Health Worker)
   - T.B.A (Traditional Birth Attendant)
   - V.H.S (Volunteer Health Sister)
3. How to deal with situation as:
   - Non cooperative community
   - Conflict among team members
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III: Arrangement of MCH/clinic.

- Introduction
- Registration room and waiting area
- Antenatal room
- Under five room
- Health education room
- Vaccination room
- Drug store
- First aid and emergency room
- Administration room

IV: Arrangement of MCHO post.

1. How to manage MCHO post.
2. Time table:
   - Daily time table
   - Weekly time table

V: Records

1. Purpose of a written report.
2. Content and format of written report.
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   - Table of contents
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   - Introduction
   - Study finding/conclusions and recommendations.
   - Appendices
3. Monthly report.
4. Quarterly report
5. Annual report
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VII: How to prepare requests for:

- Budget
- Medicines
- Other supplies
- Breakage
- Where to send requests?

VIII: Care of health facility, equipment and supplies.

# CHAPTER XIV

# MANAGEMENT

## I: Management at MCHO health post/clinic

### 1. WHAT IS MANAGEMENT?

Management is working with people to get things done. Management has two parts: working with people, and getting work done.

You will work with supervisors, members of the health center team, and members of the community. You will be responsible for work dine at your health center. Your supervisors will expect you to do certain tasks. The community will expect to provide certain health services. To do these, you must manage your work carefully.

### 2. WHY MCHO NEEDS TO BE A MANAGER?

As a MCHO, you need to be a manager because you will run a health center and oversee health services for a community. You will have to plan and evaluate work. You will have to control the use of your resources. You will have to lead the health team.

### 3. WHY MCHO NEEDS MANAGEMENT TRAINING?

Management is a skill. When problems are simple, management is easy. But problems faced by MCHO are sometimes complex and difficult. You need management training to improve your management skills and to learn new management skills.

The MCHO job is often especially difficult during the first year at a health center. Much work needs to be done. The health center team will probably need training. Supplies

may be short. Communications may be poor. This first year is often frustrating and confusing. Management training helps prepare you to cope with this frustration and confusion. It teaches you how to organize your work and how to lead a health team. These skills make your job easier. With practice, you management skills will improve. You will become a better manager. You will get more work done and be a better team leader.

## 4. HOW TO MANAGE A HEALTH POST/MCH CLINIC

Managing the work at a health center involves three essential skills:

Planning the work

Carrying out the work

Evaluating the work

### Planning the Work

Planning work is not complicated or difficult. Before you shop for food, you decide what you need to buy. then you decide where to buy it. this is planning. You might waste time traveling to the wrong shops or you might buy the wrong supplies if you do not plan your shopping trip. then you would not have enough money to buy the supplies you really need. People waste time and money when they to plan.

MCHO who is in charge of a health center must plan. You cannot manage a health center well without planning its work carefully. Planning means thinking before acting. Planning means deciding:

What work needs to be done
Who should do the work

How the work should be done
When the work should be done

Planning means looking ahead at what you want to do and deciding the best way to do it. Planning is the route you take from where you are to where you want to go. For example, you may discover that many children in your area are malnourished. this is "Where you want to go." Planning is the way to get from where you are to where you want to go.

Figure

Planning shoul be based on facts. However, a lack of facts is no excuse for not planning. You must rely on your experience and judgement when planning without facts. Your experience can be especially helpful in these situations. But remember, good planning can never be based on guesswork, wishful thinking, or emotion. Base your plans on facts, experience, and good judgement.

Planning involves these four steps:

Identify health needs
Identify health activities to meet the health needs
Select the best activities
Decide how to carry out the activities

Identify health needs

The first step in planning is to identify the health needs in a community. You do this by completing a community assessment survey. This kind of survey will help you identify what health activities your health team should carry out in a community.

As a trained health worker, you will see many health needs. But for you to see health needs is not enough. People in the community must also see their own health needs. You must involve the community in identifying its health needs. People in the community must participate in the community assessment survey. When a community identifies its own health needs, the people are more likely to cooperate with you and the health team in carrying out health activities.

b. Identify health activities to meet health needs

The second step in planning is to identify the health activities that will help you to meet the health needs already identified by the community. Consider all possible activities. List the resources required for each activity. Resources are the people and materials available to do task. Time, knowledge, and skills are your most important resources. Other resources are the health facility team, the health center, equipment, supplies, community volunteers, the district health team, and the ministry of health.

c. Select the best activity

The third step in planning is to select the best health activities to carry out in the community. The best activities are those that use the fewest resources to meet the community's health needs.

Consider all the possible health activities before you decide which ones are the best for a community. The health needs and the resources in each community are different.

therefore, the health activities in each community will be different. Select the health activities that meet the particular health needs of a community.

Resources are always limited and health needs are always great. Never waste resources. Select the health activities that use the least amount of resources but still meet the community's health needs.

d. Decide how to carry out the activities

The fourth step in planning is deciding how, where, and when the health activities are going to be carried out and who is going to do them. Work with your team and people in the community to write a simple work plan and work schedule. You are responsible for making sure that everyone follows the work plan and the work schedule.

Carrying Out the Work

Patients, community members, and your health team will judge you on how well you carry out your work. these people often will be unaware of the training and planning you have completed. They will see only the result of your work. You manage both human resources and material resources whenever you work. When you manage an activity, remember:

Assemble your resources
Protect and conserve your resources
Use your resources

a. The first step in doing a job is to assemble your resources. Your ---------- are the people and materials available to do the job.

First you must assemble your human resources, the people who are going to do the work. this means motivating the

health team, motivating members of the community, and even motivating yourself. Second, you must assemble the materials you will need to do the work. for example, you must make sure that supplies are on hand and that equipment is in good working condition. This often means that broker equipment must be repaired or replaced and supplies must be ordered.

Figure

As the MCHO in charge of a health center you will be responsible for assembling the health team, the health center's facilities and equipment, ministry of health resources, and community resources. However, you should encourage the community health committee to assume primary responsibility for assembling community resources.

b. Protect and conserve your resources

The second step in doing a job is to protect and conserve your resources. Once the resources have been assembled, you must protect them so they will be available when you need them. Keeping health center equipment in good repair is a type of protection. Repairs protect the equipment from decay or damage. Other ways to protect your resources are proper handling, storage, and distribution of supplies to prevent misuse and theft.

Your must also protect your won mental and physical health and the health of your team members to ensure that your human resources will be available when they are needed.

The best preventive health practice is to maintain high morale and job satisfaction among team members.

Conserving resources means using resources wisely and avoiding waste. Asking your supervisor to do something that you can do is an example of a waste of your supervisor's time. doing some task that another team member can do is a waste of your time. Never waste time or any other resource.

c. The third step in doing a job is to use your resources to carry out the work. You will never have enough resources, so you must use your limited resources wisely. Select the best resources for achieving an objective. For example, a good use of resources would be sending a cleaner to the post office when a letter must be mailed during a busy clinic. Although the cleaner is busy with his work, you will use your resources best by letting his work wait rather than letting patients wait.

Another name for the best use of resources is coordination. Your must coordinate the work of the team and the use of materials to get the work done.

Evaluating the Work

You must continually assess what you and your health team are doing and how well you are doing it. this assessment is called evaluation.

An evaluation will help you see if you are making progress toward meeting health needs in a community. Evaluations will identify mistakes and give you an opportunity to correct them. You can learn from mistakes only when you recognize and evaluate them. Evaluation should be a positive, helpful activity. An evaluation should improve

the way you and your team work. A good evaluation should improve the way you and your team work. A good evaluation motivates team members to be more effective MCHO.

The four steps in evaluation are

Gather information
Analyze information
Identify needed improvements
Take corrective action

An evaluation is much like diagnosing patient's illness. MCHO gathers information about the patient and his complaint, analyzes this information, makes a diagnosis, and provides treatment. To evaluate work you will gather information about the work, analyze the information, identify needed improvements, and make changes to put these improvements into action. As the MCHO later checks to make sure his treatment was successful, you will continue to evaluate your work to make sure the changes have improved it. Evaluation gives you a way to improve your work and the work of the health team.

Evaluation is not difficult, but it requires judgement. Good judgement comes only with practice and experience. Your judgement will improve as you gain experience in managing a health center. Your evaluation skills will also improve at the same time.

## 5. THE ROLE OF A POSITIVE ATTITUDE IN MANAGING A HEALTH POST OR CLINIC

A positive attitude is an essential part of managing a health center. Positive thoughts and positive actions are essential if you are to succeed as the leader of the health team and as the manager of a health center. You cannot motivate yourself or others if you do not have a positive attitude. Without motivation, work does not get done.

You probably already have a positive attitude. This positive attitude will enable you to be a successful MCHO. Your positive attitude will waver at times, so you will sometimes have to work to maintain it. You must maintain a positive attitude because your attitude influences the attitudes of your patients and your fellow workers. Remember that maintaining a positive attitude is a health team leader's most important skill in managing a health center. Begin now, while you are still in training, to practice your positive attitude.

Figure

You have learned to plan work, use resources, and evaluate work. You have also learned the importance of a positive attitude. Remember that all these are closely related. You cannot do good work without first planning the work, nor can you plan without evaluating the work. A positive attitude helps you in all these activities. Use them together to successfully manage a health center.

Afghanistan Health System

Afghanistan's largely rural population (80%) is scattered among more than 20,000 villages and towns mostly ranging in size from a few hundred people to a few thousand people. Even before the war the rugged terrain and brashly climate made routine travel to the large cities for health care impossible for most people. The primary health care infrastructure must reflect the geographic and demographic realities of Afghanistan. It must also balance the needs of the population against the constraints of health man-power availability and the need to build a system which is financially sustainable.

The foundation of primary health care pyramid in rural Afghanistan is the community health worker (C.H.W) or Basic Health Worker (B.H.W). Most of the health problems which cause death and disability in Afghanistan can be handled at the village level by BHWs working at basic health post. BHW training capacity is being built to train and support a ratio of at least one BHW for every 5000 people. Though in less density populated areas one BHW may serve 500 people. BHWs are taught to provide basic preventive community health education on topics such as water, sanitation and personal hygiene. They also taught to provide essential care for common potentially life threatening diseases. Finally they are taught supportive role in the immunization program.

For supervision of these BHWs we trained one Rural Health Officers (RHO) for each district. Beside supervision of BHW he is responsible to implement preventive and health education programs, logistical support of BHW and submitting report about the health program in district to PPHD.

The next level after Basic health Post in PHC pyramid is Basic Health Center. Basic Health Center are staffed by one physician or to four mid-level Health Workers and serve a large community than that served by Basic Health Posts (5000-3000) people. These Basic Health Centers are usually for the subdistrict or district level services. Basic Health Centers don't have patient beds or

laboratory services. They are expected to serve as center for facility based immunization campaigns.

In the district or subdistrict level we also have one MCHO (Maternal Child Health Officer) who is working in MCH center and is responsible to provide prenatal deliveries and post natal car diagnosis and treatment of common diseases of women and childrer and Health Education for prevention of diseases, sanitation and personal hygiene.

Above the Basic Health Center is the comprehensive Health Center Ideally a comprehensive Health Center will be staffed by a medical doctor one or two advanced mid level health workers and several mid level health workers. Comprehensive Health will serve as the next line of referral for Basic Health posts and Basic Health Centers. In general they should be equipped with three to five patient beds and small field laboratory. These Comprehensive Health Centers will be the major government healtl facility in less populated districts which cannot support a hospital. Comprehensive Health services tuberculosis control, malaria control and disability services. Programs will differ for one center to another, depending on local diseases pattern the, health needs of the community and the availability of the trained personnel. Comprehensive health Center will also pla an important role in supporting the cold chain and immunization activities.

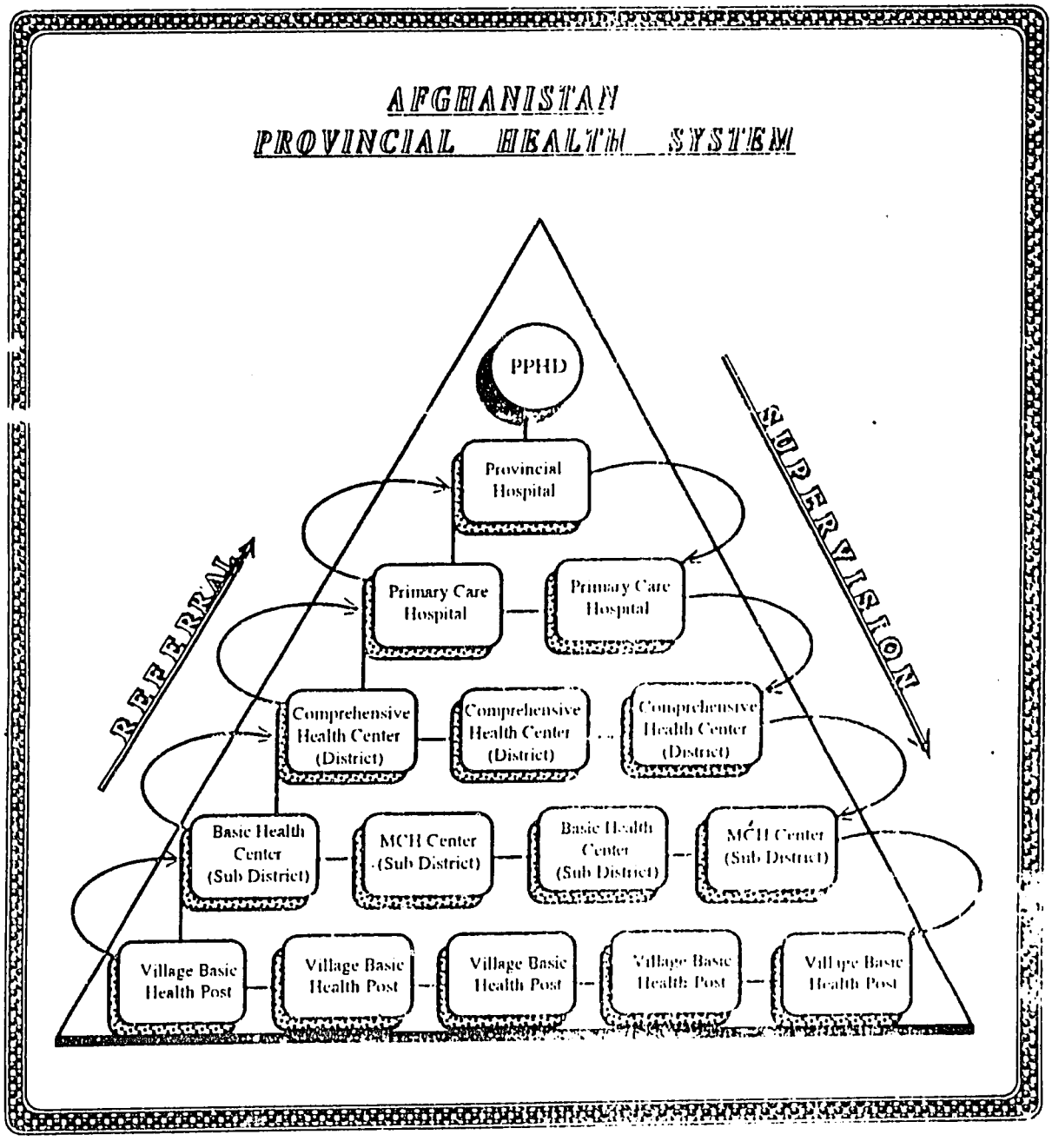
The next level in the PHC pyramid is the Primary care Hospital, Which is expected to serve one to four district depending on population and geography Primary Care Hospitals should be staffe by one to three medical doctors and are expected to have ten to twenty patient beds, a field laboratory and portable x-ray capability.

Primary Care Hospital will serve as the main referral point for patients from comprehensive and Basic Health Centers. In addition staff at these hospitals should provide support for MCI T.B, Malaria, Disability or other special programs provided at Comprehensive and Basic Health Centers in the area.

The next level is the provincial hospital which will offer specialized medical services most major surgical services freeze point capacity, health worker training, expanded laboratory services prosthesis, fabrication and other more specialized services will be provided by provincial hospital. Provincial hospitals are expected to have up to 50-100 beds. The facility is designed to cover at least one province.

The regional health hospital is designed to cover 3-6 provinces and has (50-200) beds. The services offered will include a more advanced technology with regards to laboratory and radiological services.

Afghanistan Provincial Health Pyramid



Provincial Health Director's

Job Description

a. Position:

Provincial Health Director

b. Responsibilities:

Provincial health director as the highest health authority at the province level has the following responsibilities:

- Taking part actively on the rehabilitation of health system in the province. He should follow the health master plan designed by the Ministry of Public Health.
- Managing and supervising the health services in the community.
- Extending the health services up to the level of the community health needs and requirements.

c. Specific responsibilities:

1. Planning and assessing of provincial health activities.
2. Managing and coordinating of provincial health activities.
3. Proposing for the appointment of required personnel.
4. Specifying and determining fund for different health programs. He should also follow the process of the budget specified for the programs.
5. Proposing new and essential health projects.
6. Administration and technical supervision of all health programs in the province.
7. Proposing for the provision of required medical and other material.
8. Managing of provincial health department.
9. To report the health activities regularly and to collect information regarding the progress of health programs.
10. Creating a standardized system for getting information about health problems in the health program.

11. Conducting workshops and seminars about administration and supervision of provincial health program.
12. Conducting of refresher training courses and supplying the teaching materials.
13. Planning for the provincial health training program.
14. Submitting of quarterly health progress report.
15. Visiting of different areas in the province in order t supervise health activities.

d. Qualifications

Provincial health Director must be an MD with at least 3 years of experience.

e. Language

Provincial health director should be able to speak and write both in Dari and Pushto fluently. He should also be able to talk and write English.

f. Report Receiver Office

General manager for health Services Department

g. Field health workers in the province

All health workers in the province

h. Source of health Plan

Master plan of Ministry of Public Health.

i. Job requirements

Provincial health director should be the resident of the same area and he should have at least 3 years of work experience in the same province.

MCHO's Job Description

Refer to page 1.

RHO Job Description

The basic job of the RHO (male) will be to manage primary health care at the woleswali level, under the supervision of the provincial public health directors. "Managing PHC at the woleswali level" has the following major components:

1. Technical supervision of all BHWs in the woleswali.

   Implementation of preventive and health education programs (such as Immunization, environmental health and so forth) in collaboration with health centers or clinics in the woleswali.

2. Making sure that public health policies of the PPHD are appropriately carried out in his woleswali.

3. Submitting reports on a regular basic to the PPHD from eac MOPH-supported clinic or health center. as will as his own reports regarding health in the woleswali.

4. Support Primary Health Care (PHC) through more effective health education, MCH and prevention activities by BHWs an by clinics, health centers and hospitals in the district.

5. Support Logistics for BHWs and clinics and for prevention programs in the woleswali.

6. Close involvement with the community and with other (non-health) sectors, including organizing communities to becom more involved in health.

7. Supervision of preventive and public health programs for clinics and health centers (but not curative care).

B.H.W's Job Description

It is the duty of a BHW to take care of the health activities of the area and to take part on the development of his environment. What the BHWs are doing, should not exceed. What they have learnt in the training course. BHWs are dealing those health problems which are common and very easy to do.

They are not allowed to interfere those problems which are out o their knowledge. Therefore they should refer the bigger problem to the higher health centers.

BHW knows that he cannot work alone, so he should work in a medical team, he should always seed their team leaders advises concerning the problems.

BHWs should encourage the community to take part actively in the health programs and propose the suitable ways for solving the existing health problems in the community.

BHWs should avail the existing sources for the improvement of th community life.

Ensuring the health to the community is not only related to health program but also related to other sectors of life i.e. culture, agriculture, public services, transportation and communication. Keeping in view the health problems in our country, BHWs have the following jobs to do:

1. Carry out social health activities.
2. Patient's care.
3. Management and administration of health post.
4. First Aid.
5. Common Clinical problems.
6. Child health care.
7. Mother's health care.
8. Development health services in the community.

FHW Female Health Worker (Trained Dai) Job Description

The FHW is trained to deliver health care and to teach other women within her family group. Her role is to:

- Visit the pregnant women in her family group regularly to advise on health care during pregnancy.
- Motivate pregnant women to attend the Basic Health Unity (BHU) for antenatal care.
- Encourage the women to be immunized against tetanus.
- Be able to carry out a safe normal delivery.
- Recognize early signs of complications in pregnancy and labor and after delivery, and refer to the BHU Lady Health Visitor (MCHO) or VHS as necessary.
- Manage any conflictions until referral is possible.
- Improve care of the mother and baby after delivery and undertake regular home visit to them.
- Act as a health educator and motivator for: immunization of children under 2 years of age, personal hygiene and environmental sanitation.
- Manage and give advice on common conditions such as diarrhoea, fever and respiratory infections and refer when necessary to the BHU.
- Share her new skills and knowledge whenever possible with other women.

Volunteer Health Sisters Job Description

1. Personal hygiene and environmental sanitation motivation.
2. Prevention, referral and treatment of diarrhea.
3. Prevention, referral and basic treatment of ARI.
4. Nutrition motivation for child growth and use of Mid-Upper Arm circumference tape.
   a. Breast feeding
   b. Weaning
5. Immunization motivation for women and children.

6. Safe Motherhood advice and motivation.
   a. Pre/post-natal and delivery advice and motivation (Nutrition in pregnancy, warning signs in pregnancy, trained birth attendant, sterile cord-cutting).
   b. Child-spacing through breastfeeding.
7. Accident Prevention and First Aid.

Potential tasks to be added later in specific location:

8. Malaria prevention and referral.
9. Leprosy prevention and referral.
10. Tuberculosis prevention and referral.
11. Helping disabled people.
12. Dental care.
13. Mine Awareness.



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DISCIPLINARY ACTION

Guidelines for Disciplinary Action

Use the following guidelines in handling disciplinary action:

Get all the facts about the problem before taking disciplinary action.
Act early. Do not let small problems grow into big ones and spread to other employees.
Be fair and consistent in your handling of employee problems.
Do not act in haste. Do not act in anger.
Do not warn a person who is angry or excited. Wait until he is quiet and calm.

Give the employee adequate opportunity to explain how he sees the problem. Start with existing attitudes and understanding when attempting to change an employee's behavior.

When criticizing a person, compare his performance to ministry standards. Do not compare him with another person. An employee with often feel resentful and insure if he is compared unfavorably with another worker.

Use disciplinary action as a way to assist the employee. Help him plan ways to correct his behavior.

Advise the employee of his right to use the formal grievance procedure if he does not agree with your disciplinary action.

Follow up your disciplinary action to ensure that the employee has changed his behavior and to show your interest in the employee.

Pay special attention to the employee's behavior and performance during the probationary period.

Always discuss disciplinary problems in private.

When disciplinary problems go beyond early verbal warnings document all actions in writing in the employee's confidential personnel file.

Levels of Disciplinary Action

There are five levels of disciplinary action which you may use depending on the seriousness of the problem you are dealing with

| | |
|---|---|
| level I | Verbal Warning |
| Level II | Warning Interview |
| Level III | Written Warning |
| Level IV | Suspension |
| Level V | Transfer or Dismissal |

This procedure provides a written record of the progressive attempts made to correct an employee's behavior. In the case of more serious problems you may start the process at a level highe than the verbal warning level.

GRIEVANCES

Guidelines for handling a Grievance

You should inform employees that they have a right to file a grievance if they think they are being treated unfairly. In mos cases, you can resolve a grievance in a conference with the employee. If not, the employee may appeal to a higher level. follow these ten steps in handling a grievance:

Hold a confidential meeting with the employee at the earliest possible time.

Hear the complaint. Let the person speak. Do not interrupt or argue.

Try to determine if there is a hidden cause for the complaint

Repeat the employee's statement and write it down. Ask him if these notes are correct.

Set a time when the answer will be given. Do not promise the employee anything at the time of this first interview, except that his grievance will be considered seriously and he will be given an answer.

Gather needed acts. Check policies and regulations. Check past practices and decisions. Consult with the district supervisor. Reach a decision.

Hold a second meeting with the employee. Explain the decision carefully. Take all the time needed. Answer all the questions the employee may have.

If the employee does not age with the decision, and it is impossible to settle the grievance at this step, inform the employee that he as the right to appeal it to the next highest level.

Give the employee a copy of the Personnel Grievance form. Ask him to fill it out and return it.

example, by recognizing and coping with differences of opinion, you get new ideas about the team and about the health services. This often leads to improvements in how the work is done and in how the team functions. Conflict can be good for the team. Conflict can lead to changes and improvements. However, conflict that continue without being resolved lead to strees and bitterness among team members. Unresolved conflicts will eventually destroy teamwork. Your responsibility as team leader is to help team members resolve conflicts as they occur.

Team members will always have differences of opinion. Your role is not to change their opinions. Everyone is entitled to his own opinion. Your role is to resolve conflicts so team members can



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work together. They may keep their differences of opinion, but they must work together and function as a team.

## RESOLVING CONFLICT AMONG TEAM MEMBERS

Conflicts are disagreements. Whenever people work together, disagreements will occur. As the team leader, you will have to deal with these conflict and resolve them so the team can continue to function.

The best way to deal with conflicts is to prevent them. Good communication helps prevent conflicts. Social and recreational activities can help to prevent conflicts. Good planning and a positive attitute also help prevent conflicts. But differences of opinion will occur and some of these differences will lead to conflicts within the team.

The first step in resolving a conflict is to recognize and understand it.
The typical causes of conflict within a health team are:

Lack of resources
Poor planning
Badly organized work place
Personality conflicts

The personality conflicts are invertible, and you should never underestamate the power of personality differences to cause conflict within your team. The way to deal with personality conflicts is to patiently listen to the team members involved. Allow them to express their problems. Understand the conflict form their viewpoint. Your role as team leader is not to decide who is right or who is wrong. Your role is to resolve the conflict so that the team can go on functioning.

However, you can help team members tolerate weaknesses and imperfections in each other. You can encourage them to communicate and to avoid criticizing each other. Your goal is t resolve conflicts so that the team can go on functioning. You

may decide to do this in the presence of other team members or i
private. But take care to maintain the honor and diginity of al
team members when resolving a conflict.

As a leader of a health team, you should understand that some conflicts within a group is natural, and that it can have positive effects.

MCHO Job Description

a. Job:

Mother and Child Health Officer.

b. Duties:

- Antenatal care, natal care, post natal care.
- 0-5 child health care.
- Training of FHW/TBA and VHS.
- Family planning services.
- Management of MCH Health Post.

c. Other responsibilities:

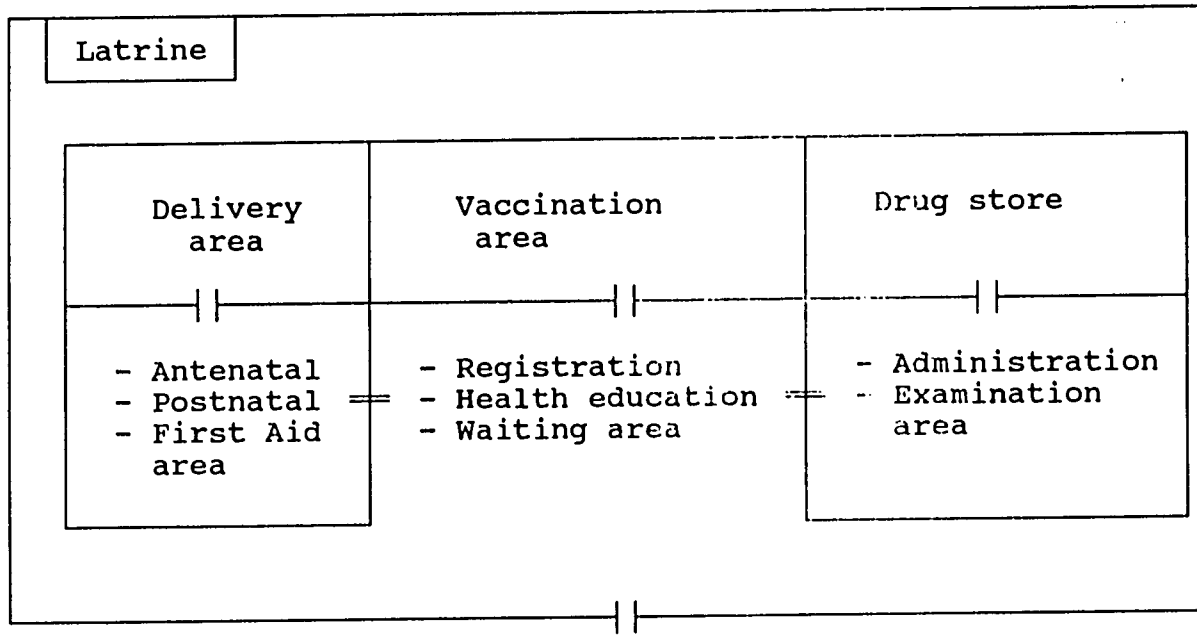
- Community health and its relations with community.
- Normal pregnancy.
- Abnormal pregnancy.
- Antenatal care.
- Antenatal care.
- Normal delivery.
- Abnormal delivery.
- Normal Postnatal.
- Abnormal Postnatal.
- 0-5 child health care.
- Vaccination.
- Common clinical problems.
- Family planning.
- Training of TBAs.
- Management.

d. Qualifications

- MCHO should at least be graduated form 10th class.
- Language understanding should have ability of speaking and writing in Dari and Pushtu.
- Reporting to:
  Provincial health director.
  Organ
  Supervision area.
  BHW, VHS, TBAs.

## III. Arrangement of MCH clinic

Organizes of Health center MCH clinic




Registration and waiting area:

- All patients who come to the clinic should be registered on arrival. The name of the patient and card number should be written in the registration book and a colored slip of paper with a number on it should be given to each patient. The colored slept of paper will direct the patient to the appropriate section of the clinic and the number given will help the clinic staff to determine in which order the patients should be seen. The colored slips of paper should be collected by the staff as the patient is seen and all of the colored slips should be returned to the registration room at the end of the day.



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- No patient should go directly to see the doctor unless that patient looks very ill and in that case the registrar should take the patient directly to the doctor.

- If there is a shortage of staff in the clinic, it is suggested that the registration room only be open for a few hours in the morning so that the person doing the registering can be free to do other things in the clinic after the registration is closed.

- If possible, the area outside the registration room where patients wait should be covered or shaded in some way so that patients are not standing in the sun.

- Waiting areas outside each clinic area should be used for group health education or cooking demonstrations.

Health education room

Health Education Topics for prenatal

- Introduction to the clinic, explaining the importance of pre-natal care.
- Nutrition during pregnancy.
- Danger signs during pregnancy.
- Common discomforts of pregnancy (home and local treatments)
- Preparation for labor and delivery.
- Care of the newborn, including breast feeding.
- Postpartum care.
- The delivery, including the use of "cord kits".
- Birth spacing.

Some suggested topics for group health education in the area of the under 5s clinic included:

- Diarrhea, dehydration, and rehydration.
- Sunshine and ricketts.
- Vitamin A deficiency.
- Cleanliness and child care.

- Breast feeding
- Food hygiene and sanitation
- Weaning and nutrition.
- Immunization.
- Preventing childhood accidents.

Health Education:

- The importance of Immunization
- Where to obtain DPTP and BCG for children.
- The illnesses of diptheria, whooping cough, tetanus and T.B.

Health Ecucation:

- Nutritious foods
- Good weaning foods
- Sanitary food preparation
- Prevention of diarrhea
- Breast feeding

The Nutrition

- In MCH clinics with sufficient staff it was suggested that a nutrition room be included. Its activities would include:
- Intensive one-on-one health education with mothers of malnourished children.
- Oral rehydration of children with diarrhea.

<u>The Doctors Office (Administration room)</u>

- The activities should include:
- Examination of patients referred by the clinic staff.
- Promotion of clinic activities through work with the community, community leaders, mallahs, provincial health officer, Preventive Medicine Department (PMD), other departments in the Ministry of Health and elected officials
- Monitoring the health status of the community.
- Promoting the control of communicable diseases and the prevention of epidemics.
- Supervision of the whole clinic.

- Supervision of the health education program.
- Supervision of training programs and the training health center staff.
- Supervising the staff in developing training materials.
- Monitoring the activities of the various departments and solving problems.
- Provide monthly reports to the provincial Health Officer concerning clinic activities.
- Assist the MOH in immunization campaigns and mass media health education campaigns.
- Promote clinic outreach programs (such as health education programs in the mosque).

Prenatal Room:

- Monitoring or the health of the mother and fetus throughout pregnancy, including physical examination, abdominal palpation, blood pressure, listening to the fetal heart, measuring the weight and height of the mother, checking for anemia.
- Screening, identification and referral if necessary of women with risk factors.
- Filling out the pre and post natal card in order to mointor the health of the womean and fetus drring and after pregnancy.
- Provide patient with routine iron and folic acid during pregnancy and the post natal period.
- Monitor the patients hemoglobin and examine the urine for protiein and sugar.
- Toward the end of pregnancy, provide each petient with a "cord kit", containing a new razor blade, sterile cord ties and cotton swabs soaked in an antiseptic solution.
- Following delivery provide inforamtion concerning birth spacing.

Under 5s room:

- The activities in the Under 5s Clinic should include
- Growth monitoring of all children under five years of age, using a scale and "road to healt card" or an arm circumference band. Children with any degree of malnutrition should be seen more frequently in the Under 5s

Clinic, receive individual counceling concerning nutrition and be referred to the nutrition room.

- Examination of newborn babies.
- Examination of children under 5.
- Screening and referral of "at risk" children.
- Treatment of common illnesses.
- Treatment of common skin diseases.
- Oral rehydration therapy.
- Referral of very ill children to the doctor.

The Immunization Room:

- All MCH clinics will provide tetanus toxoid immunizations to women.
- The Preventive Medicine Department of the MHO will provide BCG and DPTP to children, through their immunization program.

Drug store:

Orderly stocking is an essential part of drug management. Drugs received are recorded in a stock ledger or on stock-cards.

Storing drugs

1. Most drugs must be kept dry, cool and away from light. a cupboard is best fcr these conditions. When possible keep tablets in air-tight tins and screw-top jars.

2. Labe each bottle or tin clearly.

3. Stick a red star or similar mark on all bottles or tins with an expiry date this year. Use them first.

4. Keep dangerous drugs in a locked cupboard with a special issuing register.

Figure

Need text about making daily, weekly, monthly timetable.

| DAILY TIME TABLE OF M.C.H CLINIC | | | | | | | |
|---|---|---|---|---|---|---|---|
| I | II | III | IV | V | VI | VII | VIII |
| 1. Cleaning clinic area.<br>2. Regestration. | - Health Eduction. | - Examiniation of under Five children.<br>- Examination of Mothers (Antenatal, postnatal etc)<br>- Weighing of under five children. | - Treatment of under five children and women.<br>- Refferal of children and women. | - Sterlization of Injection neddles and other instruments.<br>- preparation of sterlized swabs and pods. | - M.C.H<br>Laboratory Investiga-tion. | Supervision of Regrignatea of<br>Immunization program. | Supervision of medicine and equipments |

| WEEKLY TIME TABLE OF M.CH CLINIC | | | | | |
|---|---|---|---|---|---|
| Saturday | Sunday | Monday | Tuesday | Wednesday | Thursday |
| 8:00 - 9:00<br>Supervision of Drugs store and Vaccins. | Health education Registration | Health education Registrtion | Health education Registration | Health education Registration | Health education Registration |
| 9:00 - 12:00<br>Health education Registration | M.CH clinic | M.CH clinic | M.CH clinic | M.CH clinic | M.CH clinic |
| 12:00 - 1:00<br>L U N C H | | | | | |
| 1:00 - 2:00<br>M.CH clinic | Vaccination | Vaccination | Vaccination | Vaccination | Vaccination |
| 2:00 - 3:30<br>Vaccination of children and pregnant women | Home Visits | Visits community health worker (F.H.W) | Visits community V.H.S supervisors | Visits progress of extinding program of immunization | |

Needs explaination

There is need to specifiy the hours.



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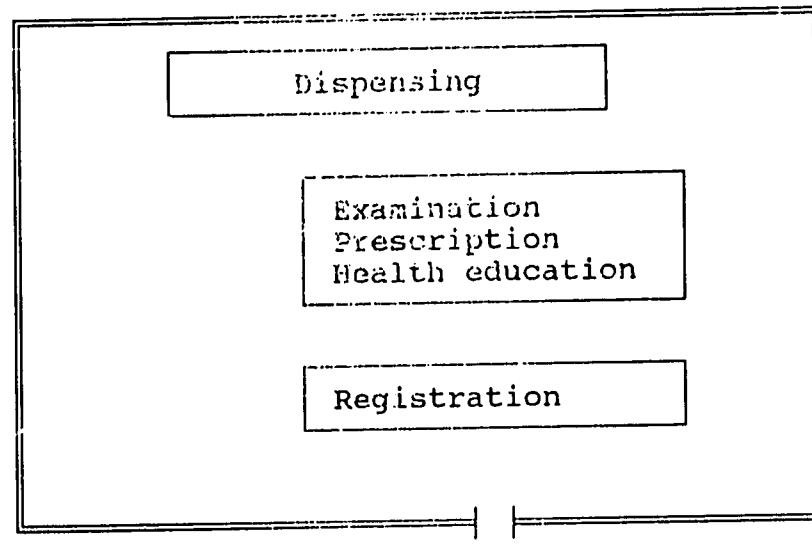
| Monthly Timetable of M.C.H clinic | | | | | | |
|---|---|---|---|---|---|---|
| Saturday | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday |
| 1.<br><br>Supervision of drugs store. | 2.<br><br>Supervision of Vaccins. | 3.<br><br>Compile Reports for last month. | 4.<br><br>Submit supply order. | 5.<br><br>Submit order for vaccin and Review with supervisor. | 6.<br><br>Meet with your supervisor | 7. |
| 8. | 9.<br><br>Meet V.H.Ss | 10.<br><br>Meet community | 11.<br><br>Meet F.H.W | 12. | 13.<br><br>Meet with District Health committee. | 14. |
| 15.<br><br>Meet with workers in Extending programm of immunization | 16. | 17. | 18.<br><br>Follow up of chronic diseases | 19. | 20. | 21. |
| 22. | 23. | 24. | 25. | 26. | 27. | 28. |
| 29. | 30. | | | | | |

Arrangement of MCH post




Organization of facility + equipment

Need to distinguish for clinic + post

- Registration
- Health education
- Examination
- Prenatal, Under 5
- Role in vaccination
- Drug storage (see MCH clinic section)

Daily timetable of MCH post (same as clinic?)
Weekly timetable of MCH post (same as clinic?)
Monthly timetable of MCH post (same as clinic?)

PROCEDURES AND FORMS FOR RECORDING INFORMATION ON HEALTH CENTER RECORDS

Keep records of your work and the work of the health team. You and your supervisor use these records to identify health problems in the community and to plan health services to meet those problems. The health center records are:

Patient Register
Labor Chart
Follow-up Book
Diary of Health Activities

Patient Register

Use the Patient Register to record information about all health center patients. The Patient Register provides a permanent record of all patients and the health services that they receive from you and your health team.

DISTRIBUTION: Keep the Patient Register in the health center at all times.

INSTRUCTIONS: Fill in the date, and the patient's name, address, age, and sex. After you have seen the patient, write the diagnosis and list the quantity of drugs dispensed. If you received money from the patient, enter the amount in the Fees collected column.

If you care for patients in their homes or elsewhere in the community, enter their names in the Patient Register when you return to the health center. If you refer a patient, write the diagnosis and "referred" in the Diagnosis column. Se the sample Patient Register.

Record prenatal, postnatal, well baby, or child spacing visits in the diagnosis column. Also record deliveries in the diagnosis column. If the person making any of these types of routine visits also has a health problem, record that problem in the

diagnosis column. If the person has more than one problem, record the primary diagnosis.

When the health center is busy, the auxiliary nurse or the midwife may register the patients, dispense the drugs, and collect the fees. In this case they will copy the diagnosis on to the Patient Register and dispense the drugs based on what you have written on the Patient Card.

Patient register

(chart figure)

Labor Chart

Use the Labor Chart to record the progress of a woman in labor.

DISTRIBUTION: Keep Labor Charts in a file in the health center for a year after using them.

INSTRUCTIONS: Fill in the history of the woman in labor on side one of the chart. Fill in the name of the woman and place of delivery at the top of side two of the chart.

Observe the woman during labor. Record the information called for on the chart each time you examine the woman. After the delivery, record the time and date of birth, weight and sex of the baby, time the placenta was delivered, APGAR score and newborn assessment, and a brief description of any complications of delivery. Then sign the chart and write your title.

Transfer the date of delivery, condition and weigh of the infant, and complications of labor and delivery to the fourth panel of the mother's Maternity Card.



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REPORTS:

## 1- PURPOSE OF A WRITTEN REPORT

A written report of finding, conclusions, and recommendations is the end product of your management analysis study. A report of a management analysis study. A report of a management analysis study describes the system that you have studied and presents your recommendations for change. The report will serve as the basis for decision on how the system should be improved. The report is a permanent record that can be used as a reference by different people at different times. Senior level officials will read the report. You must therefore take special care in writing it.

In writing the report, give special attention to:

- Understanding who will read and use the report
- Presenting information as objectively as possible
- Using a writing style, format, and tone that generate interest rather than boredom
- Using words that are specific and commonly used, while avoiding technical words and jargon.

## 2- CONTENT AND FORMAT OF A WRITTEN REPORT

Whenever possible, you should use a standard format for written reports.
This will make it easier for you to prepare the report and also easier for the readers to understand the content of the report. Your report should include the following elements.

- Letter of Transmittal

A letter of transmittal explains why the report was prepared, who authorized it, and who will use it. A letter of transmittal is usually only a few paragraphs and never more than one page.



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- Title Page

A title page gives:

The title of the report

Your name and position

The department, agency, or organization under whose sponsorship you conducted the study

The date the report was prepared

Whether the report is a draft or a final report.

- Table of Contents

The table of contents lists the main headings and sub-headings of the report by page number. It also usually includes a listing of tables, charts, illustration, and appendices.

- Summary

This is a summary of the findings, conclusions, and recommendations contained in the report. A summary should give the reader a good overview of the results of the study in about five to ten minutes of reading.

- Introduction

The introduction is the first section of the report. It includes the purpose of the study and a description of the management systems improvement process of which the study is a major first step. It should also describe the management support system under study and explain how the system fits into the overall primary health care development effort.

- Study Findings, Conclusions, and Recommendations

The findings and conclusions are a step-by-step description of the system studied. They should be presented in the order in which events occur in the daily operation of the system. Recommendations, usually in the form of suggested alternative solutions, should appear at the end of each section of the findings and conclusions to which they relate.

- Appendices

The first appendix should be a narrative description of your study methodology. This will be a summary of the Description of Study Methods form in your management system workbook. The second appendix should be a bibliography of the key records and written materials that you used in conducting the study and

preparing the report. This will be a summary of the List of Documents Reviewed form in your management system workbook. The third appendix should be the list of persons that you contacted during the process of conducting the study, including their job titles and place of work.

This will be a summary of the List of Persons Interviewed form in your management system workbook.

You may add additional appendices as needed. These would include information that is helpful in understanding the report but not appropriate to include in the main report because of content or length.

**3 - MONTHLY REPORT:**

Submit HIS returns as soon as possible after the end of the month to the district.

The forms required routinely are:

1. T5 :Consolidated monthly clinic returns.
2. T10 :Environmental health monthly return (submitted by Health Assistant).
3. T11 :Schools Medical Inspection Report.
4. T99 :Child spacing returns.
5. ZEP1:Vaccine order forms.

These forms should reach the District health Information Officer by the 5th of the following month.

A copy of each form submitted should be kept on file at the BHS, along with the tally sheets and out-patient register. Remember it is your data and should be used in monitoring the work you are doing.

**4 - QUARTERLY REPORTS:**

You should also submit a short written report every 3 months to the DMO.

This report should not be long and should repeat previous in reports only where really necessary. For example if the BHS has a water supply problem you do not need to give a full description of the problem every time. Instead state



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boldly something like "Water supply .. still drawing from the well in the grounds. NO Progress". Concentrate on changes that have occurred since your last report. Emphasis achievements as well as problems. The following is a suggested outline for quarterly reports.

**5 - ANNUAL REPORTS:**

Every year you must submit a more comprehensive (annual) report. Emphasis progress and problems of achieving targets in the health plan. Attach copies of charts and praphs in propriate.

## MCH CLINIC INITIAL SUPPLY

| | | | |
|---|---|---|---|
| Category: | Initial clinic Supply | | |
| | Clinic Initial Supply | 1 | Attachment A |
| | Dai Kits | 32 | Attachment B |
| Category: | Nurse Kit | | |
| | Midwifery kit | 1 | |
| | (includes Midwifery Manual) | | |
| Category: | Health Education Material | | |
| | Set of 6 Flip charts | 1 | |
| | Set of 6 Silkscreen Posters | 1 | |
| Category: | Health Records | | |
| | Antenatal/Labour/Postnatal Record | 300 | |
| | Child Health Chart | 300 | |
| Category: | FHW Training Items | | |
| | FHW Trainers Steel Box and Contents | 1 | |
| | and also include ... | | |
| | FHW Trainer Manual | 1 | |
| | Register | 1 | |
| | FHW Shoulder Bags | 16 | |
| | FHW Certificates (to be prepared) | 20 | |
| Category: | MCH (PREGNANCY TESTING ) LAB. KIT | | |
| Category: | Additional Pharmaceutical Supplies | | |
| Category: | Delivery Packets | [illegible] | |

Management Sciences for Health / Peshawar
MCHIN -MIT

| Product Identification Number. | Total Number Counting Units | Generic Name | Counting Unit Specifications | Cost in Pakistani Rupees. | Cost in US $ |
|---|---|---|---|---|---|
| 1.203 | 60 | LIDOCAINE 2% SOLUTION | AMP 10ML | 240.22 | 8.06 |
| 6.201 | 2,500 | METRONIDAZOLE 200MG TABLET | TAB 200MG | 635.00 | 21.29 |
| 6.311 | 1,000 | AMPICILLIN 250MG CAPSULES | CAP 250MG | 1160.00 | 38.90 |
| 6.501 | 2,000 | NYSTATINE VAGINAL TABLET | TAB 100,000 IU | 2000.00 | 67.07 |
| 17.621 | 200 | ORAL REHYDRATATION SALTS FOR 1000CC | POW FOR 1 LITRE | 470.00 | 15.76 |
| 18.104 | 400 | DESOGESTREL+ETHINYLESTRADIOL | TAB 28 PER PACK | 10800.00 | 362.17 |
| 22.001 | 80 | ERGOMETRINE MALEATE 0.2MG/ML | AMP 0.2MG X 1ML | 179.84 | 6.03 |
| 28.401 | 1 | FETOSCOPE | PIECE | 22.00 | 0.74 |
| 28.511 | 1 | SPECULUM VAGINAL GRAVES, SMALL | SMALL SIZE | 60.00 | 2.01 |
| 28.512 | 1 | SPECULUM VAGINAL GRAVES, MEDIUM | MEDIUM SIZE | 42.00 | 1.41 |
| 28.513 | 1 | SPECULUM VAGINAL GRAVES, LARGE | LARGE SIZE | 45.00 | 1.51 |
| 29.525 | 1 | PREGNANCY TEST STRIPS | BOTTLE OF 70 STRIPS | 1500.00 | 50.30 |
| 29.603 | 10 | ARM CIRCIMFERENCE TAPE | PIECE | 100.00 | 3.35 |
| 31.223 | 1 | APRON UTILITY PLASTIC | 900MM X 1MM | 125.00 | 4.19 |
| 31.225 | 1 | SHEETING, PLASTIC. | 910 X 1800MM | 75.00 | 2.52 |
| 32.314 | 1 | OPERATING SCISSORS BLUNT/BLUNT | STRAIGHT 14.5CM | 18.00 | 0.60 |
| 32.333 | 1 | EPISIOTOMY SCISSORS, ANGULAR BRAUN | 145MM SS | 32.00 | 1.07 |
| 32.432 | 1 | FORCEPS, STERILIZER UTILITY | 200MM VAUGHN SS | 33.50 | 1.12 |
| 32.451 | 1 | FORCEPS SPONGE HOLDING RAMPLEY | 25CM | 47.00 | 1.58 |
| 32.502 | 1 | TOWEL HOOK. | 430 X 500MM | 45.00 | 1.51 |
| 32.692 | 1 | MOUTH MUCOUS EXTRACTOR | FOR [illegible] | 45.00 | 1.51 |
| 32.905 | 1 | ALUMINUM CASE FOR MIDWIFERY KIT | ALU. [illegible] | 200.00 | 6.71 |
| 33.133 | 2 | SPONGE BOWL STAINLESS STEEL | 6" [illegible] | 69.50 | 2.33 |
| 33.141 | 1 | KIDNEY TRAY METAL | 8 1/4" [illegible] | 65.00 | 2.18 |
| 33.173 | 1 | SOAP-BOX, 2-PIECE | 95x65x[illegible], PLASTIC | 6.00 | 0.20 |
| 33.501 | 1 | NAILBRUSH FOR SURGEON, NYLON HAIR | 8CMx2.5CM | 4.50 | 0.15 |
| 36.115 | 2,000 | CONDOMS STERILE | PKT 4 | 3900.00 | 130.78 |
| 41.124 | 2 | HAEMOGLOBINOMETER PIPETTE | WITH PIPETTE 2 TUBE | 70.00 | 2.35 |
| 41.125 | 1 | HAEMOGLOBINOMETER SET | HAEMOMETER SMALL | 250.00 | 8.38 |
| 41.624 | 1 | BEAKER 50ML | GLASS PIECE | 19.50 | 0.65 |
| 41.626 | 1 | BEAKER 500ML | GLASS PIECE | 42.90 | 1.44 |
| 41.704 | 2 | UROSTIX | BOTTEL OF 100 STP | 516.00 | 17.30 |
| 41.705 | 1 | ANTI-COAGULANT FOR BLOOD | 1000 CMS(EDTA) | 823.00 | 27.60 |
| 41.738 | 3 | ETHANOL,96 % | SOL 200ML | 156.00 | 5.23 |
| 41.755 | 1 | HYDROCHLORIC ACID CONC. | SOL 200ML | 28.00 | 0.94 |
| 41.765 | 1 | BLOOD LANCETS(FEATHER) | 200 PCS | 85.00 | 2.85 |
| 41.805 | 6 | LAB.RECORD BOOK,LINED | BOOK 100 PAGES | 255.00 | 8.55 |
| 41.912 | 1 | FLASH LIGHT,PREFOCUSED | W/2 DRY CELL 1.5V | 150.00 | 5.03 |
| 99.123 | 2 | MARKER BLACK | PERMANANT, PIECE | 28.00 | 0.94 |
| *** Total *** | | | | 24342.96 | 8[illegible].33 |

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Management Sciences for Health / Peshawar
MCH-KIT

| Product Identi-fication Number. | Total Number Counting Units | Generic Name | Counting Unit Specifications | Cost in Pakistani Rupees. | Cost in US $ |
|---|---|---|---|---|---|
| 1.203 | 60 | LIDOCAINE 2% SOLUTION | AMP 10ML | 240.22 | 8.06 |
| 6.201 | 2,500 | METRONIDAZOLE 200MG TABLET | TAB 200MG | 635.00 | 21.29 |
| 6.311 | 1,000 | AMPICILLIN 250MG CAPSULES | CAP 250MG | 1160.00 | 38.90 |
| 6.501 | 2,000 | NYSTATINE VAGINAL TABLET | TAB 100,000 IU | 2000.00 | 67.07 |
| 17.621 | 200 | ORAL REHYDRATATION SALTS FOR 1000CC | POW FOR 1 LITRE | 470.00 | 15.76 |
| 18.104 | 400 | DESOGESTREL+ETHINYLESTRADIOL | TAB 28 PER PACK | 10800.00 | 362.17 |
| 22.001 | 80 | ERGOMETRINE MALEATE 0.2MG/ML | AMP 0.2MG x 1ML | 179.84 | 6.03 |
| 29.525 | 1 | PREGNANCY TEST STRIPS | BOTTLE OF 70 STRIPS | 1500.00 | 50.30 |
| 29.603 | 10 | ARM CIRCIMFERENCE TAPE | PIRCE | 100.00 | 3.35 |
| 36.115 | 2,000 | CONDOMS STERILE | PKT 4 | 3900.00 | 130.78 |
| 41.124 | 3 | HAEMOGLOBINOMETER PIPETTE | WITH PIPETTE 2 TUBE | 105.00 | 3.52 |
| 41.624 | 2 | BEAKER 50ML | GLASS PIECE | 39.00 | 1.31 |
| 41.626 | 1 | BEAKER 500ML | GLASS PIECE | 42.90 | 1.44 |
| 41.704 | 2 | UROSTIX | BOTTEL OF 100 STP | 516.00 | 17.30 |
| 41.738 | 3 | ETHANOL,96 % | SOL 200ML | 156.00 | 5.23 |
| 41.755 | 1 | HYDROCHLORIC ACID CONC. | SOL 200ML | 28.00 | 0.94 |
| 41.765 | 1 | BLOOD LANCETS(FEATHER) | 200 PCS | 85.00 | 2.85 |
| 41.805 | 6 | LAB.RECORD BOOK,LINED | BOOK 100 PAGES | 255.00 | 8.55 |
| 99.123 | 2 | MARKER BLACK | PERMANANT, PIECE | 28.00 | 0.94 |
| *** Total *** | | | | 22239.96 | 745.81 |

Management Sciences for Health / Peshawar
DAIIN -MIT

| Product Identification Number. | Total Number Counting Units | Generic Name | Counting Unit Specifications | Cost in Pakistani Rupees. | Cost in US $ |
|---|---|---|---|---|---|
| 17.621 | 2 | ORAL REHYDRATATION SALTS FOR 1000CC | POW FOR 1 LITRE | 4.70 | 0.16 |
| 32.205 | 1 | RAZOR BLAD DOUBLE EDGE LOCAL.QUAL | PKT OF 5 | 3.02 | 0.10 |
| 33.349 | 24 | COTTON STRING GLAZED LEATHER SW,555 | PIECE,IFT | 0.48 | 0.02 |
| 33.361 | 24 | GAUZE PADS,"NON-STERILE", 4"X4" | 1 PIECE | 11.96 | 0.40 |
| 33.501 | 1 | NAILBRUSH FOR SURGEON, NYLON HAIR | BCMx2.5CM | 4.50 | 0.15 |
| 33.503 | 4 | MINI SOAP BAR | 30 GMS BAR | 5.44 | 0.18 |
| 95.503 | 1 | LARGE PLASTIC BAG | PIECE | 5.00 | 0.17 |
| *** Total *** | | | | 35.10 | 1.18 |