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MCH IN SERVICE MANUAL (ENGLISH)

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CHAPTER 1

HEALTH CARE PROBLEMS IN AFGHANISTAN

TEACHING OBJECTIVES

1. To introduce participants and trainers
2. To review the workshop schedule
3. To review the organization and content of the in-service material
4. For the participant to identify and discuss what things they hope to learn from the in-service training
5. For the participant to write down what role the workshop can play in the development and planning of MCH Clinics
6. To understand the mortality and morbidity rates of Afghanistan and compare them to other countries in the South Asia region.
7. To identify the main medical causes of death among women and children
8. To review the Child Survival technologies and Safe Motherhood interventions as approaches to improving Maternal and Child Health.

TRAINERS SKILLS

Good communication with participants
Be able to explain workshop goals
Be able to explain the main idea of the topics
Teachers should convince the students of the exceptionally high level of morbidity and mortality of mothers and their children
To improve cultural problems and knowledge level of the society
To explain the MCH reporting system and role of it

ACTIVITIES

1. Each person introduces himself one by one
2. Distribution of time table and teaching materials
3. Demonstrate and explain different statistics by using transparnseries, posters, film
4. Discussion

DURATION

One day

TEACHING MATERIALS

Handouts, Transparnceries

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INTRODUCTION.

IN THE NAME OF ALLMIGHTY ALLAH.

DEAR BROTHERS OF MCH INSERVICE TRAINING STUDENTS, ASSALAMO ALAIKU

MINISTRY OF PUBLIC HEALTH OF AFGHANISTAN ISLAMIC GOVERNMENT HAS DONE LOT OF HEALTH SERVICES INSIDE AFGHANISTAN IN LIBRATED AREA DURING A SHORT PERIOD. IN ADDITION, WITH THE HELP OF ALLAH MINISTRY OF PUBLIC HEALTH (MOPH) OF AFGHANISTAN ISLAMIC GOVERNMENT (AIG) WOULD EXPAND ITS HEALTH SERVICES FOR THOSE GROUPS OF PEOPLE WHO ARE IN THE NEED OF HEALTH SERVICES.

TRAINING OF THOUSANDS DAIS IS ONE OF THE MOST GOALS OF MATERNAL & CHILD HEALTH DEPARTMENT OF (MOPH) SO AS TO SERVE MOTHER'S HEALTH.

WE COULD SAY THAT OFFERING OF HEALTH SERVICES TO MOTHERS & THEIR CHILDREN INSIDE AFGHANISTAN IS ALSO A KIND OF SACRIFY JEHAD.

IT IS NECESSARY TO TRAIN THOSE SISTERS & MOTHERS WHO ARE DEMANDING TO OFFER HEALTH SERVICES FOR THEIR PEOPLE (MOTHER & CHILD) INSIDE AFGHANISTAN AND SUPPORT OTHER HEALTH WORKERS. THEREFORE (MOPH) HAS ESTABLISHED A COURSE WHICH IS NAMED MATERNAL & CHILD HEALTH OFFICE (MCHO). STUDENTS OF THIS COURSE WHO ARE FEMALE AND STUDYING FOR ONE YEAR WOULD BE SHORTLY GRADUATED FOR FIRST TIME AND THEY WOULD OFFER HEALTH SERVICES IN DIFFERENT AREAS OF AFGHANISTAN.

MOPH AND MCH DEPARTMENT ARE REQUESTED FROM ALL THE STUDENTS OF MCH AND PARTICIPANTS OF MCH INSERVICE TRAINING THAT THEY ARE SUPPOSE TO SERVE THEIR SISTERS, MOTHERS & THEIR INNOCENT CHILDREN, AFTER, WHEN THEY FINISHED THEIR TRAINING & GOT THE MCH FACILITIES.

H DEPARTMENT INSPITE OF MCHO TRAINING IT WAS ABLE TO ESTABLISH SOME MCH FACILITIES INSIDE AFGHANISTAN THROUGH THE TRAINING OF THOSE FEMALE & MALE HEALTH WORKERS (MEDICAL DOCTORS & MIDLEVELS) WHO INTEND TO SERVE THEIR PEOPLE (MOTHERS & CHILDREN) IN THEIR COUNTRY DURING THIS TRAINING. THESE HEALTH WORKERS WERE ACQUINTED WITH THOSE HEALTH PROBLEMS WHICH ARE VERY COMMON IN AFGHANISTAN NO - A - DAYS IN ORDER TO KNOW THAT HOW CAN THEY GOOD MANAGE THESE PROBLEMS. WE HAVE NAMED THIS COURSE AS MCH INSERVICE TRAINING (M.C.H. I.T.) AND WERE CONDUCTED FOR AT LEAST ONE MONTH. THEREFORE THIS DEPARTMENT HAS DECIDED TO MAKE A MANUAL FOR BOTH LEVELS (DOCTORS & MIDLEVELS) BUT FOR DOCTORS THIS MANNUAL HAS SOME DIFFERENCES.

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THE FOLLOWING TOPICS HAS BEEN CHOSEN FOR MCH INSERVICE TRAINING MANNUAL.

1. MATERNAL & CHILD MORTALITY & MORBIDITY RATE & THE PREVENTIVE WAYS.
2. AFGHANISTAN HEALTH SYSTEM & PRIMERY HEALTH CARE.
3. HOW TO BE A GOOD TEACHER.
4. COMMUNITY DEVELOPMENT.
5. DAIS TRAINING.
6. HOW TO MANAGE A CLINIC.
7. SHORT INFORMATION REGARDING THE MCH HEALTH REPORTING SYSTEM.
8. HEALTH EDUCATION.
9. UNDER 5 OLD CHILDREN CARE.
10. WOMEN CARE.
11. TO ACQUINT THEMSELVES WITH THE LIST OF INSTRUMENTS & MEDICINES

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I. TOPIC. INTRODUCTION + ETHOLOGY OF MCH AND THE PREVENTIVE WAYS

1. OBJECTIVES:

a) Participants and trainers will introduce themselves.
b) The schedule of workshop will be reviewed
c) The organization and contents of materials will be reviewed.
d) Participants of the workshop will identify and discuss what things they hope to learn from the workshop.
e) Understand the mortality and morbidity rates of Afghanistan and compare them to other countries in the South Asia region.
f) Identify the main medical causes of death among women and children.
g) Review the Child Survival technologies and Safe Motherhood interventions as approaches to improving Maternal and child health.

2. Skills:

Good carer with students
Be able to explain workshop goals
Be able to take the main idea of the topics.
Teachers should encourage the students to the high level morbidity and mortality of mothers and their children.
To improve cultural problems and knowledge level of the society.
To explain MCH Reporting system and role of it.

3. Activities:

Introducing himself one by one
Distribution of time table & teaching materials.
To demonstrate & explain different situations by using transparnseries, posters and films
Discussion

4. Duration: One day.

5. Reference:

* Conference on safe motherhood: South Asia March 1990.
* O'connor, Ronal, edition, Managing Health systems in developing areas
* Experiences from Afghanistan lexington Masachusetts lexington books (WBC
* Perinatal determinations & Maternal Health and child survival
AW.Brann Jr MD WHO collaborating center in perinatal & health services resource maternal & child health.

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ISSION I. DIMENSIONS OF THE PROBLEM.

'o understand the dimensions of the health situation in Afghanistan . It is helpful to review available statistics and make comparisons with other developing countries, especially those in South Asia. Let a start with the Maternal side of MCH.

1. MATERNAL MORTALITY RATIO. Can anyone define "maternal mortality rate" ? It is a measure of how many women die each year as a result of becoming pregnant. MMR is written as -

$$\frac{\text{\# of deaths of women of reproductive age}}{\text{100,000 live births.}}$$

It is an indication of population a health status, of women's status in the society, and an indicator of development. Did anyone read in this morning a paper that 400 women died last night in South Asia while you were sleeping. In the last 12 hours 400 women (300,000/year) in S.Asia died in what is supposed to be a passage in life of joy and celebration, the birth of a child.

Transperancy 1. (# live births in the world, # maternal deaths: Why was nothing written about these victims, or the 800 who died in the 24 hours previous? Because they are poor, powerless, and voiceless (not represented). In rural areas of South Asia, of every 2 women that die, 1 will have died because she became pregnant. The important concept here is that high maternal mortality in poor countries is the result of 2 reasons: (1) high fertility and (2) the high risk of dying each time a women becomes pregnant. In fact, Afghan refugees camps report the highest total Marital Fertility rate recorded at 13.6 live births (compared to 8.3 pre-war, MSH 1977 Survey). In the last several years, the tragedy of maternal death has begun to be acknowledged as "the silent epidemic" . Led by WHO, UNICEF, UNFPA, UNDP, the issue is important not only in humanitarian terms, i.e., for the value of a life saved, but for the causal relationship it has with the survival of the offspring, as well as social and economic development (In a study in Bangladesh of five children born to mothers who died, 90% also died within the first year.

Transparency 2. (% of LBW): South Asia also has the highest % of Low Birthweight Babies When you compare this transparency with the last transparency, you can see a simple relationship between maternal health, and child health Birth weight is a result of many factors, but maternal nutrition prior to and during pregnancy is a major one.

The Maternal Mortality rate for Afghanistan is probably among the highest in the world In 1977, a survey done in Afghanistan

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Estimated that the maternal mortality rate was 640/100,0[illegible] births. No one has done a recent survey, but there are factors which have probably caused this rate to increase. What do your think are some factors which caused an increase ?

What are the major causes of maternal death? There is no current information on the direct causes of death among women in Afghanistan , but it is likely the same as in countries surrounding Afghanistan, . There are :

Pre-eclampsia and Eclampsia
Obstructed labour and Ruputre of the Uterus
Puerperal Sepsis (Infection)
Self-Induced or Illegal Abortion.

There are also indirect causes , like anemia, heart disease or diabetes, which are present before pregnancy, but which are made worse during the pregnancy and contribute to the death.

Mortality figures do not tell the full extent of the suffering (morbidity) caused by untreated complications in pregnancy and labor. For every women do dies, about 16 women suffer damage to health which affect the rest of their lives. Examples include puerperal hypertension, puerperal cardiac arrest, acute prolapses of cervix, infertility, exacerbated anemia, and pelvic inflammatory disease.

The five main direct causes of maternal mortality alongwith anemia cause 80% of maternal deaths. Many of these causes are preventable at the MCH Clinic level and if they are not preventable at least they can be detected and referred.

In summary, maternal health determines peri-natal mortality. So, strategies to decrease child deaths must be complemented with other strategies for decreasing maternal deaths.

Maternal Health Strategies: There is an excellent article by Dr. Brenn of W.H.O on 'Perinatal Determinants of Maternal Health and Child Survival. Please read it, for it outlines clearly 6 keys strategies for programme planners and implementers . These 6 keys strategies are :

1. Health Information System.

2. Tetanus Toxoid for Women.

3. TBA Training.

4. Child spacing.

5. Define and strengthen the referral system.

6. Promote public health education and epidemiological infc tion.

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CHILD SURVIVAL: Let us now turn to the "CH" part of MCH. causes of death among children under five are different m the causes of death for mothers and neonates. Likewise, the ategies for improving child survival are somewhat different.

can define Infant Mortality Rate ? It is:

$$\frac{\text{the \# of infant deaths (under age 1)}}{\text{1000 live births}}$$

1975, a National Demographic Survey was carried out in hanistan which showed the Infant Mortality Rate to be /1000.

can define Child Mortality Rate? It is:

$$\frac{\text{the \# of deaths among children under age 5}}{\text{1000 live births.}}$$

1975, National Demographic Survey showed this rate to be /1000 or approximately 1/3 of all children dying before age According to UNICEF's 1980 "State of the World's Children" hanistan has the highest Under-5 Mortality Rate in the World you think that the # of deaths among children in Afghanistan increased in the last 15 years? Why?

re have been no Morbidity/Mortality surveys done in hanistan since the war began. However, the Project is now iating surveys in 3 provinces - Wardak, Takhar, and ahar.

of Halves: From statistics gathered throughout the develop- world, an interesting patterns has come to view. It has bee ied the "Law of Halves". The Law of Halves states that, of the children who die before reaching age 5, approximately of them die before reaching age 1. Of the children who die re reaching age 1, approximately half die before reaching 1 of age It is expected that of the children who die withi first month of life half of them die within first week of . One can only guess whether the law continues down to the t day of life If you look at the Under-5 for Afghanistan compare it with the IMR, you see this law holds true.

does this importance of this law for you, as planners/ emb ters of health services ? This relationship is key or eting your interventions. Is it better to focus on under-15 r-5 or earlier ?

Causes of Death. What are the main causes of child deaths anistan ?

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MSH 1977 Survey in 3 Provinces:

Jinns.	21 %
Diarrhea.	19 %
Respiratory.	14 %
Fever.	9 %
Swelling.	9 %
Measles.	5 %

CDC 1985 Survey in Refugee Camps:

Diarrhea.	39 %
Measles.	24 %
Unknown.	21 %
Malaria / fever.	21 %
Neonatal/tetanus.	9 %

Main Causes of Morbidity:

Greenbook data 1987:

Diarrhea.	32 %
Worms.	11 %
Conjunctivities.	8 %
Dehydration.	4 %
Cold	

Afghanistan has the same pattern of child death's as most developing countries. The benefit for planners/implementers is that thousands of scientific studies and medical publications have been written on these same health problems. Directors of health services inside Afghanistan can use the lessons learned from other countries experiences.

As mentioned earlier, many governments around the world have undertaken a "Child Survival Revolution" to reduce child mortality . The child survival revolution tries to reduce child mortality by concentrating of 4 selected disease categories which comprise the vast majority of deaths:

Diarrhea
Acute Respiratory Infections
Infectious diseases
Malnutrition (which underlies and contributes to illness as well as causing death)

I'd like to discuss with you the documented effectiveness of the relatively simple technologies that exist for these 4 major child killers We will raise questions about how you might implement MCH programmes for Afghanistan using these technologies.

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I. Diarrhea, leading to dehydration is the major killer of children in Afghanistan, as in most developing countries.

Slide-Dhm1: In developing countries, especially tropical countries, a child will have an average of 2 attacks of diarrhea each year, or nearly 10 attacks of diarrhea before age 5. Some children have 10 attacks in 1 year.

Slide-Dhm2: Probably, every day somewhere in the world, between 14,000, and 5,000 families bury a child who has died of diarrhea. Most of these lives could have been saved if health workers had taught the parents how to manage this condition. How do you think we can give families in Afghanistan information on how to prevent a death from diarrhoea? Who is the target audience for giving information or prevention of diarrhoea or treatment?

Slide-Dhm3: What is the cause of death when a child dies from diarrhoea? (dehydration-infection may cause the diarrhoea but the infection does not cause death). Most dirrhea is self-limiting and medicines do not help . ORT is expected to be effective in 80-90% of episodes of watery diarrhea.

Slide-Dhm24: ORT means electrolyte and water replacement with sugar-salt solution and continued feeding.

Slide-Dhm9: This is a packet of full WHO formula. For Afghanistan, do you think it is better to promote packed solution or salt and sugar? What are the pros and cons?

Slide-Dhm21: Malnourished children tend to have longer duration of diarrhea. However, ORT (fluid plus food) actually shortens the duration and volume of stool less even for a malnourished child. Health workers try to stop the diarrhea with drugs that actually prolong the illness.

long as diarrhea lasts 2 things happen:

1. Food is malabsorbed
2. Bacteria in the lower intestine invade the upper intestine causing further secretion and intestinal damage.

So it is better to give ORS and feeding than just ORS alone because ORS and feeding have a longer term effect on survival.

Slide-SS11: Except for a few nations with small, easily reachable populations, ORT has not been implemented anywhere in sufficient depth or duration to have a major measured impact. Egypt is the 1st nation with a sizable population (50 million) to build an ongoing national program. This slide is taken in a dehydration centre, which were set up in hospitals to teach mothers how to care for the sick child. This series of slides simply demonstrate the powerful effect of ORS

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Slide 8:00a.m.: Mother at 8 as with dehydrated child. Child shows sunken fontanelle, sunken eyes, lethargy.

Slide 9:15 a.m.: Spoon by spoon.

Slide10:00: Remarkable improvement in 1 hr. Doctor demonstrate technique.

Slide 1:15: Ready to breastfeed.

Turn projector off.

What can be the actual effect of ORT on overall child mortality and nutrition of Afghan children? Under ideal conditions how many lives do you think could be saved in Afghanistan if all mothers new about ORT and if packets were available? How would the under-5 mortality rate change? For various reasons related to study methodologies, it is diffioult to measure diarrheal deaths and illness and their relation to therapy. Even if positive changes are measured, we cannot rule out he possibility that ORT only postponed a diarrhea-related death. For example, a study in Honduras showed that deaths caused by diarrhea did drop during on ORT campaign, but no change in overall child mortality could be found.

of the few studies that exist show, there are several facts that stand out:

a. the largest impact will be in children under 1 year of age: the next largest impact will be in children under 2 years of age;

b. a reasonable goal to aim for is a 50% reduction in death rates due to diarrhea.

Therefore, we can expect in Afghanistan, that ORT alone could lower overall mortality only up to 17%. We must take other measures simultaneously to save children's lives so a child's death is not simply postponed untill the next illness.

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II. Immunization.

The next major child health problem is Infectious Diseases, which can be prevented by Immunization.

The target disease are for Immunization are:

Slide MS 14 - Measles.
Slide PC1 8 - Polio.
Slide PC111 - T.B.
Slide PCh 5 - Diptheria.
Slide COTD 23 - Tetanus.
Slide COTD 8 - Whooping cough.

Slide PCb. More detailed information will be presented about immunization later in the course under the topic of 'Disease Control'. It is introduced now because EPI is one of the 4 keys child survival technologies.

In terms of planning on EPI Program, the following points shoul be emphasised:

* Immunization will definately prevent the disease if the vaccine is potent and if it is correctly administered.

* The effect of immunization programs has been less than expected, due to the difficulties of implementation.

a. For example trying to get families to bring susceptible children for vaccination at the appropriate age.

b. Providing potent vaccines in the right quantity when there is a poor logistics / distribution system for keeping vaccines cold.

Slide MS24. * The third point is that in most countries, when you compare the cost of EPI program with the £ of lives saved c illnesses prevented vaccination is remarkably low cost. 100-30C [illegible] / child

This slide shows the incredible advantages of EPI and the money that a vaccination Program (EPI) actually saves. In the USA frc 1963 1972, EPI prevented almost 24 million acute cases - 708 000 yrs of life of measles. Prevented 1.3 million hospital days [illegible] 3 million [illegible]
WHO estimate cost $ 5-15/or 100 Rs.300 to fully immunize a child. In Afghanistan we estimate we could save another 17% of deaths through immunization.

III The 3rd major child survival problem (along with diarrhoea, infectious diseases) is ARI.

Slide ARIel These mothers have brought children to clinic for symptoms like cough, fever, diarrhoea.
Most coughs are not serious, but sometimes this cough is a sign of a more serious illness which will need antibiotics.

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Slide ARIe2. This women took her child to a BHW because of his coughing . What kind of medicine did the health worker give the mother for the child (?) antibiotic. Was this necessary (?) No, not every child with cough should have antibiotic. It is not only a waste of drug supply, but it can be harmful. Most coughs are due to virus infections. As you know antibiotics do not kill viruses. So antibiotics do not help most coughs. Often a cough is accompanied by fever. But a fever does not mean a child needs an antibiotic.

Slide ARIe3. This is a chest X-Ray of a seriously ill child who might die. The arrow shows white shadows in the one of lungs. What dies this white shadow mean? That child has Pneumonia. Since Pneumonia is caused by bacteria, antibiotics can cure pneumonia . If your clinic in Afghanistan does not have X-ray how can your staff tell if the child has pneumonia (?)

Slide ARIe4: Watch his breathing. A child with pneumonia has difficulty in breathing. You can assess the child by asking the family questions and examining the child

Slide ARIe14: The health worker discovers, the child has a cough, but no wheezing, no chest indrawing, no fast breathing. What should you do in this case? She will need home care. Since most health workers feel they must give some medicine, and almost across, patients expect medicine, it's ok to give cough mixture as long as there is no difficulty in breathing. If temprature is high, you can give paracetamol to reduce fever. But there are 3 rules of home care more important than paracetamol or cough mixture:

a. Health staff need to communicate with the mother to patiently feed child.
b. Give child plenty fluids
c. Family should be told to watch breathing, bring back if fast breathing

ARIe23: What if a child has cough, fast breathing 60 x/ 1 minute no chest indrawing? This child can go home antibiotics [illegible] instructions to family

ARIe24: Cough [illegible] fever + chest indrawing? What can you do? Normally refer for admission.

Turn projector off

In terms of your own planning as an MCH Director, what can the medical system and community do to prevent deaths from ARI? case management, including training and supply at each level of the system.

Health education in community- BHW's, dias, FBHW's should be trained to bring a child with severe infections to clinic [illegible] Dia S,BHW - [illegible] health workers in accordance with their skill level: diagnose, treat refer as needed [illegible] level

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should know how to manage a case of cough.
In community - if fast breathing - refer
In clinic - if chest indrawing - refer to hospital
All to communicate home care.

IV. MALNUTRITION. The fourth major child survival health problem, which often underlies or enhances death from previously mentioned diseases, is malnutrition.

Slide PCs4: What kind of malnutrition does this child have ? Gross marasmus - Muscle wasted -no fat. What probably caused his marasmus? Difficulty in breastfeeding because bottlefeeding in the first year is a common cause. What could have prevented this?

Slide PCc8: What signs do these 2 malnourished children have ? What causes kwashiorkor? (lack of protein + energy food) (Protein Energy Malnutrition Both caused by deficiency in protein + calories, sometimes both. From view of MCH Director, would handing out supplements from a clinic help in case of these 2 slides of marasmus + kwashiorkor.

SICip M17. Would health education program in your district stressing by - protein foods such as fish, meat, eggs be appropriate? Why not ?

M18. In addition to health education, growth monitoring has been the most important tool for diagnosis of malnourished children. Growth monitoring is regular measuring of weight (sometimes height) as child grows older. Its major use has been to screen for health conditions which may otherwise go unnoticed. The advantage is that it is objective, and if performed properly, very accurate. The card shows a dangerous drop to show link between need for weaning food + proper development. How successful have growth charts been in improving health status? It is not as effective as originally anticipated, because of these conditions:

1. Mothers must understand that the relationship between the graph and the actual weight is a result of her attention to diet
2. Health worker must be able to explain it
3. Adequate resources for problems- Followup with the growth monitoring is necessary for it to be of use. There must be sufficient quantity of food and medicines. There are very few places in world where regular growth monitoring functions a national scale Indonesia is one of the few places where information is collected and used. It is successful because they involve the mothers in data analysis - community effort.

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C. Dimensions of the Problems: MCH Summary.

Technologies Exist: Technologies exist, the question is how to best implement and manage these technologies using scarce resources and within the constraints imposed by war, social patterns, and lack of skilled personnel.

For women and neonates, strategies include-

a. Health information system
b. Dai training
c. Referral system (Dais, MCH Clinics with pre/postnatal care services, Obstetrical First Aid, Tertiary hospital Services)
d. Tetanus Toxoid
e. Family Planning
f. Continuing education in epidemiology and public health

For children under 5, strategies are -

a. ORT
b. EPI
c. Case management of ARI
d. Growth monitoring and health educati

Death Road: The Road to Death demonstrates where and how to focus these interventions. The Road to Death highlights the relationship between maternal health and child survival. MCH must include interventions for women and children and these interventions have a synergistic effect.

Intergrated Approach: MCH Programs should ideally assume an integrated approach to health, although some parts like EPI may start as vertical programs. No single intervention will significantly lower death rates on a national scale, several measures are needed simultaneously.

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TARGET INTERVENTIONS.

Maternal Health:

- Anemia Prevention / Treatment
- Tetanus toxoid
- Child spacing
- Prenatal Care: Screening for high risk
- Delivery by trained birth attendant
- Referral center for obstetric care

Infectious Diseases:

- Immunization Program (campaign based, facility based)
- Community Health Education

Control of Diarrheal Diseases

- ORT by all health workers
- Sanitation / water supply
- Community health education

Nutrition

Acute Respiratory Infections

- Immunization for measles and pertussis
- Proper diagnosis and treatment by all health workers.

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CHAPTER 2

PRIMARY HEALTH CARE

TEACHING OBJECTIVES

1. For the participants to understand the importance of Primary Healt Care
2. For the participants to understand their role in the Afghan Health system
3. To calculate the target population for immunization activities as well as for growth monitoring

TEACHERS SKILLS

be able to orient the participants to the role of PHC
ach how to calculate the target population of an area

ACTIVITIES

1. Explain Primary Health Care and the Afghanistan Health System Pyra using transparanseries.
2. Introduce the formula for calculating target population and have tl participants practice with examples.

DURATION

One day

TEACHING MATERIALS

Handouts, Transparancies

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CONCEPTS OF PHC (PRIMARY HEALTH CARE)

The health status of millions of people in the world today is unacceptable, particularly in developing countries. More than half population of the world does not have the benefit of prop health care . World Health Assembly and UNICEF meetings at Almatta in 1978 affirmed that primary health care approach is essential to achieve an acceptable level of health throughout the world as an integral part of social development in the spirit of social justice.

It was recognised at the 30th World Health Assembly in (1977) that the world is faced with tremendous health problems of magnetude and that the distribution of health resources throughout the world is not only inadequate but also inequitable, further more there was recognition that the healt is basic right and that it is essential to the satisfaction of basic human needs and for giving quality of life. There is adenial of this basic right to million of people who are caugh in the viscious circle of socio-economic poverty and ill healt. The 30th world health Assembly resolved in May 1977 that the main social target of governments and WHO in the coming decade should be attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life.

Discussing the above issues at the joint WHO-UNICEF conference held in 1978 at Almaata the governments of 134 countries and many voluntary in the health status of people particularly between developed and developing countries as well as within countries is politically, socially economically unacceptable a is therefore, of common concern to all countries. The Alma Ata international conference endorsed the concept of "PRIMARY HEALT CARE " as the way to "Health For All by the year 2000 A.D."

The declaration of Alma Ata has called on all governments to formulate national policies, strategies and plans of action t launch and sustain primary health care as part of a national health system. Primary health care got off to a good start in many countries with the theme "Health For All by year 2000AD." by 1980. The primery health care system of all member states would provide a wide range of health-promotive, curative, rehabilatative and supportive services to meet the basic health needs of the population and give special attention to high risk vulnerable and indeserved individuals and groups.

This will close the existing gap between the "have" and "have nots

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PRIMARY HEALTH CARE.

The terms "Primary Health Care" was first used to mean the care given to the patient by the health worker who saw him first. It was also called FIRST CONTACT CARE. If the patient was referred to hospital, it was called "Secondary Care". More recently, the Alma Ata Conference in 1978 gave primary health care a wider meaning. The Alma Ata conference defined primary health care as follows:

Primary health care is essential health care made universally accessible to individuals and acceptable to them, through their full participation and at a cost the community and country can afford.

The primary health care is equally valid for all countries from the most to the least developed, although it takes varying forms in each of them. The concept of primary health care has been accepted by all countries as the key to the attainment of Health for All by 2000 AD. It has also been accepted as an integral part of the country's health system. It includes the following elements:

The fundamental principle of primery health care is the PARTICIPATION OF THE COMMUNITY ALL STAGES. For communities to be involved, they need to have easy access to the right kind of information concerning their health situation and how they themselves can help improving it.

The essential components of a primary health care program are:

1. Education concerning preventing health problems and the methods of identifying, preventing and controlling them;
2. Promotion of food supply and proper nutrition and adequate supply of safe water and basic sanitation;
3. Maternal and child health care, including family planning;
4. Immunization against the major infectious diseases;
5. Prevention and treatment of locally endemic disease;
6. Appropriate treatment of common diseases and injuries;
7. Promotion of mental health and
8. Provision of essential drugs.

Principles underlying Primary Health Care

Primary health care is based on four principles:

1. Equitable distribution:

Health services should be accessible to all sections of the society with special attention to the needy and vulnerable groups This is also known as social penetration or getting the health services dispersed into the farthest reaches of rural areas and into the foulest depths of urban slums The failure to reach the majority of the people is usually due to

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inaccessibility . It is well known that rural populations, in most developed countries, are widely scattered and do not have adequate transportation facilities. City hospitals are often beyond the reach of most rural people and are usually patronised by those in their immediate vicinity. Primary health care aims to correct this imbalance and bring health services as near people's homes as possible and is supported by a higher level of health care to which the patient can be referred.

2. Community participation:

Notwithstanding the overall responsibility of the Central and State Governments, the involvement of individuals families and communities in promotion of their own health and welfare, including self-care, is an essential ingredient of primery health care. Community involvement also implies that the community should participate in the planning, implementation and maintenance of health services. This participation is not only desirable, but also a social economic and technical necessity.

3. Multisectorial approach:

One of the basic tenets of primery health carte is that full health cannot be attained by the health sector alone. It requires the joint efforts of the health sector of which it is an integral part). and other health related sectors, viz. education, food and agriculture, social welfare, animal husbandry, housing and public works, rural reconstruction, etc. To achieve coordination, countries may have to review their administrative system, reallocate their resources and introduce suitable legislation to ensure that coordination can take p

4. Appropriate technology:

Appropriate technology is not cheap primitive technology for the poor, primitive people. It calls instead for scientifically sound materials and methods that are socially acceptable, directed against relevant health problems. The examples are domiciallary treatment of tuberculosis as against sanatorium treatment: oral rehydration therapy in cholera and other diarrhoeal diseases bifurcated needle for vaccination, etc.

To give effect to the concept of primary health care, attempts are being made by Afghan Islamic Govt: to revamp the existing health infrastructure. The WHO has published a training/learning manual entitled "The Primary Health Worker" for adaptation to conditions in different countries (5).

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SOME STRATEGIES OF PRIMARY HEALTH CARE.

Below are listed some of the ways and means used in implementing PHC and achieving the goal of health for all.
Intersectoral co-operation. Primary Health Care programmes should be set in a context of integrated development - housing, transport, agriculture, communications, education and others.
The prevention of disease and the promotion of health are essential activities iun PHC.
Basic infrastructure. Some basic health facility should be established within reach of every family. This distance will depend on terrain, roads, and availabale transport, but an 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 service.

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 traditional birth attendants is proving successful. Co-operation with and training of other traditional medical workers should be encouraged.
Health education is fundamental to PHC Only through understanding the basic of a healthy life, can people 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 conditions should be provided
Most effective and self-reliant. As a country and community develops, the provision of health care should grow That is, the level of health care should reflect the total development and be within the means of the community.

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1.8 THE TWO SIDES OF THE HEALTH COIN-MEDICAL CARE AND PRIMARY HEALTH CARE.

We have seen that PHC is different from medical care. It has a wider range of components (water, nutrition and so on) and many different strategies (community participation and intersectoral co-operation).

But both systems of care are necessary and complement each other. A PHC worker needs to refer some patients to treatment centres or to a hospital for more specialised medical care. These two systems are best seen as two sides of a coin. Every country needs both systems of care.

Some of the differences between the two systems are summarised in table 1.1.

Table1.1

The medical care system.	The Primary Health Care approach
The medical system is 'vertical' i.e. separate from other government departments.	This functions best through intersectoral co-operation.
A curative system, emphasising treatment and drugs, doctors and hospitals or auxilliaries and dispensaries.	Mainly preventive and promotive. Emphasises water, sanitation, immunisation, nutrition and health education.
Emphasises improved technology and specialisation.	Emphasises common conditions, 'at risk groups' and reduction of infant mortality.
Treat individuals who are sick.	Helps healthy people in the community to prevent sickness as well as treating the sick
Auxillaries are regarded as substitutes for doctors	Auxillaries are the main agents of health promotion and change
Health is seen as a technology brought in from outside	Health promotion is a family and community activity.
Discourages traditional medicine and ignores culture	Encourages the health positive aspects of traditional medicine and culture
Is expensive, with a strong bias towards urban areas and hospitals	Is less expensive with a bias towards equal distribution, rural areas and the urban poor'
Often paid for by central	Partly supported by community

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government finance.	self reliance.
Causes the patient to be dependent on the doctors, nurse and health service	Helps the individuals and communities to become more capable of looking after themselves.

1.7 WHAT ARE THE SPECIAL FEATURES OF TEACHING PRIMARY HEALTH CARE ?

In the previous sections of this Chapter we have explained som of the ideas concerning PHC which are current in the world at the present time. These ideas have been developed by the World Health Organisation in cooperation with national governments. But it is recognised that for the implementation of these idea well-trained PHC workers are essential .

Because PHC differs in many ways from hospital-based curativ care, the training of PHC workers needs to be different from that of nurses and hospital auxillaries.

Below we outline five features which we think need special emphasis in the training of PHC workers. Because of these features teachers of PHC need to develop exceptional skills. This book is meant to help teachers understand the needs of PH workers and develop the skills necessary to train them.

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(1) The Need to Focus on 'Performance' during Training.

Primary Health Care is practical work. It is what the health worker can do in his daily life to promote health in his community which is important. Therefore the good PHC teacher will concentrate his teaching on the performance of his students - what they can do and how well they can do it. Performing well is important for all health workers - but whereas hospital nurses work under continual supervision and continue learning after qualifying by on the job training, the PHC worker often works alone in isolated areas shortly after qualifying . So he has little supervision in the development of his performance skills after the initial training period.

(2) The Need for 'Flexibility' in Training.

Because PHC is a developmental approach the system differs in each area. There are many types of PHC worker, there are courses of different lengths and depths and and different systems of care in each country . There is no such thing as a standard PHC curriculum: each training programme is unique.
In this situation PHC teachers need to be flexible and to be able to adapt the content and method of training to the needs of the community and the level of the students.

(3) The Need to Teach Decision Making.

Most PHC workers are stationed alone or with one or two others in isolated rural areas. They need to be able to examine the community health situation, to make judgements concerning health priorities and decide when and how to initiate changes. As responsible health workers they are faced daily with decisions concerning the diagnosis, management or referral of patients. They need to develop an approach to decision making which is based on an appraisal of the facts of the situation combined with an assessment of community values. PHC workers need training in the basic principles of reaching decisions.

(4) The Need to Teach 'Communication'

We believe that the most essential skill of the PHC worker is the ability to communicate well. This is because bringing health to people depends to a major extent on community participation. Primary Health Care programmes only function when communities and families actively participate in changing some aspects of the environment and habits of life. This active participation is dependent on the PHC worker being effective in communicating health - promoting messages to the community

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The factor of active comm ity pa ipation is fundament to a successful PHC Programmes. Some ways in which families and communities hel bring about healthy living c tions are shown in table 1.2. The advice, explanations, discussions of the PHC worker encourages people to take part in the activities which promote their health. To advise well, explain clearly, listen sympathetically and discuss fruitfully requir communication skills on the part of the health workers.

It is because the health promoting activities undertaken by the people are so dependent on the communication skills of the health worker that we believe teaching communication skills is an essential feature of PHC training.

Table 1.2 How PHC tasks need the active participation of people.

	Community activities which improve health.	Family activities which improve health.	Health worker activities which improve health.
Nutrition.	Formers plant nutrational crops which grow well locally (e.g.-beans, pulses, fruits). Farmers adopt methods. - which increase food. - Yields.	Mothers breast feed. Family grows vegetables. Mothers prepare good weaning food.	Health worker supervises. - a demonstration garden. - at the health center. Health workers encourages the plantin -g of nutrational crops. Health workers identifies nutrational deficiencies.
Water.	Health committee organises the protection of the local supply. Health committee maintains the pumps of the community well.	Family stores water in clean containers.	Health worker sends water samples for testing. Health workers prevents water borne diseases, by advising the community.
Maternal.	Health committee encourages the training of local traditional, birth attendants. Community council arranges s subsidised transport systems for mothers with an obstetric emergency.	Mothers prepares a clean room for home delivery. Mothers attends antenatal clinic regularly.	Health worker conducts, regular antenatal examinations care. Health workers gives prophyiactic medicines during pregnancy (iron, chloroquin). Health workers detects and refers at risk mothers.

5) The Need to Learn 'How to Learn'

rimary Health Care Workers will find more interest in their work if they continue learning after qualifying and continue developing their skills. This particularly applies to those who have reached the level of econdary school education. Continued learning may be achieved through refresher courses, inservice training courses or, in some countries, upgrading courses. For this to be effective the idea of learning through out life needs to be introduced during training. Those who learn to take pleasure in developing their kills and

increasing their knowledge during training are likely to continue this pleasure after qualifying. Many manuals , journals and news lett are available now a days for PHC workers; some of these are listed in Appendix 1 . If these are introduced during training, the health work may carry on reading them after qualifying . Continuing education and keeping up interest are important factors in motivating.

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PRIMARY HEALTH CARE INFRASTRUCTURE.

Afghanistan's largely rural population is scattered among more than 20000 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 brash climate made routine travel to the large cities for health care impossible for most people. The primary health care infrastructure must reflect the geographic realities of Afghanistan . It must also balance the needs of the population against the contraints of health manpower availability and the need to build a system which is financially sustainable.

The foundation of the primary health care pyramid in rural Afghanistan is the community health worker or Basic Health Worker (BHW). Most of the health problems which cause death and disability in Afghanistan can be handled at the village level by BHWs working alone or in pairs at Basic Health Posts. Currently there are over 1432 BHWs active in rural Afghanistan. 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 conditions such as diarrheal disease, malaria, and acute respiratory infections (ARI). Finally, they are taught to play a supportive role in the immunization programs.

Until recently, supervision of BHWs has been provided primarily through refresher training and debriefing held during resupply visits to Peshawar. Currently, efforts are underway to recruit and orient BHW supervised by Rural Health Officers (RHOs) stationed at district health offices. Supervisory visits should occur every one to three months, depending on the geography, season, and number of BHWs in an area. Supervisory visits include review of patient treatment records, review of drug and supply management practices, and review of community - oriented preventive health activities.

The next level in PHC pyramid is the Basic Health Center. Basic Health Centers are staffed by one and two to four midlevel health workers and serve a large community than that served by Basic Health Posts.

Basic Health Centers are the first line of referral for BHWs. [illegible] in very isolated areas Basic Health Centers do not have patient beds or laboratory services They are expected to serve as centers for facility - based immunization campaigns.

Wherever female health workers are available and the need exists, MCH Health Centers will be established to provide prenatal and postnatal care risk assessment dia training, immunization, and other MCH services. In some communities basic health Centers and MCH Centers may share facilities or be located in adjacent

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buildings. In other communities, MCH Centers and Basic Health Centers will exist separately.

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 midlevel health workers , and several midlevel health workers. Under the present circumstances, however, many of these facilities will not have a fully qualified medical doctor. Comprehensive Health Centers 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

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The patients beds and a small field laboratory. The comprehensive Health Centre will be the major government health facility in less populated districts which cannot support a hospital.

Overtime it is anticipated that Comprehensive Health Centres will develop certain specilized program such as MCH services. tuberculos control, malaria control, and disability services. Programmes will differ from one center to another, depending on local disease patte the health needs of the community, and the availability of trained personnel to staff the programs. Comprehensive Health Centres will also play an important role in supporting the cold chain and immuni zation activities.

The next level in the PHC pyramid is the Primary Care Hospital. Pri Care Hospitals are expected to serve one to four districts, dependi on population and geography. Primary Care Hospitals should be staff by one to three medical doctors. Most PHC Hospitals can be expected to have ten to twenty patient beds, a field laboratory, and portabl X-ray capability. In the immediate future it is not expected that most PHC hospitals will have major surgery capability,,though this develop over time.

hospitals will serve as the main referral point for patients from Comprehensive and Basic Health Centers. A Health Center Superv based at the PHC hospital or adjacent district health office should make regular visits to all health centers in the area. In addition staff at these hospitals should provide support for MCH, TB , Malar disability, or other special programs provided at Comprehensive and Basic Health Centers in the area.

Specilized medical services, most major surgical services, freeze point capability, health worker training (BHWs, female health worke and midlevel health workers), expended laboratory services, prosthe febrication, and other more specilized services will be provided by provincial hospitals and small numbers of regional referral hospita located in major cities,. Though provincial hospitals are expected have upto 50 beds the provincial hospitals for some of the more remote, less populous provinces may have staffing and services more like those found at PHC hospitals.

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SOME STRATEGIES OF PRIMARY HEALTH CARE.

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Traditional medical systems. Research is needed into the effectiveness of some traditional remedies. Training of traditional birth attendants is proving successful. Co-operat... with and training of other traditional medical workers should be encouraged.

Health education is fundamental to PHC . Only through understanding the basic of a healthy life, can people 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 conditions should be provided.

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

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AFGHANISTAN
PROVINCIAL HEALTH SYSTEM

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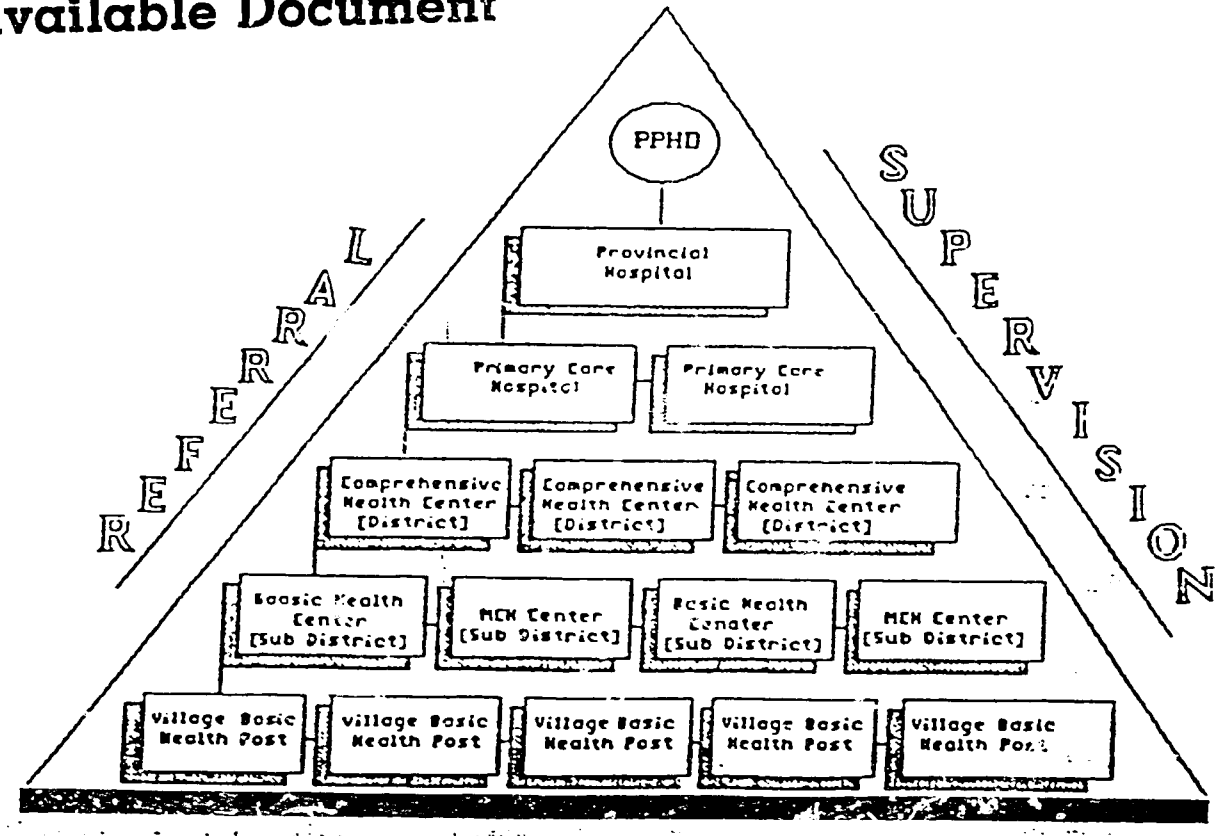

CHAPTER 3

HOW TO BE A BETTER TEACHER

TEACHING OBJECTIVES

1. For the participants to understand the process involved in planning, conducting and evaluating a training program

TRAINERS SKILLS

To be able to teach the students according their knowledge level and local culture.

ACTIVITIES

1. To explain different teaching methods
2. To use each method where appropriate

DURATION
One day

TEACHING MATERIALS
Handout, Transparencies

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STEPS FOR CONDUCTING A LECTURE

BEFORE THE LECTURE

- Prepare your lecture
- Repeat your lecture
- Make handouts of your lecture
- Think of some roleplays or other appropriate activities
- Prepare visuals aids
- Check the number of students, rooms, space, etc.

DURING THE LECTURE

- Be confident
- Thank you for the Boys
- Try some practical jokes during the lecture
- Do not ask for too many questions during the lecture time
- Smile during the lecture
- Distribute your handouts at the end of lecture
- Do not go too fast
- It is very important to involve the participants
- First let participants find some solutions
- Always give practical examples
- Ask participants for the other life examples

AFTER THE LECTURE

- Let participants read your handouts
- Ask if there are any questions
- Do not diverse from the subject
- Ask students how they can implement the content of the lecture, a
- what would be the process
- Try to solve implementation problems
- Give participants some practical homework
- Smile at the end of your lecture and give a good practical joke

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TRAINING METHODOLOGIES FOR DAIS AND OTHER COMMUNITY HEALTH WORKERS

INTRODUCTIONS TO TRAINING SESSIONS

Ask dais or other village women about their families at the start of eve training session. Take an interest and try to help them with any family problems they might have. For example if somebody in their family is sick, arrange for them to be seen in the clinic early. Remember that a student who is not worried and knows that her teacher takes an interest her, is more likely to learn.

Accept invitations to visit their homes. This will be a good opportunit for you to see what facilities they have (laterines wells, rubbish tip gardens, animals) and how clean they care for their homes and children, that you can adapt your teaching to their situation. You should try and visit each of the FHW's homes once by the end of training. Make friends the important women in the house, like the mother-in-law, and show terest in their problems.

THE COMMUNITY HEALTH WORKER HAS NO EXPERIENCE OF FORMAL EDUCATION

Although villagers are not able to read or write, it does not mean that they are not intelligent. They have a lot of knowledge taught to them by other people to their community and built on their own experiences. Most of the things we have learnt have been in real life situations and not in the classroom. People learn in many different ways and you can use these ways to help in your teaching. Here are some examples:

- Talking to each other and discussing problems. You should also encourage dais and CHW's to do this in the training sessions.

- Looking at things. You can show them pictures.

  Copying things that people they respect do. Many Afghan women have learnt their skills from wise women in their households. If you are friendly with dais share jokes with them and create an atmosphere of trust then they will also learn from you. You can demonstrate [illegible] and the dais can then copy these skills. They can [illegible] by the end you say or role plays.

  [illegible] mistakes and then [illegible] when trainees practice the [illegible] must create a [illegible] to make mistakes. [illegible] also give them time and encourage them to repeat the skills until they get them right.

  [illegible] from [illegible] pictures. Villagers will be familiar with some [illegible] pictures and can add to their knowledge by giving health [illegible].

  [illegible] from story telling. Afghans are great story tellers and you [illegible] this to get health messages across.

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OF DIFFERENT TEACHING METHOD

It important that the teaching methods you use create a real life situation and NOT a ... rtant because ... a real life ... achieve this yo ... the floor with ... learning their names, showing a ... and drinking tea. Remember that students lear ... they like and respect. Make the teaching fun, ... students ... learn more easily if they are ... themselves ... things you havi ...

... words and try to find the appropriate word in their language. ... words as much as possible. Allow the shy women a chance to ... your trainees may be rather slow to learn new ideas and ... all the ... the teaching. ... are sitting in a ...

... teacher you will be more relaxed if you have prepared your teaching ... well. The training manual has been designed to help you with ... the day before ... prepare all the ... materials listed at the ... of the lesson plan.

Timetable should be ... sessions like being ... to attend a delivery case or mobile vaccination clinic, should take ... over the scheduled session. The course starts with a topic the ... are very familiar with, like pregnancy. They are often worried th ... will be too complicated and will be very reassured when you sta ... a topic they already know a lot about.

Dais and CHWs will have to remember everything you teach them because ... are not able to write it down. It is therefore important to try and ... the amount of information you give them to the main points in each ... You can get them to use their fingers and body to remember ... when teaching about the 6 diseases vaccinations ... and work your way ...

... the sessions as active and practical as possible. Do not allow them ... for more than 2 hours. If trainees look tired change to another ... stop for tea. Vary the activities as much as possible by ... few minutes. As you gain experience you ... to judge this more easily. ... teaching methods include the ...

Question and answer
Discussions
Demonstrations
Role play
Visual aids
Stories

[illegible] following more information on [illegible] method.

[illegible]TIONS AND ANSWERS

[illegible] should not do all the talking or give them long lecture. Ask th[illegible] [illegible] of questions about what they do for different health problems and [illegible]ten to their replies. Combine [illegible] to your teaching. Give [illegible] the woman time to answer if wrong. Encourage women to ask questions [illegible]ever they want to. Before starting a new topic assess their knowledg[illegible] practices. Frightened students do not learn.

[illegible]tions are important for you to get information you want from the FHWs [illegible] them to get information they want from you. There are a ways of [illegible]ing questions, the closed [illegible] to get the information you [illegible] you must learn [illegible] questions. Open questions usually give [illegible] more information than closed questions.

[illegible]e are examples of closed questions:

[illegible] which give [illegible]
Do you breastfeed your baby [illegible]
Is it better to cover the baby's cord or leave it open ?

[illegible]stions where the answer is limited to yes or no.
Is it good for a woman to bleed after delivery ?
Do [illegible]

[illegible] examples of open questions

[illegible] starting [illegible] WHY, HOW, WHEN, WHICH, usually ask for peoples [illegible]
[illegible] important ?
[illegible]
[illegible] the development [illegible]
[illegible] the best way to [illegible]
[illegible] women ?

[illegible] for people [illegible] attitudes, beliefs, descriptions, [illegible]

[illegible] (Attitude)
[illegible] (Belief)
[illegible] (Description)
How do you think health of mothers can be improved ? (Suggestion)

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[illegible] open questions are used to the [illegible] in each teaching session. The questions from the lesson plan on tetanus are used as an example.

[illegible] trainees about their work [illegible]

At the start of session by you to ask about the trainees families and work. This helps to create a good relationship with the women [illegible] allows you to check that they are [illegible] their new knowledge and skills in the community.

[illegible] asked about their [illegible] previous session and review the main points.

[illegible] you to revise the main points and home visits from the [illegible] session. This allows you to assess your teaching and deci[illegible] whether the [illegible] are ready to move onto the new topic. It also allows you to check they are using their new knowledge and skills a[illegible] home visits.

[illegible] lesson is taken die from [illegible] the first [illegible] weeks of life in your community ?

What do you think is the cause of tetanus ?

These questions are asked to [illegible] out the knowledge, attitudes and practices for a new [illegible] of tetanus. You can then build on the knowledge they already have, and not waste time an[illegible] them with things they already know.

[illegible] you remember what I told you was the cause of many sicknesses ?

-- Microbes in dirty things. [illegible] Birth microbes in dirt get into th[illegible] body. [illegible] this happen

-- From dirty [illegible], knife etc.

How do the microbes get inside ?

-- Through the cut cord [illegible] etc.

[illegible] questions [illegible] with stimulate discussion and make [illegible] this is one of the [illegible] and [illegible] help by a problem yo[illegible] [illegible] to make that mistake again. You can also [illegible] through problem solving using pictures. Here is another [illegible] questions to teach.

[illegible] where are you likely to find flies ?

[illegible] flies, animal houses, [illegible] toilets etc.

[illegible] inside where do you find [illegible] of flies ?

[illegible]

[illegible] some flies

[illegible] probably

[illegible] how can they do this

[illegible] land on [illegible] and [illegible] flies there and then come into the [illegible]

[illegible] etc.

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Do you have any [illegible]

This question asked by you allows the trainees to find out the information they really want about tetanus. You should allow time for them to ask questions after every main point and at the end of the session.

[illegible]

Henna's baby died of tetanus when she was 10 days old. An untrained woman in the house delivered the baby because the family were ashamed to call the trained FHW.
Why do you think Henna's baby got tetanus?

[illegible] and then again at the end of the [illegible] that the trainees understand the new topic, tetanus. The questions are put in a real life situation, with Henna and her family, so that the women will give an answer based upon what they would actually do in their community. Take care not to embarrass FHWs if they do not know the answer.

[illegible]

Make the question clear and simple. Do not use difficult or medical words.
Ask the question and allow the women time to think. Then choose one to answer. In this way all the trainees will try to think of the answer.
[illegible] Even the shy [illegible] does not want to answer they do not have to. They are adults and not school children. After the session, stay behind a little while to answer individual questions because some women may be shy to ask questions in front of [illegible] trainees.

[illegible]

[illegible] followed by a discussion in which [illegible] and all the trainees are able to give your own beliefs and [illegible] problem. Discussions like [illegible] to reveal to [illegible] the trainees' attitude [illegible] you also learn a lot [illegible] these discussions [illegible] of a normal [illegible] group [illegible] will naturally split into [illegible] groups for discussion. You can split the group into 2-3 [illegible] about [illegible] people for small group discussions and allow them [illegible] minutes to agree on possible answers. You can then bring the [illegible] together to [illegible] answers and have [illegible] group discussion.

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[illegible] are examples of some activities you can get these small groups to do

[illegible] what [illegible] of preventing malaria.

[illegible] diarrheal danger signs and their management [illegible] groups

[illegible] models to sort out a problem like deciding where the latrine should be positioned in relation to [illegible] river and well.

[illegible] how to use the delivery kit to deliver a baby

Doing [illegible] role play in a home visit where the group have to decide how best to motivate a mother-in-law on birth spacing who wants more grandchildren

Making salt and sugar syrup

[illegible] advantage of this small [illegible] that all the trainees are [illegible] something and this will improve learning. You can walk round and supervise what each group is doing. Tell the small groups how much time [illegible] are allowed for the activity, and when they have finished bring them [illegible] large group again for discussion. Choose one person from each [illegible] group to explain her groups answer to the question.

Demonstrations

There are many practical skills in this training course which you will have to demonstrate. Examples of these include handwashing, delivering a baby, cleaning a weaning cup, making salt and sugar syrup [illegible] should use [illegible] steps for all these practical skills which you should follow when [illegible] demonstration. Doing something practically is the best way of learning. As the Chinese proverb goes "I hear, I forget, I see, I remember, I do, I understand." There is also an Islamic equivalent to this well known proverb, "I [illegible] fire, I forget it. I see, the warmth of a fire, I remember it, [illegible] understand it.

[illegible] them in a circle is the best way of doing this

Explain why this practical skill is important

Demonstrate the practical skill, explaining each step, and allowing [illegible]

[illegible] repeat [illegible] front of the others. If they make mistakes, they should keep doing it until they get it righ

[illegible] the trainees to repeat the skill in pairs, working at the [illegible] time with you supervising

Explain the other important [illegible] that goes with this skill. [illegible] how much to give, how often and how long to continue

[illegible] person to talk to describe the steps and the important [illegible]

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role plays you [illegible] the trainees [illegible] in roles, speaking and behaving i[illegible] way you think that the person would do in real life. Role plays allo[illegible] to test out different ways of trying to change peoples attitudes and [illegible] to prepare them for some visits in their community. You can [illegible] role plays with different characters from the community including th[illegible] mother-in-law, MCHW, group leader, [illegible]. Suggestions on role [illegible] are included in the "How to Teach" [illegible] and you can adapt [illegible] to the needs [illegible] different groups. Afghans women love drama and are [illegible] witnesses and comedienne. Your problem will be controlling the [illegible] plays so that the trainees learn something from them, rather than [illegible] them as pure entertainment. The role plays often turn out to be [illegible] that the trainees watching could too much and miss the health [illegible]. You can also use role plays [illegible] small group activity with 2-3 [illegible] groups doing a role play at the same time. This is easier for [illegible] but more difficult for you to supervise.

[illegible] tips on doing role plays:

[illegible] role [illegible] the [illegible] first sessions. Get to know your new group of trainees first. [illegible] to select the right person for the role play who will not be shy or embarrassed. Later in the training [illegible] other ones can be involved.

Start [illegible] the role plays with just 2 characters played by yourself [illegible] confident [illegible]. They can become more complicated with more characters later [illegible] provided. [illegible] to have a stubborn mother-in-law who believes [illegible] traditional practices so [illegible] to give up these practices.

[illegible] the role play in advance if possible and use models to [illegible] the setting. For example if you are role playing as a dai [illegible] bottlefeeding, use a feeding bottle [illegible] or a real baby.

[illegible] the [illegible] the role play starts which the trainees [illegible] have to answer afterwards.

[illegible] the role play to go on [illegible] long [illegible] get boring.

[illegible] the role play afterwards [illegible] to the questions you [illegible] for example may [illegible] the mother bottlefeeding her baby felt [illegible] experiencing now the [illegible] health messages [illegible] useful for any health [illegible].

[illegible] to repeat the [illegible] different trainees and perhaps more [illegible] the role play could be more difficult. For example the bottlefeeding mother could have a mother-in-law who advised her to give up breastfeeding because she thought the woman [illegible] have enough milk.

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ere are many different types of [illegible] is including real jects, models, dolls, posters, pictures, [illegible], photographs and annelgraphs. The teaching materials required for each topic are listed the beginning of the lesson plan under the objectives. Real objects always the most effective teaching materials. Three-dimensional terials like models are better than two-dimensional ones like pictures. member that people who are unable to read and write also have problems erstanding pictures. Visual aids are [illegible] for starting discussions, ping people interested in the lesson and helping them remember tinese proverbs. Any practical skills however should be taught by onstration using real objects rather than using pictures.

e teaching materials are also good for problem solving. For example can use the model of the house compound with latrine and well to hel ide the safest site for the latrine. They are able to touch and play hand with the models. You can ask the trainees to arrange the BCG tures in the right order. You can also do this with pictures on a nnelgraph which can be rearranged. You can easily make your own nnelgraph using a length of cloth and pictures with sandpaper strips ch on the back.

effective a visual aid is depends on how well you use it in your ching. It needs to be seen by all members and also understood by m.

e are some tips on how to use a visual aid:

Hold up the picture so that everyone can see it

Ask the following questions to make sure they understand the picture rect.

-- What do you see in the picture
-- What do you think this picture is about ?
-- What do you think this is (pointing to different things in the picture) ?

-- Explain the picture pointing to different parts

You could make a story giving the people in the picture names

It is good if the pictures can be passed round so that everyone can look at them in small groups. To prevent the picture becoming dirty it can be laminated - covered in plastic with the edge of the [illegible] own [illegible] made in this way, can be used to [illegible] and display your [illegible] insert the the pictures you need just before the session and then replace them with others for the next session.

-- Drawing your own pictures if you think they will help [illegible] them in with crayons. Use your imagination to write on the [illegible] and ask your agency to help you test and develop them. [illegible] teaching materials are [illegible] by people [illegible] the actual [illegible] in the field. The trainees may be able to make things for [illegible] such as dolls and puppets. Keep an open mind to new ideas and you will never become a bored or boring teacher.

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member YOU are the best, cheapest, most easily transportable and least [illegible] be left behind teaching material you have. Use your body to [illegible] your teaching. Here are some examples. Use fingers, with the [illegible] rec representing the monthly period, to explain the safe [illegible]od. Use your body and stick [illegible] to represent tetanus. [illegible] different part of your body [illegible] for measles, mouth for [illegible] cough [illegible] to explain the 5 diseases vaccinations [illegible] against.

[illegible] culturally appropriate wa[illegible] teaching the new [illegible] trainees. There are examples of stories in the [illegible] of most topics and you can use these, adapt [illegible]hese or replace [illegible] with other stories. They have a newly trained da[illegible] Kala Jan as the [illegible] stories are easy to carry around and [illegible] be passed onto [illegible] at the end of the [illegible] their family. You [illegible] why not start by [illegible] confidence and find [illegible] up new stories from ideas given to you by the trainees.

[illegible]

[illegible] these are one of [illegible] translate the Koranic [illegible] from Arabic into Pashto or Farsi so that the village women can [illegible] them.

[illegible] are part [illegible] national health system and make special [illegible] women and children go [illegible] for [illegible] treatments. [illegible] treatments provide [illegible] support [illegible] his or her family. You [illegible] discourage them, suggest to the dais or community workers that [illegible] could be even more effective if combined with the 5 [illegible] good diet, vaccinations, [illegible] visits and [illegible] danger signs.

[illegible]

[illegible] the all those attending training sessions, especially if [illegible] remember that traditional birth attendants for [illegible] have many years work experience to their community [illegible] babies and [illegible] children. They have learnt these [illegible] from women in the [illegible] society there already [illegible] different [illegible] child care. Your [illegible] the dais and other community health workers will help to [illegible] these skills they already have and add new skills and knowledge. [illegible] encourage your dais to teach these new skills to other women in [illegible] the start of women [illegible] those attending the [illegible] the [illegible] since the [illegible]

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[illegible] has a traditional health system with [illegible] practices based [illegible]
[illegible] Roman [illegible] mixed with more recent Islamic
[illegible] you must ask the vill[illegible] [illegible] health practices, and
[illegible] which of them are good, which of them are bad and which of them are
[illegible]. With each new group you will use a special questionairre (see
[illegible]) to find out these health practices.

[illegible] traditional [illegible] believe that [illegible] is caused by the following:

God's will
Humoral qualities of hot and cold
Jinn
Evil eyes

[illegible] of these traditional treatments are not harmful, and provide
[illegible] emotional [illegible] for the sick person and his or her family.
[illegible] should be combined with [illegible] methods that you will teach
[illegible] treatments are harmful, but [illegible] try not to be critica
people for using them. Instead give trainees enough information, anc
[illegible] them through discussions, so that they can work out for themselves
[illegible] treatments are harmful. In this way are more likely to change
[illegible] practices.

[illegible]

not start a new topic until the trainees have understood the previous
[illegible]. Every 3-4 teaching sessions should be followed by a revision
[illegible]. For example if you teach the group [illegible] in one week, thr fir
[illegible] will be teach[illegible] the [illegible] and the fourth day revising the main
[illegible] these topics. You can have check lists for each practical ski
home visit. You can use seperate lists for knowledge and skills or
them together. Using them together is more like real life.

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Learn to organize, delegate, and supervise.

Count your Blessings, not your troubles

Find yourself and be yourself

Unjust criticism is often a disguised compliment. Remember that noone ever kicks a dead dog

[illegible] best you can, and put on your old Umbrella. Keep the rain of [illegible] from ruining your [illegible]

Become genuinely interested in others

Make the others feel important and do it sincerely

[illegible] respect for other's opinions. Never tell a man he is wrong

[illegible] in a friendly way

Let the other fellow feel that the idea is his

[illegible] attention to people's mistakes indirectly

Appeal to the noble motives

Talk about your mistakes before criticizing the other person

Ask questions instead of giving direct orders

Let the other man save his face

Do not imitate others

It is not by size that you win or you fail, be the best of whatever [illegible]

Collected by M. Sabir

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III HOW TO BE A BETTER TEACHER.

1. Objective: The participants should understand the process involved in planning, conducting and evaluating program.

2. Skills: 1) To teach the students according their knowledge level and social setting

2) To have enough good teaching experience.

3. Activities: 1. Be ready for teaching before the lecture.
2. Should be prepared the topic materials
3. To encourage the students to participate in lecture

4. Duration: One day

5. Reference: Teaching manual of PHC & for FHWs.

6. Teaching Materials: Handout, Transpernseries.

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1. Before the lecture.

2. During the lecture.

3. After the lecture.

BEFORE THE LECTUI

a) Prepare your lecture.

b) Repeat your lecture

c) Make handouts of your lecture.

d) Think of some Roleplays.

e) Prepare some visual aids.

f) Check the No. of students, Room, Space.

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II. DURING THE LECTURE

a) Be confidence.

b) Think you are the boss.

c) Try some practical jobs during the lectures.

d) Donot ask them to ask questions in lecture time.

e) Smile always during the lecture.

f) Distribute your handouts at the end of lecture.

g) Donot go too fast.

h) It is very much important to involve them partly

i) First let them find some solution.

j) Always tell them practical examples,

k) Ask them for of their life examples

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III. AFTER THE LECTURE.

a). 1. let them read your handouts

b) Ask if there is any question

c) Donot diverse from the subject

d) Ask them how they implement this lectures, if they do what would be the process.

e) Try to solve these problems

f) Give them some practical home works

g) Smile at the end of your lecture and give them a good practical joke that they could remember your lecture always.

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1. Learn to Organise , Dupnlize, and Supervise.

2. Cound Tour Blessings, not your Troubles.

3. Find yourself and Be Yourself.

4. Unjust criticisam is often a disguized compliment. Remember that, No one ever kicks a dead dog.

5. Do the best you can, and put up your old Umbrella keep the rain of criticisam from running down the back of your neck.

6. Become genuinely interested in others

7. Make the others fee important and do it sincerely.

8. Show respect for other's opinion. Never tell a man he is wrong.

9. Begin in a friendly way.

10. Let the other fellow feel that the idea is His.

11. Call attention to people s mistakes indirectly.

12. Appeal to the noble motives.

13. Think about your mistakes before criticizing the other person.

14. Ask question instead of giving direct orders

15. Let the other man save his face.

16. Donot initiate others.

17. It is not by size that you win or you fail, be the best of whatever YOU ARE.

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The FHWs are members of a family.

Ask FHWs about their families at the st[illegible] of every teaching session. Take an interest and try to help them with any family problems they might have. For example if someboody in their family is sick, arrange for them to [illegible] seen by the clinic staff. Remember that a student who is not worried and knows that her teacher takes an interest in her, is more likely to learn.

Accept invitations to visit their homes. This will be a good opportunity for you to see what facilities they have (latrines, [illegible] rubbish tips, gardens, animals) and how clean they care for their homes and children, so that you can adapt your teaching to their situation. You should try and visit each of the FHWs homes once by the end of the training. Make friends with the important women in the house, like the mother-in-law, and show an interest in their problems.

[illegible] FHWs have many years work experience in their community.

Show respect in the FHWs, specially if they are older than you. Remember they often have many years work experience in their community, delivering babies and caring for sick children. They have learnt these skills from other women in the family, so in [illegible] society there already [illegible] tradition of training women in maternal and child care [illegible]. Training of the FHWs will help to improve these skills they already have and 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 [illegible] in the community since the last session.

The FHWs are part of the traditional African health system.

[illegible] has a traditional health system with health [illegible] the old Asian, Roman and Greek systems mixed

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with more recent Islamic beliefs. You must ask the FHWs about these health practices, and decide which of them are good, which of them are bad and which of them are harmless. With each new group of FHWs you will use a special questionaire (see section) to find out these health practices.
Most Afghan's, including the FHWs, believe that sickness is caused by the following:
1. God's will.
2. Humoral qualities of hot and cold.
3. Jinn.
4. Evil eye.

Many of these traditional treatments are not harmful, and provide important emotional support for the sick person and his or her family. They should be combined with the more modern methods that you will teach the FHWs in this course. Some of the treatments are harmful, but you should try not to be critical of the FHWs for using them. Instead give the FHWs enough information and guide them through discussions, so that they can work out for themselves why these treatments are harmful. In this way they are more likely to change their harmful practices.

Session 4 TOT: C PRINCIPLES OF ADAULT LEARNING

THE FHWs HAVE NO EXPERIENCE OF FORMAL EDUCATION.

Although the FHWs are not able to read or write, it does not mean that they are not intelligent. They have a lot of knowledge taught to them by other people in their community and built on their own experiences. Most of the things we have learnt have been in real life situations and not in the classroom. This is the same FHWs. They learn in many different ways and you can use these ways to help in your teaching. Here are some examples:

-Talking to each other and discussing problems. You should also encourage FHWs to do this in the training sessions.

-Looking at things. You can show them pictures.

-Copying things that people they respect do. Many Afghan women have learnt their skills from wise women in their households. If you are friendly with the FHWs, share ideas with them and create an atmosphere of trust then they will also learn from you. You can demonstrate practical skills and the FHWs can then copy your skills. They can also [illegible] things you say in role plays

-Making mistakes and then trying again. When the FHWs practise the new skills they will at first make mistakes. You must create a friendly atmosphere so that they are not frightened to make mistakes. [illegible] give them time and encourage them to repeat the skills until they get them right.

-Learning from Islamic quotes. The FHWs will be familiar with some Islamic quotes and you can add to their knowledge by giving

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health related quotations

-Learning from story telling. Afghans are great story tellers and you can use this to get health messages across.

USE OF DIFFERENT TEACHING METHODS.

It is important that the teaching methods you use with the FHWs create a real life situation and NOT a classroom situation. This is very important because the FHWs are going to USE the knowledge you teach in a real life situation unlike school children who just remember it. To achieve this you must create a family type atmosphere, by sitting down on the floor with the FHWs introducing yourself, learning their names, showing an interese in their families and drinking tea. Remember that students learn more easily from teachers they like and respect. Make the teaching fun, by telling jokes, because students also learn more easily if they are enjoying themselves. Practice what you preach. Do not do things you have taught the FHWs not to do. For example keep your nails short !

Use simple words and try to find the appropriate word in their language. Avoid medical words as much as possible. Allow the shy FHWs a chance to speak. Some of your FHWs may be rather slow to learn new ideas and need some extra individual teaching. Keep eye contact with all the FHWs to check that they are interested and understand the teaching. It is easier to keep eye contact with everybody if they are sitting in a circle.

As a teacher you will be more relaxed if you have prepared your teaching session well. The training manual has been designed to help you with this. You should read the topic the day before and prepare all the teaching materials listed at the top of the lesson plan.

The timetable should be fairly flexible and practical sessions like being able to attend a delivery case or mobile vacoination clinic should take priority over the scheduled session. The course starts with a topic the FHWs are very familiar with, pregnancy. They are often worried the training will be the complicated and will be very reassured when you start with a topic they already know a lot about.

The FHWs will have to remember everything you teach them because they are not able to write it down. It is therefore important to try and limit the amount of information you give them to the main points in each lesson plan. These main points are found on the left hand side of the page. You can get them to use their fingers and body to remember information. For example when talking about the 5 diseases vaccinations protect against you can start with the eyes (measles) and work your way down the body to the legs (polio). The how to teach this column on the right hand side of the page will give you instructions like this.

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Make the sessions as active and practical as possible. Do n allow them to go on for more than 2 hours. If the FHWs look tired change to another activity. [illegible] Very the activities as much as possible by changing teaching methods every few minutes. As you gain experience you will be able to judge this more easily. The teaching methods suggested in the "How to teach this" column include the following:

-Question and answer,
-discussion,
-demonstration,
-role play,
-visual aids,
-stories.

Here follows more information on each teaching method:

<u>Questions and answers.</u>

You should not do all the talking or give them long lectures. Ask them lots of questions about what they do for different health problems and listen to their replies. Combine these replies into your teaching. Give all the women time to answer a question [illegible] answer is wrong [illegible] Before starting a new topic assess their knowledge and practices. Encourage good practices and avoid critising bad practices. Frightened students do not learn.

Questions are important for you to get information you want from the FHWs and for them to get information they want from you. There are 2 ways of asking questions, the closed and open ways. To get the information you need aaaayou must learn to ask open questions. Open questions usually give for more information then closed questions.

Here are examples of closed questions:

[illegible] is [illegible] or [illegible]
[illegible] you breastfeed your baby or use a bottle?
[illegible] the baby's cord or leave it open?

Questions where the answer is limited to yes or no
[illegible] woman to friend after delivery?
[illegible] place

Here are examples sof open questions:

Questions starting with WHY,HOW,WHAT,WHEN,WHICH usually ask for new knowledge.

[illegible] are growth charts important?
[illegible]
[illegible] is a development milestone ?
[illegible] that we [illegible] a baby of foods ?
[illegible] disease is prevented by vaccinating all women ?

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questions that ask for people s attitudes, beliefs, descriptions, suggestions etc:

-what do you think about vaccination ? (attitude)
-what do you think is the cause of tetanus ? (belief)
-what does a child with measles look like ? (description)
-how do you think health of mother s can be improved?(suggestion)

These open questions are used in the following order in each teaching session. The questions from the lesson plan on tetanus are used as an example.

1. Ask FHWs about their work and families

At the start of the session [illegible] ask about the FHWs families and work. This helps to create a good relationship with the FHWs and allows you to check that they are using their new knowledge and skills in the community.

2 Ask 2-3 FHWs about their home visits from the previous session and revise the main points

Then by you to review the main points and home visits from the previous session. This allows you to assess your teaching and decide whether the FHWs are ready to move onto the new topic. It also allows you to check they are using their new knowledge and skills at home visits

3 What sicknesses or deaths did [illegible] in the first 2 weeks of life in your community?
What do you think is the cause of tetanus ?

These questions are asked by you to find out the knowledge, attitudes and practices of the FHWs for the new topic, tetanus. [illegible] and then build on the knowledge they already have, and not waste time and bore them with things they already know.

4 Can you remember what I told you was the cause of many sicknesses ?

microbes in dirty things
[illegible] first get into the baby s body Can you [illegible] how this happens
from dirty hands knife or
now do the microbes get inside
through the cut cord.. ... .etc.

[illegible] asked by you will stimulate discussion [illegible] problem and solve it. This is [illegible] satisfied you [illegible] never to make [illegible] teaching through problem solving using pictures. Here is another example of using questions to teach

[illegible] are [illegible] where are you [illegible] find flies?
[illegible] flies?

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- kitchen, around food.
Are these the same flies?
- yes, probably.
Flies often walk up walls. How can they do this ?
- sticky feet.
So if flies land on stool and have sticky feet and then come into kitchen, what does this mean?
- flies bring stool into the kitchen.....etc.

5. Do you have any questions about tetanus?

This question asked by you allows the FHWs to find out the information they really want about tetanus. You should allow time for them to ask questions after every main print and at the end of the question.

6. Revision of main points.

Henna's baby died of tetanus when she was 10 days old. An untrained women in the house delivered the bay because the family were ashamed to call the trained FHW.
Why do you think Henna's baby got tetanus?

These questions are asked by you during the session and then again at the end to assess that the FHWs understand the new, topic, tetanus. The questions are put in a real life situation, with Henna and her family, so that the FHWs will give an answer based upon what they would actually do in their community. Take care not to embarrass FHWs if they do not know the answer.

Here are some tips on asking questions:
1. Make the question clear and simple. Do not use difficult or medical words
2. As the question and allow the FHWs time to think. Then choose one to answer. In this way all the FHWs will try to think of the answer.
3. You should encourage all the FHWs 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 school children
4. After the session, stay behind a little while to answer individuals questions because some FHWs may be shy to ask questions in front of the others

Discussions.

Many of these open questions can be followed by a discussion in which both you and all the FHWs are able to give your own [illegible] and experience to reach a decision or solve a problem. Discussions like this are more likely to lead to a change in the FHWs attitudes and practices than you giving a lecture. You will [illegible] the FHWs from these discussions. The best discussions take place in a group of about 2-5 people, the size of a normal conversation. A group larger than this will naturally split into smaller groups for discussion. You can

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split the FHWs into 2-3 groups of about 3-4 people for small group discussions and allow them a few minutes to agree on possible answers. You can then bring the whole group together again to listen to each others anaswers and have more large group discussion.

Here are examples of some activities you can get these small groups to do.
- discuss a question on what are the different ways of preventing malaria.
- sort out picture cards sinto the right order (like the 5 BCG cards, Lydia cards, danger signs and their management) or different groups
(danger and warning signs)
- use models to sort out a problem like deciding where the latrine should be positioned in relation to houses, river and well.
- deciding how to use the FHW kit at a delivery case.
- doing a role play of a home visit where the group have to decide how best to motivate a mother-in-law on birth spacing who wants more grandchildren.
- making salt and sugar syrup.

The great advantage of this small group work is that ALL the FHWs are doing something and this will improve learning. You os walk round and supervise what each group is doing. Tell the small groups how much time they are allowed for the activity, and when they have finished bring them into the large group again for discussion. Choose one FHW from each small group to explain her groups answer to the question.

<u>Demonstrations.</u>

There are many practical skills in this training course which you will have to demonstrate to the FHWs. Examples of these include handwashing, delivering a baby, cleaning a wound and making salt and sugar syrup. A check list of steps for all thes practical skills which you should follow when doing a demonstration, can be found in the assessment section. During [illegible] is the best way of learning. As the Chinese proverb goes "I hear, I forget, I see, I remember, I do I understand. There is also an Islamic equivalent to this well known proverb "I see a fire, I forget it, I feel the warmth of a fire, I remember it, I touch a fire, I understand it."

1. Prepare necessary items required before hand. These will be listed in the lessons plan for that topic and should be locally appropriate (available in the bazar, cheap and used in the Afghan homes). Every pair of FHWs will usually need one set of items
2. Make sure all the FHWs can see. Arranging them in a circle is the best way of doing this.
3. Explain why this practical skill is important.
4. Demonstrate the practical skill explaining each step, and allowing the FHWs to ask questions (see check list for each.

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step).

5. Ask 1 or 2 FHWs to repeat the skill in front of the others. If they make mistakes, they should keep doing it until they get it right.

6. Get all the FHWs to repeat the skill in pairs, working at the same time with you supervising.

7. Explain the other important information that goes with this skill or example after making SSS you should explain how much to give, how often and how long to continue

8. Ask each FHW in turn to describe the steps and the important information.

Role play

In role plays you and the FHWs take on roles speaking and behaving in the way you think that the person would do in real life Role plays allow the FHWs to test out different ways of trying to change peoples attitudes and behaviour, to prepare them for home visits in their community. You can plan role plays with different characters from the FHWs community including the FHW mothers, mother-in-law, LHV, Group leader, husband etc. Suggestions on role plays are included in the "How to teach this" column and you can adapt these to the needs of different groups. Afghans women love drama and are natural actresses and comediennes. Your problem will be controlling the role plays so that the FHWs learn something from them, rather then enjoying them as pure entertainment The role plays often turn out to be so funny that the FHWs watching laugh too much and miss the health messages. You can also use role plays as a small group activity with 2-3 people in groups doing a role playa at the same time. This is easier for shy FHWs but more difficult for you to supervise.

Here are some tips on doing role plays:

1 Do not use role plays in the first few sessions. Get to know your new group of FHWs first. Then you can select FHWs for the role plays who will not be shy or embarrassed Later in the training the quieter ones can be involved.

2 Start during the role plays with just 2 characters played by yourself and a confident FHW the' can become more complicated later in the training try to have a [illegible] mother [illegible] who believes in all the bad traditional [illegible] [illegible] motivating people to give up these practices

3 Practice the role play in advance if possible and use models [illegible] with the acting. For example if you are role playing [illegible] to get a mother to give up bottlefeeding, use a [illegible] doll or a real baby

[illegible] role play starts which the [illegible] answer afterwards [illegible] questions and do not allow the role play to [illegible] long otherwise the FHWs will get bored.

4 Discuss the role play afterwards and get answers to the questions you asked Ask the people who took part their feelings For example maybe the FHW playing the part of the

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mother bottlefeeding her baby felt very insulted by the advice of the FHW. Experiencing how the receivers of your health messages feel is very useful for any health worker

7. You may want to repeat the role play using different FHWs and perhaps more characters. This role play could be more difficult. For example the bottlefeeding mother could have a mother-in-law who advised her to give up breastfeeding because she thought the women did not have enough milk.

Teaching materials.

There are many different types of teaching materials including real objects, models, dolls, posters, pictures, flipcharts, photographs and flannelgraphs. The teaching materials required for each topic are listed at the begining of the lesson plan under the objectives Real objects are always the most effective teaching materials because the FHWs are familiar awith them. Three-dimensional materials like models are better than two-dimensional ones like pictures. Remember that people who are unable to read and write also have problems understanding pictures. Visual aids are good for starting discussions, keeping FHWs interested in the teaching and helping them remember (Chinese proverb) Any practical skills however should be taught by demonstration using real objects rather than using pictures.

Some teaching materials are also used for problems solving. For example you can use the model of the house compound with latrine and well to help the FHWs decide the safest site for the latrine. They are able to touch and play around with the models. You can ask the FHWs to arrange the BCG pictures in the right order. You can also do this with pictures on a flannelgraph which can be rearranged. You can easily make your own flannelgraph using a length of cloth and pictures with sandpaper strips on the back.

How effective a visual aid is depends on how well you use it in your teaching. It needs to be seen by all the FHWs and also understood by them

Here are some tips on how to use a visual aid:

1. Hold up the picture so that all the FHWs can see it.
2. Ask the following questions to make sure they understand the picture first
   - What do you see in this picture?
   - What do you think this picture is about ?
   - What do you think this is (pointing to different things in the picture).
3. Then explain the picture pointing to different parts.
4. You could make a story giving the people in the picture names
5. It is good if the pictures can be passed round so that the FHWs can discuss them in small groups

To prevent the picture becoming dirty it can be laminated or

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covered in plastic with the edge of the plastic sown . A plastic envelope made in this way, can be used to protect and display your pictures. You can insert the pictures you need just before the session and then replace them with others for the next session.
You can try drawing your own pictures if you think they will help your teaching and then colour them in with crayons. Use your imagination to think of new teaching aids and ask your agency to help you field test and develop them. The best teaching materials are often those developed by people like you who are doing the actual training of the FHWs in the field. Find out what other agencies are using and test them out for yourself. The FHWs may be able to make things for you like traditional Afghan dolls and puppets. Keep an open mind to new ideas and you will never become a bored or boring teacher.

Remember YOU are the best, cheapest, most easily transportable and least likely to be left behind teaching material you have. Use your body to explain your teaching. Here are some examples. Use 4 fingers, with the first coloured red representing the monthly period, to explain the safe period. Arch your body and stiffen your limbs to represent tetanus . Point to the 8 different parts of your body (eyes for measles, mouth for whooping cough . . .etc) to explain the 6 diseases vaccinations protect against.

Stories.

Afghans are great story tellers. Stories are a culturally appropriate way of teaching and assessing the FHWs. There are examples of stories in the reference pages of most topics and you can use these, adapt these or replace them with other stories. They have a newly trained FHW, Kala Jan as the main character. Stories are easy to carry around and can be passed onto others. You should ask questions and have a discussion at the end of the story and encourage the FHWs to pass the story onto their family. You may be a little shy about telling stories at first so why not start by practicing on your own family ? You [illegible] gain confidence and find yourself making up new stories from ideas given to you by the FHWs

Islamic quotes.

Islam encourages healthy living and there are many quotes from Islamic texts to support this in your reference pages for each topic. Using these Islamic quotes with the FHWs is the most effective way of changing their attitudes and practices. Try to use at least one quote in every teaching session

ASSESSMENTS.

Do not start a new topic until the FHWs have understood the previous topic. There is a list of questions to revise the main points at the start of every [illegible] lesson plan. There is also a list of questions for the whole training course on the

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following page. These can be asked at the end of each session the start of the following session and in revision sessions. Every 3-4 teaching sessions should be followed by a revision session. For example if you teach the group 5 days in one wee the first 4 days will be teaching new topics and the fifth da revising the main points of these topics. You can make check lists for each practical skill and home visit and you can use these to assess the FHWs at revision sessions. There are 2 examples of check lists on the following pages. You can use separate lists for knowledge and skills or mix them together. Maxing them together is more like leal life and what the FHWs would do at a home visit. An example of a form used for assessing the work of a trained FHW in the community is also included in the following pages. This is to check her house, kit and some of the delivery cases that she says ssssssssssshe has attended. It is the only effective way of checking the impact of the training course by agencies.

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CHAPTER 4

COMMUNITY DEVELOPMENT

TEACHING OBJECTIVES

1. To describe the concept of health, health promotion, illness prevention and treatment of disease
2. To list components of primary health care
3. To explain 3 types of leaders in the community and why it is so important to get to know them
4. Describe what information is necessary to plan community program
5. Describe how to choose priority health needs along with the comm leaders
6. To identify, list and describe the habits, customs and remedies by families in the MCH program catchment area
7. To categorize habits and customs into health promoting, health endangering and harmless groups
8. Make plans for what to do with each category of customs and habit
9. Explain factors effecting family health, listing 6 points
10. Describe 5 reasons for home visiting.
11. Describe what is health communication and how to communicate to another person to obtain information
12. List 6 steps in planning health communications sessions
13. List 7 health communication methods
14. Describe and practice 6 points for conducting health communicatio sessions

[illegible]

Ability to speak the local language and to pursuade and motivate peopl

Ability to demonstrate how to conduct individual interview, group sessions, and identify village leaders

Knowledge of how to fill in information on record forms, identify usef health practices, harmful & neutral practices

Ability to teach how to identify resources (man, money, material)

Good listener. Encourage involvement.

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ACTIVITIES

1. Interview mothers
2. Collect information about family health habits, home remedies
3. Compile collected information and write findings
4. Conduct health education sessions for mothers
5. Develop health education messages
6. Arrange health talk at MCH Teaching Clinic or community site
7. Prepare charts

Duration:
Two days

REFERENCES

EHP Project Health Technicians Training Guide Book 1, Health Division, Government of Pakistan

TEACHING MATERIALS

Handouts, Transparancies, Posters

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Health Community and Communication.

Sub Topics.

1. What is primary health care ?
2. Component of primary health care .
3. Why is it important to involve community in health car programme ?
4. How to get to know people in the community.
5. What activities can be carried out with community involvement ?
6. How to gather basic information about families in the community.?
7. Guidelines for working with families.
8. What is meant by communication?
9. Steps involved in planning and carrying out Health communication session.
10. Various methods of health education guidelines for conducting health education session.
11. Topic for Health Communication.

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TOPIC : THE NEW CONCEPT OF HEALTH.

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

- In earlier days, and still today, health was views as an absence of illness.

- The World Health Organisation (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 defination 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.

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Factors Influencing Individual's Health.

Socio-economic: employment, education, social status.	Political influences.	Behavior: culture, habits.
	Health of an individual	
Physical environment: air, water, urban/rural sanitation, housing.	Heredity.	Health care delivery system: preventive/protective, curative, - rehabilitative.

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 seperately.

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.

How 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.

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Hereditory influences: We cannot change what we are born with. But the knowledge gained from research has 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 is influenced by culture and habit. For example, the high protein content in a diet, breast-feeding of babies a 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 attitudes for females may negatively affect health status.

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

What is Primary Health Care

1.4 PRIMERY HEALTH CARE.

According to the Alma Ata Declaration of 1978, "Primary Health Care is essential health care based on practical, scientificall sound and socially acceptable methods and technology made universelly accessible to individuals and families in the community through full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country's health system, of which it is the central function an main focus, and of the overall social and economic development of the community. 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, and constitutes the first element of the continuing health care process. (Alma Ata Declaration of 1978, WHO Report, International Conference on Primary Health Care, Alm Ata, USSR Sept. 1978).

To put it in simpler terms: Primary Health Care is the provisior of necessary health services to everyone in the country. The services are not limited to cities only. They are available and assessable to all. Primary Health Care, therefore, is the first entry into the national health system. It is also a part of the overall social and economic development and requires full participation of the majority as well as coordination from other governmental sectors

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The essential elements of Primary Health Care 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 disease and injuries.
8. Provision of essential drugs.

Health Education.	Nutrition	Essential Drugs.	Treatment of common diseases.
Safe water and sanitation.	MCH Care	Immunization.	Prevention & control of disease

Figure 1.3 Elements of Primary Health Care.

The principle of Primary Health Care is to provide essential health and related services to people where they live according to their needs and resources and to help them participate fully in their own care. The staff members from the health sector are also expected to coordinate their efforts with other government-sectors such as the departments of agriculture, education, etc. in order to meet individual, family and community needs. This implies that health sector personnel should also be aware of existing resources and actively participate in utilizing them.

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Types of community leaders.

In any community three types of leaders can be identified. They are (i) formal, (2) informal, (3) Opinion leaders. There are two kinds of formal leaders. There are the official leaders, who are the persons employes 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. Some leaders in this category are respected by the community individuals who are elected or appointed to be leaders of non-governmental or religious organisations such as leaders among landlords (Commander, Chief Sardar).

The second type of leaders are the informal ones. In this group are the natural leaders. These individuals were born with leadership characteristics. The natural leaders may be from either the upper, middle, or lower economic class. They posse 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 housewives, widows, dais, or shopkeepers. In addition to the natural leaders there is an informal category called status leaders. Status means a special respected place for an individual in the group. Status may be given to a person because of:

- Aage.
- Occupation.
- Marriage.
- Wealth.
- Achievements.
- Family History
- Education

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.

These three 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.

It is also important to be aware of formal and informal gatherings and celebrations in the community and to determine if

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some of the health activities could be faoilitated through the

Other respected people in the community.

You will usually learn about people in a community who are wel respected and who, because of this respect, have influence ove others. They are not necessarily the formal leaders in the community. They may be people who have knowledge and skills. O they may simply be people whose experience gives them a positi of respect in the community For example, a women who has many grandchildren may be a source of information and help for youn 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. People in the community usually respect religious leaders and traditional healers and consult them often for advice.

Working with these respected people can make your community health work easier. They know the community's needs beoause th talk with community members so often. They also can introduoe you to people in the community and give needed support to your work. They can influence people to take part in the community health activities. They can shelp increase both your informati sources and the resources to carry out your activities.

Guiding Principles For Working with the Community.

"These guiding principles are:

1. Developing a conscious awareness of the traditional health practices and beliefs observed by the community,

2. Developing health education approaches which build on existing traditional health care practices and beliefs;

3. Initiating and conducting health discussions with the healt need or concern expressed by the family/individuals;

4. Assessing health needs of the family/individual and assigni priorities

5. Limiting health discussions to one or two topics during visit;

6. Providing continuity through regular planned follow up visits."

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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 can[illegible] 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."

Sampling.

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 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 t[illegible] 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

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B.9. Observational Notes for 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 service agencies, grocery stores, pharmacie 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?
- Whome do you see on the streets?
- What animals do you see ?

Hearing.

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

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 of 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 ?

How to gather information about community.

There are several ways you can gather information about community:

1. Your own observation while walking through community using all your senses
2. Review MCHO post/hospital records.
3. Talking to community members.
4. Talking to people in group.

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Your own observations shall give you general overview of community.

B.7. 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
- Counselling individuals or families during home visits on antenatal care, child growth and development and ways to k oneself healthy.
- Keeping household clean
- Participation in some of the ongoing community activities.
- Training of TBA and Female DHWs.

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B.10. VILLAGE PROFILE.

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. Name of Hizb in village

Name:	Head of Hizb.
(1).....	.....
(2).....	.....
(3).....	.....

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

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

5. What organisations are presently working in your village?

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

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

.....

7. Name of Dais working in the village.

.....

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8. What facilities are presently availabale in the village ?

Health Centres....., Schools/Colleges.....Teaching Institutions..... Technical Training Centres.....
Indigenous practitioners.....Medical Stores.....
Other.....Mosques.....Shrines.....

9. What major celebrations are observed in your village ?

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

10. Comments.....

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B-18 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.

1. Income and other economic resources.
2. Size and composition of the family.
3. Education.
4. Customs, habits and home remedies.

1. INCOME: 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.

2. 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 family can be composed of sexes, ages, or generations.

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

3. Education Experience has shown that people who are literate

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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.

4. 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 behaviour passed on from repeated they become traditions. They are very difficult to change and not all of them need changing. As MCH you will have to become familiar with different behaviours 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 also 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 sick dehydrated child with fluids.
- Coming to the MCHO Post at the early signs of illness rather than waiting until it become 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 aways 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 [illegible] and describe them. Then from the list and, [illegible] at 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.

[illegible] HEALTH EDUCATION: COMMUNICATION IN HEALTH WORK.

What is health education and what can be achieved by it?

[illegible] people learn and as [illegible] learning [illegible] habits and attitudes [illegible]. Health educating is achieved by providing necessary information and motivating people to change their behaviour or attitudes leading these to enjoy better health.

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In other words, health information is given to an individual or group so that they will be better informed and change any undesirable or unhealth habits to healthy behaviours 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 & behaviour).

Fig. 3.2 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

B-28 Topics For Health Education.

Topic.	Health education.
Immunization.	Education parents about: -immunizable diseases -doses of immunization -schedule of immunization -value of immunization -side effects
Diarrhoea Control	Counsel mothers on: - What diarrhoea is - danger of diarrhoea and dehydration. - use of ORS and of home remedies to prevent dehydration - need to continue feeding - prevention of diarrhoea
Treatment of minor ailments diarrhoea Worms boils scabies dysentery	- what - how, why and where the disease spreads and how to prevent it - spread of skin infections and - prevention - when to seek referral
Care of emergencies and referrals.	Conduct classes on : - first aid - continued use of ORT on the way to hospital - how to avoid accidents and fires - artificial resuscitation - burns.

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B-27 STEPS FOR PLANNING AND CARRYING OUT A HEALTH EDUCATION PROGRAMME.

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

- Defining the health problems
- Identifying the cause/reason for these problems
- Identifying specific health behaviours which contribute to the health problem.
- Locating the area in which people need to be educated.
- Selecting target groups and schedule for communication activities.
- 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.

B-28. METHODS UTILIZED IN COMMUNICATION FOR HEALTH.

There are many methods and techniques used in education. Each has its own strength and 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.

METHODS OF COMMUNICATION IN HEALTH.

Teaching methods.	Criteria for using the method.
1. Lecture.	- Large group (50-100 persons) providing knowledge
2. Discussion	- A small group of two to ten persons.
3. Demonstration and practice	- A small or large group, when a teacher feels it is appropriate and materials are available
4. Role playing	- Small or large group - Conveying interpersonal communication.
5. Storytelling	- Small group - Transferring new or different ideas and relating them to local behaviour.

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6. Counseling. - One to One
- a small group

7. Games. - Small or large group depending on the game.

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.

Discussion. To discuss means to talk over. Here the participants 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 involvin the group in the process of learning, they remain alaert and interested.

Discussion, when combined with lecture, is very effective. You can present the main ideas one at a time and initiate a discussion by asking questions of the group as well as their experiences on the subject.

Demonstration, and practice Demonstration is a method of showning step by step how something is done. For example to demonstrate the preparation of a supplementary diet for a baby parents must be shown the procedure step by step. After showin 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 availabale 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 tabl is not available use a cloth spread on the ground or use chairs in the home

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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 practioing the newly learned and proper ways of preparing food for babies.
- Give further needed advice.

ROLE PLAYING

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

In the ealth field, we work with people to try to develop new, healthful habits or change old ones. In doing so it is importan 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 like you to face a real situation role playing demonstrate 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 act as the part of another person acting out how 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 or situations develop and where the situation is heading. In the role playing it is important to identify the what is the specific role play designed to teach.

This method can also be used with the villagers to help them understand each and their ways.

Role play is useful for :

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- Developing Communication skills
- Developing social skills
- Developing teaching skills.
- Developing observation skills

STORYTELLING TELLING: 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 and lively. However, to be effective a story should be interesting and relate well to the audience.

COUNSELLING: 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 counselling. The steps involved in counseling are the same as in problem solving; review Chapter 2 for these steps. 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.

GAMES: This usually refers to an amusement or pastime. Games are played by adults as well as children. Because people like to play games, games are becoming more popular as a method of teaching. With this method, people become thoroughly involved and learning takes place easily. You as Health Technicians may know of games that you can use in conveying your messages to the people.

Games like "Snakes and Ladders" have been used in various countries to convey the message of good nutrition, etc. As MCH you need to observe what are the local games and how to modify them and to use them for your health promotion activities.

What is the best method of teaching? There is no single method of teaching that will be effective for all situations. Each method has its own advantages and disadvantages and these have to be considered in choosing for a given situation.

Experience has been shown that acombining more than one method in each teaching session gives better results than using single method alone.

B-28 MATERIALS USED IN HEALTH EDUCATION.

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.

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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 wha you can find in your institution or with Public Health Director

Research findings show that most people retain:

10% of what they read,
20% of what they hear,
50% of what they seen and hear
80% of what they practice.

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
Flannel graphs
Posters
booklets
Slides, films, and overhead projector
Radio & T.V

These materials are called audiovisual aids. Audio refers to hearing and visual to seeing. In this list, T.V & films 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

A - <u>A flip chart</u>

This is a visual teaching aid showing a sequence of charts or 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 donot block the view.

B - <u>Flannel Graphs</u> These visual aids are made of flannel or another fabric with a rough surface and stick to each other. Pictures, words or illustrations made of texstured cloth with sticky material on the back are placed on a board for demonstrations. Flannel graphs can easily be made anywhere.

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

1. A title that is easily understood.
2. An emotional appeal
3. A realistic picture which is better understood.
4. Funny cartoons should be used
5. 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. The procedure for using an overhead projector has been prepared for tutors and is found at the end of this chapter for your information.

6-30 SKILLINESS RULES IN 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 behaviour of individual or group

- Do learn the skills needed to work with other people.

  - [illegible] people
  - Supporting and helping people
  - Finding ways to solve problems together
  - Learning from [illegible] States
  - Learning from each others.

- [illegible] their [illegible] motivate people to bring [illegible] education
  - [illegible] will help in arranging a session.
  - Be reliable and punctual
  - Tell people about the side effects of vaccinations, that is that the injection may cause slight fever in a child.

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CHAPTER 5

HOW TO ESTABLISH AND IMPLEMENT A DAI TRAINING PROGRAM

TEACHING OBJECTIVES

1. For the participant to understand the important elements required to plan and implement a Female Health Worker (Dai) Training Program, including:

   a. Motivating the community
   b. Selecting the FHWs
   c. Conducting interviews on knowledge, attitude, and practices
   d. Training of trainers
   e. Recruitment and selection of dai trainees
   f. Course curriculum and use of materials
   g. Training sites
   h. Recordkeeping and reporting
   i. Refresher training
   j. Monitoring and evaluation
   k. Dai kit and resupply
   l. Supervision

2. To identify potential problems and tentative solutions to setting up the program under cross-border circumstances

TRAINERS SKILLS

- To be able to demonstrate hand washing
- To be able to prove the existence of microbes
- To be able to demonstrate preparation of ORS solution

ACTIVITIES

- To name, places where microbes are present
- To explain how to avoid microbes
- To explain signs and symptoms of tetanus
- To explain how to manage a child who has diarrhoea

DURATION

Two days

TEACHING MATERIALS

Female Health Worker Trainers Manual
"Topic for Dai Conversation"
Van den Bongart, Petra and Janson, Anaika, "An interview (KAP Survey) with Kamilla, An Afghan Traditional Birth Attendant "unpublished, Afghan's Health and Social Assistance Organization, Peshawar, Pakistan, 1989.
FHW Trainers Manual

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TOPICS FOR DAI CONVERSATIONS

A. PERSONAL DATA

1. Name
2. Age
3. Ethnicity, language used/understood
4. Marital status
5. Husband's/son's occupation
6. Number of years in this location
7. Number of children
8. Household composition
9. Socio-economic status of household

B. THE DAI'S CAREER

1. Do you/others call yourself a dai? Why/why not?
2. How long have you been a dai/birth attendant?
3. Why did you become a dai/birth attendant?
4. From where/whom did you learn this skill?
5. Who are your patients (relatives, friends, everyone)? Where do they live?
6. How many babies do you deliver each month? How many babies have you delivered altogether?
7. Do you like your work? Why/why not?

C. PRENATAL CARE

1. How can you tell that a women is pregnant? How does a pregnant women behave?
2. Can you tell if it is a boy or a girl? Can you tell if it is twins?
3. What kind of prenatal care do you give? (diet, message, etc.)
   - Why?
   - Where do you administer this?
   - Cost/charge?
4. What do you do about cases of prenatal bleeding?
   - Medicines? Where do you get these from?
   - How do they work?
   - Advice? Why?
   - Special methods? Why?
5. What do you think causes prenatal bleeding?
6. What do you do if a women has a miscarriage? Later bleeding?
7. Is pregnancy a dangerous time? If so, why? Are there any things a pregnant woman should or should not do?

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D. LABOUR/DELIVERY

1. How are you informed about an approaching delivery? Do you go alone? What if it is in the middle of the night? Would you go with a stranger?
2. If it is the first baby does a woman usually return to her father's house? If so, why?
3. What do you take to a delivery? What does the family provide?
4. How is the room where the baby is born prepared? How do you prepare yourself for a delivery (wash hands, change clothes, etc.)?
5. Is the delivery done in a lying-down position or squatting? Which do you think is better? Why? What do most women prefer? Why?
6. What do you do while you are waiting for the baby to arrive?
7. What do other family members do? Who else is usually there? Do they help you?
8. Do you talk with the mother a lot? What do you say?
9. What do you do in the case of prolonged labour? Do you have any medicines? Do you ever break the water sac?
10. When the head emerges, what do you do?
11. When the baby is out, how do you make the baby cry? What do you do if it doesn't?
12. When do you cut the cord-before the placenta come out or after? How do you cut the cord? With what? Do you clean this? With what do you tie it? Do you say anything special?
13. Who gives the baby the Aazan?
14. How do you speed up the expulsion of the placenta? What do you do with it? What do you think its purpose is?
15. Are deliveries of male babies different than those of female babies? If so, How?
16. Have you ever seen any difficult cases? Breech (feet-first)? Shoulder-first? Premature infants? Abnormal babies? What do you do in these cases?
17. What do you do in cases where you have extreme difficulty in delivering the baby?

E. POSTNATAL CARE

1. Who do you tend to first - the mother or child? Why?

MOTHERS

2. How do you help her right after birth?
3. How do you stop cases of postnatal bleeding? Is this bleeding good or bad?
4. What do you do in cases of perineal tears? Do you have any special medicines?
5. When does the mother take her ritual bath? Do you help? What is she washed with? Why?
6. Do you prescribe any kind of postnatal diet? If so, what do you prepare food for the woman yourself?

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7. When is breastfeeding began? If colostrum is not given, What is given to the baby first? Why? Why is colostrum thought to the bad?
8. How can a mother increase her breast milk if it is not enough?
9. How often do you go back to a home after a delivery?
10. Do you give any kind of a massage? What about medicines or the woman's head, teeth, stomach, etc?

INFANT

11. What is the child washed with right after birth? Why? Who does this?
12. Is any massage given? Nose, head, etc?
13. How do you take care of the navel? How long after birth does the cord fall off what do people do with the cord? Why?
14. Do people bind the child? Why?.
15. Why do you think is the best time to sunnat (circumcise) the baby boy? Who does this? Why? How about girls?
16. Do you treat infant illnesses? what? How?
17. How about the baby's diet? When do you think weaning should begin? What foods etc?
18. Are there any difference in care of a boy baby/girl baby?
19. What do you usually receive for all of your delivery services? Money? Kind? Does this vary with the birth of a boy or girl baby? If so, how?
20. Does yo wash afterwards? Why?

F. FERTILITY REGULATION

1. Have you heard of any medicines that women take to help them become pregnant?
   If so, what?
   How does it work?
   Are any sex-specific?
2. Have you heard of any medicines that women take to help them avoid a pregnancy?
   If so, what?
   How does it work?
3. Why do you think people would want to avoid a pregnancy?
4. Have you heard of any modern methods to avoid a pregnancy?

G. OTHER ACTIVITIES

1. Do you do any other kinds of health-related work? If so, what?
2. How about undernourished babies and children? Do you ever treat these? How? What do you think causes this condition?.
3. Do you do any other kind of work (sew quilts, etc.)?

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H. GENERAL HEALTH CONDITIONS OF VILLAGE

1. What are the most common illnesses in your community (for men, women, children)? Seasonal variations?
   What do you think are the causes of these illnesses?
2. Have you seen cases of oblige (tetanus)?
   What do you think causes this?
3. What do you think could be done to improve the health of the people here?

I. MODERN-TRADITIONAL MEDICINE

1. Do you use any modern medicines/techniques for your patients? If so, what?
   why?
   Where did you learn about this?
   Where do you get your supplies?
2. What do you think is good/bad about modern medicines?
3. What do you think is good/bad about traditional medicine?
4. Can you tell us about the ideas of hot and cold?

J. THE HEALTH CARE SYSTEM

1. Do you know any other dais around here?
   Who?
   Where?
   What do you think of their work?
   Do you ever talk with them?
2. Do you know any pansaris around here?
   Who?
   Where?
   What do you think of their work?
   Do you ever refer your patients to them/buy things from them for your dai work

   ALSO ASK FOR:
   hakim
   nye
   bonesetter
   bloodletter
   boner, etc.

3. (same as above) -- compounder
   LHV
   doctor
4. When you yourself get sick, what do you do?
   To whom do you go? why?
   When were you sick last? With what? What did you do?
5. How about your other family members when they get sick, what do they do?

DAI TRAINING NEEDS, ETC

1. Would you like to have some training in your midwifery work?
2. What do you think would help you in your work?
   Some more supplies? what specifically?
3. What would be the best time during the day to talk/work with you?
4. Tell us what you've heard about the Dai training programs? What do you think about them?

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V. DAI TRAINING

1 OBJECTIVES:

Participants will be able to understand the hand washing way of 'DAIS'.

At the end of this topic participant will be able to diagnose and manage a child with diarrhoea.

Participants will be able to diagnose a tetanus disease and how to cut a cord

Participants will know the importance of breast feeding and mother's need to extra food during pregnancy and lactation.

2. SKILLS

To teach the Dais by their native language

To encourage the students that why diarrhoea protection is necessary.

To encourage the participants to the importance of tetanus.

To encourage the participants to the importance of breast feeding and mother's need to extra food during pregnancy and lactation.

3. ACTIVITIES:

To explain what is Microbe, by the using of posters and films.
To demonstrate hand washing practically and to repeat hand washing by participants.
To explain diarrhoea by the using of posters
To know how to prepare a ORS packet and how to prepare ORS solution from salt & sugar
To explain tetanus disease shortly (use posters)
To explain how to cut cord
To explain how to favor a pregnant women
To explain how to encourage the pregnant mothers to take TT vaccines
To explain the importance of breast feeding and the importance of mother need for extra food during pregnancy and lactation.

4 DURATION: Five days

5 Reference: UNHCR TEACHING MANUAL FOR FHWs.

6 TEACHING MATERIALS: UNHCR Manual, handout, films and posters.

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2. TOPIC: MICROBES AND HANDWASHING (1 CLASS SESSION)

OBJECTIVES:

By the end of this class, the students will be able to:

1. State that microbes cause many illnesses.
2. Describe how microbes cause disease.
3. List at least 3 ways to protect themselves against disease.
4. Explain the importance of handwashing with soap.
5. List 6 important times for hand washing.
6. Demonstrate correct daily handwashing technique.

By the end of this class, the trainer will be able to:

1. Describe the traditional beliefs of the students regarding the cause and treatment of sickness in their family/community.

SKILLS:

1. Correct daily handwashing technique.

LEARNING ACTIVITIES:

- Demonstration / return demonstration.

EVALUATION:

- Observation of return demonstration.

KNOWLEDGE:

1. The role of microbes in the cause of disease.
2. The importance and timing of the use of soap.

LEARNING ACTIVITIES:

- Question and answer
- Discussion
- Explanation
- Islamic quotes
- Visual aids
- Stories

EVALUATION:

Question and answer.

MATERIALS:

1. Stories flip chart
2. Alcohol
3. Cotton wool
4. Nail clippers, 7 nail brushes, 7 bars of soap, 2 clean towels
5. Magnifying glass.

[illegible]:

1. Handwashing basin and water jug, water
2. 2 drinking glasses made of clear glass.
3. Salt.

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2. TOPIC: MICROBES AND HANDWASHING

INTRODUCTION.

- Ask the women about their families.

- Review the purpose of this training.

MAIN POINTS.	HOW TO TEACH THIS.
1. Traditional health beliefs.	
Many Afghans think that most sickness is due to one of these 4 causes: 1. God's will. 2. Balance between hot and cold (foods, medicines, etc.). 3. Jinn (spirits). 4. The evil eye.	- Ask if it is nice to talk about one person in your family who become sick, what you think this sickness was caused by, and how the person was treated? *Discuss this. Show an interest in their traditional treatments. 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. Islamic quotes 1-5.
2. MICROBES CAUSE MANY SICKNESSES.	
1. There are tiny worms we cannot see that get into our bodies and make us sick. They are called microbes.	-Show picture of microbes and microscope (hygiene flip chart number 1 and 2).
2. These microbes live everywhere, especially in dirty things. If we eat, drink, or breathe these microbes or let them get in a skin wound, we will become sick if our body is not protected.	-Do you know what these are? *Afghans think small worms called "chinjai" (Pushtu) or "kerm-e-dendon" (Dari) make people ill. Use this as an example to explain microbes.

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MAIN POINTS.

HOW TO TEACH THIS.

*Explain that microbes cannot be seen, yet cause sickness.
- Rather like Jinn, who attack people when they are weak (e.g. young, thin, pregnant).

*Where do microbes live?
*Explain that microbes live everywhere -- hair, nose, skin, hands, nails, feeding bottles, pacifiers clothes, household items, sputum, and especially in dirt and feces.
*Put a pinch of salt in a glass of water and ask the women to taste it. [illegible] at it (could compare to plain glass water).
*Explain that microbes are like the salt: we are unable to see them in water, food, and air, but they are there.

*How do [illegible] make us sick?
*Use the 4 F's --FLUIDS, FOOD, FINGERS (good or bad/dirty or clean), FEEDING BOTTLES (can used diarrhoea flip chart picture), FLIES and FECES.
- Eat food with dirty hands.
- Drink bad water.
- Eat dirty food.
- Suck on dirty bottle nipples or pacifiers.
- Dirty clothes/chadors.

[illegible]
If we eat, drink, or breathe in these microbes, or let them get in a skin wound, we will become sick if our body [illegible] protection.

How do [illegible] water, hands, bottle nipples get dirty?
*FLIES and FECES (hygiene flip chart numbers 8 and 9).

[illegible]

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MAIN POINTS.	HOW TO TEACH THIS.
	*Flies are our enemies, not our friends.

3. HOW TO PROTECT OUR BODIES FROM [illegible] IN MICROBES.

We protections against disease:	-Islamic quote 6.
-- Make people [illegible] on the inside: [illegible] nation.	-How do you protect your family from sickness?
-- Make people [illegible] the outside: clear practices that decrease the spread of microbes in the community. [illegible] hand washing, [illegible] rubbish disposal, clean water, etc.)	*[illegible] traditional protection like tawiz, khol, special prayers. (vaccinations are similar to tawiz.) *Explain that some of these are [illegible] be [illegible] with [illegible] cleanliness [illegible] vaccinations and clinic visits.

[illegible] Power of handwashing.

Soap kills these [illegible]. We must wash our hands with water AND soap.	-How can we kill microbes every [illegible] *Explain that soap kills microbes. Although Muslims wash 5x/day, they do not usually use soap. *Soap and water are friends in the fight against disease. [illegible] -Ask one women with clean looking hands if she thinks they are clean. * Rub cotton wool soaked in [illegible] over her [illegible] then ask the women the dirt. (/4)

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MAIN POINTS.	HOW TO TEACH THIS.
	-Look at the women's hands. Use a magnifying glass to look at the dirt under the nails.
	-Choose a woman with dirty hands. Wash her hands in water, and pour the water into a glass. *Compare with a glass of clean water and ask the women which one is clean. *Explain that the dirt from our hands will contaminate anything we touch.
The women must do the following to keep their hands clean. 1. Keep nails cut short. 2. Scrub hands and nails with brush. 3. Wash hands with soap and water.	Show the women how to cut their nails and to brush and wash their hands(Islamic quote 8/hygiene flip chart 4 and 5). *Divide the women into pairs and ask them to repeat the demonstration. *Check that all the women have short nails and clean hands *Explain that they should begin to cut the nails of babies as soon as they are long.
Women must also keep the hands and face and bottom of children clean.	[illegible] to wash the hands and face of a child

5. Important times for handwashing.

[illegible] with [illegible] Important times. 1. [illegible] preparing food. 2. [illegible] feeding children. 3. [illegible] baby 4. After washing [illegible] (young children will have [illegible]). 5. After working. 6. [illegible] a baby [illegible] before cutting the [illegible]	[illegible] their [illegible] they are not washing their hands at the right times, they will be the main source of sickness within their families.
	Emphasize that mothers have a big responsibility to keep clean (especially their hands) for the health of their whole family.

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MAIN POINTS.

HOW TO TEACH THIS.

-When are the most important times to wash hands to protect us from [illegible]
•E[illegible] times. Get the women to [illegible] them.
•Discuss the handwashing before prayers. E plain that this does not kill all the microbes because soap is not used.

-How often should we cut our nails?
•E plain that a good time for cutting the nails of all their family is every Friday before Jumma [illegible].
-Islamic quote [illegible].

-Tell Hassan's story.(see Appendix A.)

[illegible] VIEW OF MAIN POINTS.

[illegible] the women if they have any questions.

[illegible] the women to discuss the following questions and choose several of them to answer.

1. Malalai 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 Malalai on protecting her bab, from sickness"

2. Ahmad is 7 years old and [illegible]. His mother is well known in the community for not keeping a clean house. What [illegible] to Ahmad's mother to help Ahmad from [illegible] time"

[illegible] me what you [illegible] the women should [illegible] handwashing to [illegible]

[illegible] what are the important times for washing hands?

[illegible]

[illegible] women in [illegible] you will regularly check their hands during [illegible] and their nails are [illegible] they can use great your hands.

[illegible] the women in their family always has a supply of soap. They [illegible] the hands of all the women and children, [illegible] and their [illegible] children in [illegible] every Friday they

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should organize [illegible] something special for their family. Ask them to tell Hassan's story to their family.

-If possible, distribute bars of soap and nail brushes to all your students.

[illegible]

1. Health is the most important thing given to man by God after Islam.

2. The Prophet (PBUH) said that God has not created a single disease without creating a treatment for it.

3. [illegible] is bad than the weed. (Hadith Sharif).

4. Life is a gift of God.

5. If the women say that sickness is God's will, explain that God gave humans a mind so that we can use it to help prevent and treat sickness. [illegible] humans death higher than animals.

6. There is no bigger sin than neglecting your dependants. Protect your children and women from disease will save you from doom on Judgement Day. (Hadith Sharif).

7. [illegible] sickness. This is why [illegible] to wash almost half [illegible] 5 times a day.

8. The cutting of nails is a trait of fitrah (Hadith Ibn Imran).

9. The Prophet (PBUH) cut his nails every Friday before Jumma [illegible]

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3. [illegible] (class session)

OBJECTIVES:

By the end of this class, the students will be able to:

1. Describe and demonstrate the signs of tetanus.
2. Explain the [illegible] of tetanus.
3. Describe 2 protections against tetanus.
4. List the "4 CLEANS" of cord care necessary at delivery for the prevention of tetanus and infections to mother and baby.

By the end of this class, the trainer will be able to:

1. Describe what the students have seen or heard regarding cases of tetanus.

2. Describe the traditional beliefs and practices of the students regarding tetanus.

3. Describe the traditional methods used by the students for cord care.

[illegible]:

1. The cause, [illegible] and prevention of tetanus.

TEACHING ACTIVITIES:

- Question and answer
- Discussion
- [illegible] explanation
- Demonstration/return demonstration
- Islamic quotes
- Visual aids.

[illegible]:

- [illegible] and answer.

[illegible]:

1. [illegible] with tetanus and a pregnant women receiving tetanus immunization.

[illegible]

INTRODUCTION.

- Ask the women about their families.
- [illegible] the [illegible] of man, illnesses' how?
- [illegible] protect ourselves [illegible]
- [illegible] what [illegible] is the use

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3. TOPIC TETANUS.

MAIN POINTS.	HOW TO TEACH THIS.
1. The signs of tetanus.	
Signs of tetanus in the newborn: 1. Baby stops sucking at about 5 days of age. 2. The face and body become stiff. 3. Arms or legs make jerky movements. 4. Back arches in spasms. The baby usually dies about a week after the signs develop.	What sicknesses do babies die from in the first 2 weeks of life in your community? * Discuss this. * Describe the signs of tetanus to the women. Show picture and use your body to help. Find the local name they use (Subtanziar (Dari) * Have you seen babies (or adults) with this sickness? * How do you treat this sickness?
2. Traditional beliefs on tetanus.	
Newborn babies dying from tetanus are fairly common in Afghan communities. It is thought to be caused by Jinn or God's will or by something bitter the mother has eaten.	What do you think is the cause of tetanus? *Discuss this. Show an interest in their answers and use them for explaining microbes later.

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MAIN POINTS.	HOW TO TEACH THIS.
3. How tetanus is caused.	
Tetanus in newborn babies is caused by a special microbe in dirt getting into the baby's body through the cord in 4 ways: 1. Women delivering on a dirty surface (earth, dirt, cloth). 2. Cutting the cord with dirty hands. 3. Cutting the cord with a dirty instrument/tying cord with dirty cord ties. 4. Putting dirty things on the cord or perineum (eg khol, ashes, henna, cow dung, or dirty dressing, or dirty feet near perineum during pushing).	- Can you remember what is the cause of many sicknesses from the last class? * Microbes in dirty things * At birth, microbes in dirt get into the baby's sbody through the newly cut cord. * Can you think how this happens? - Show the women how the microbes get in through the cut cord using the model baby and cord: dirty knife, khol, and a dirty dressing. *Explain that adults and children can also die from tetanus microbes that enter wounds after injury. *How do you care for the cord traditionally? -Discuss this. -Afghan dais traditionally use non-sterile scissors, knives, and stones to cut the cord. They put ashes, khol, henna, cow dung, burnt clothes, grease on the cord after cutting it.
4. The 2 protections against tetanus.	
The 2 protections against tetanus are: - [illegible] 4 [illegible] to stop [illegible] becoming [illegible] at delivery. - [illegible] of women and children. A newborn baby can be protected from getting tetanus by these	-Once again, what are the 2 protections against disease from the last class? *Discuss making people stronger on the inside AND on the outside. Islamic [illegible] (protection) *2 of the inside and outside protections prevent tetanus cleanliness and vaccinations -Write notes 2-4.

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4. CLEANS:

1. CLEAN SURFACE.
   - Doing delivery on a clean surface using clean plastic sheet/clean cloth.

Explain that anyone can get tetanus microbes through an open wound, and that the cut cord is like a wound. Remind them how microbes get into a wound.

2. CLEAN HANDS.
   - Doing special handwashing just before the delivery and again before cord cutting.

3. CLEAN CUTTING INSTRUMENT.
   - Cutting and tying cord with a blade and thread that have been boiled for 20 minutes early in labor.

-Briefly discuss the "4 CLEANS" (more at next training session).

4. NOTHING DIRTY ON CORD.

A newborn baby can be protected against tetanus if there is a good vaccination programme in the community. The women can help make the programme good by sending the following 3 groups for vaccination at the RHU.

1. All infants.
2. All children under 2 years.
3. All females of childbearing age.

-Explain that vaccinations help the body fight microbes. If both the mother and the baby are vaccinated, the baby will receive double protection against tetanus microbes.

-Ask to see the vaccination cards of women and children in the house to check that they have been vaccinated.

-Tell the story of Fameeda and Nasreen to the women. (See Appendix B.).

REVIEW OF MAIN POINTS.

Ask the women if they have any questions.

Ask the women to discuss the following questions and ask several of them to answer.

1. [illegible] your body, to show me the signs of tetanus in a baby.

2. [illegible] baby died of tetanus when he was 10 days old. The women in the house who delivered the baby did not know what caused tetanus. Oh, do you think Hamida's baby got tetanus?

3. Hamida is very worried that her next baby will also die from tetanus. She hears that you are getting special training from the clinic and calls on you for advice. What can she do to protect her next baby from getting tetanus? (Demonstrate with cord, and other supplies)

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CONCLUSION.

- Ask the women to teach all the women in their family what they can do at a delivery to prevent tetanus.

- Ask the women to find out if all the women of childbearing age and children under 2 years in their family have been vaccinated. They can bring the vaccination card to the next class for the trainer to check.

- Ask the women to tell the story of Fameeda and Nasreen to their families.

ISLAMIC QUOTES.

1. Protecting your women and children from sickness will save you from doom on Judgement Day.

2. Cleanliness is next to Godliness.

3. God loves those who keep themselves pure and clean. (Surat 11, Verse 222).

4. Cleanliness on the outside is indicative of cleanliness on the inside.

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4. [illegible] DELIVERY/SPECIAL HANDWASHING/CORD CUTTING
(1 CLASS SESSION)

OBJECTIVES.

By the end of this class, the students will be able to:
1. List [illegible] steps for a clean delivery.
2. List the "ALLRAUN" of cord care necessary at delivery for the prevention of tetanus and infections to mothers and bab
3. Explain the correct procedure for sterilization of blade an cord ties.
4. Demonstrate special handwashing technique to be done just before delivery of a baby, and again just before cutting the cord.
5. Demonstrate the correct procedure for cutting the cord.
6. Explain daily cord care after it is cut.

By the end of this class, the trainer will be able to :

1. Describe how the students traditionally deliver a baby.
2. Describe the traditional methods used by the students for cord cutting and tying.

SKILLS:
1. Special handwashing before deliver, and cord cutting.
2. Sterilizing the blade and thread.
3. Cutting the cord.

LEARNING ACTIVITIES.
Demonstration/return demonstration
- Use of models / visual aids.

EVALUATION:
Observation of return demonstration.
Question and answer.

KEY POINTS:
1. The role of microbes in the cause of disease.
2. The importance and timing of the use of soap.
3. The cause and prevention of tetanus.
TEACHING ACTIVITIES.
Question and answer
Case study.
Discussion
Islamic quotes.

EVALUATION:
Question and answer.

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MATERIALS:

1. Plastic sheet

2. Clean cotton cloth to deliver baby onto

3. Doll, cord, placenta

4. 6 cord ties already made from sewing thread and 3 small cotton pieces (approximately 6x5 inches in size)

5. Sterile razor blades

6. Nail clipper, nail brush, soap, clean towel

From students house.

1. Handwashing basin and water jug , water

2. Small cooking pot with lid.

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4 [illegible] CLEAN DELIVERY. SECTION [illegible] CORD CUTTING.

INTRODUCTION.

- Ask the women about their families. Are any of the women pregnant in their families? If [illegible] who will deliver her baby?

  When are the [illegible] important times to wash your hands with soap?

- Review the cause of tetanus.

- What are the 2 protections against tetanus?

  Who should be vaccinated?

- What are the "4 CLEANS" for delivery?

MAIN TOPICS:

1 Clean delivery.

HOW TO TEACH THIS.

- Who delivers babies in your village in Afghanistan? Dai? Family member? Are there dais?

- Who has helped at the birth of a baby before? How many times?

- How do you know when the baby will be born very soon?
  * 3 ways:
  1) Pains come very frequently (start over, 2-2 1/2 minutes).

  2) Mother wants to push.

  3) You can see or feel a little bone of the baby appearing at the birth opening (perineum).

- How do you deliver the baby?
  * Discuss this. Position? Afghan men do not traditionally see the perineum or control the delivery of the baby.

- Do you remember what is the cause of many sicknesses?
  * Microbes [illegible] things.
  * At birth, microbes in dirt can get into the mother's and baby's body and cause infection
  * [illegible]
  * Explain the 4 steps for a clean delivery.

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MAIN POINTS.

The women should prepare for a clean delivery following 3 steps:

1. Lie mother on clean plastic sheet.
2. Deliver the baby, with clean hands washed in the special way.
3. Deliver the baby onto a clean cloth.

HOW TO TEACH THIS.

* Discuss the importance and responsibility of the women who delivers a baby.
  Islamic quotes 5, 6 and 8.

- Demonstrate special handwashing procedure:
  *Cut nails short.
  - Islamic quote 7.
  * Remove rings and bangles.
  * Roll sleeves up to elbows.
  * Brush nails and hands with soap and water.
  * Wash hands and arms to elbow with soap and water (also feet if put to perineum at birth).
  * Dry hands in air/ do not use towel or chador (more likely to be dirty).
  - Islamic quote 9.

* Do not touch anything until after baby is delivered and cord is cut.
  -Demonstrate by leaving room and coming back, opening the door with your elbows.

REPEAT:

Prepare for a clean delivery:
1. Lie mother on clean plastic sheet.
2. Deliver the baby with clean hands washed in the special way.
3. Deliver the baby onto a clean cloth.

- Demonstrate how to do a clean delivery following the 3 steps.
  * Get one of the women to put doll and placenta under her dress, so you can demonstrate the delivery.

[illegible] care of [illegible]

The women should remember the "4 CLEANS" when caring for the cord:

1. CLEAN SURFACE.
   [illegible] deliver, [illegible] clean [illegible] plastic [illegible] clean cloth [illegible] dried on ground).
2. CLEAN HANDS.
   -Doing [illegible] of handwashing [illegible] cutting.

[illegible] again, how do you usually care for the cord at delivery?

Do you remember the "4 CLEANS" [illegible] when [illegible] deliver-[illegible]

*Discuss these again. What do these "4CLEANS" prevent?
*Why should cloth/clothes for delivery [illegible] dried on the [illegible]

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CORD CUTTING INSTRUMENT
Cutting, tying, and cleaning cord with a blade, thread, and cotton piece that have been boiled for 20 minutes, early in the labor.

Potential SIDE EFFECTS: Cord.
Example: [illegible] ashes, [illegible], cow dung, dirt, [illegible] ing, or dirt. Feet near perineum during pushing.

- How can you make sure your cord cutting/tying equipment is sterile?
  - Discuss how to sterilize the equipment early in labor.

- Put equipment in a metal container [illegible] full of water and put on fire.
- When bubbles appear, put lid on and boil for 20 minutes, if possible (or 5 minutes at absolute minimum).
- Remove from heat and leave to [illegible] lid on.

- How will you time 20 minutes?
  - With a watch.
  - The time it takes to perform evening prayers.
  - Put a few grains of rice in the water and wait for them to go soft. [illegible] touch rice --color change when it is soft.
- Which equipment should you should you sterilize early in labor?
  - Sterilize 6 threads rather than [illegible] (in case they get dropped, become unsterile, or twins arrive).
  - Also sterilize 5 cotton cloth pieces approximately 5x5 inches in size (to clean baby's eyes, mouth, nose, and cord).
  - Use a new unwrapped razor blade for each delivery, then throw it away [illegible] place after use.
    - Should not be used again because of risk of hepatitis from blood contamination.
- Demonstrate how to cut cord, using doll and cord.
  - Do special handwashing again.
  - Wait until cord goes white and thin and stops pulsating. (Exceptions: cord tight around neck or baby not breathing.)
    - 1 finger breadth
    - [illegible] finger breadths
    - [illegible] finger breadths
    - [illegible] tight to stop bleeding
  - Pierce sterile blade, not touching cutting edge.

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*Cut cord between second and third knot (leaving 2 knots on baby's side).
-2 knots act as safeguards against baby bleeding if one knot becomes loose.
-knot on placenta side of cord prevents blood getting everywhere.
*Clean the cord with the sterile water and one small cloth piece from metal container.

Ask the women to return the cord cutting demonstration.

3. Cord care after it is cut and before it falls off.

Tetanus microbes live best in wet places with little air such as tight, bandaged cord dressings and deep, dark skin wounds like the freshly cut cord. Therefore, the cord should be kept short, dry, and open to air.

- How do you take care of the cord after it is cut and before it falls off?
*If they wash and dress the cord, explain that boiled water should be used and that a new, clean dressing should be loosely placed every day.
*Explain that the BEST way is to keep the cord dry and open to the air and why.
-Do not put anything on the cord!
*Cord can be loosely covered with the baby's kameez or a light cloth put over the cot if there are flies around.
*One Afghan custom of extending cord upwards with a thread around baby's neck is good.
-Reduces soiling from urine and stool.
*Cord normally dries and falls off after 5-10 days.

- Do you do anything special with the dried cord?
* Some Afghans believe that if they bury it, Jinn will not attack the baby.

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REVIEW OF MAIN POINTS.

- Ask the women if they have any questions.

- Your daughter is in labor. Her pains are now very close and she wants to push. You are going to deliver her baby:

  1. Show me what you would do to prepare for a clean deliver
  2. Now the baby has been born. When will you cut the cord?
  3. What would you do before cutting the cord while waiting for the cord to go thin and white and stop pulsating?
  4. When and how have you prepared the instruments for cutti and tying the cord?
  5. Show me how you will cut and tie the cord.
  6. Tell me how you will take care of the cord each day afte delivery before it falls off.

CONCLUSIONS:

- Ask the women to teach all the women in their family about a clean delivery and cutting the cord.

ISLAMIC QUOTES

1. God loves those who keep themselves pure and clean.(Surat

2. The Prophet's (PBUH) unmarried daughter, Fatma, assisted a a delivery. The family did not know who she was until afte the delivery.

3. Protecting your women and children from sickness will save you from doom on Judgement Day.

4. Cleanliness is next to Godliness.

5. God loves those who keep themselves pure and clean. (Surat 11, Verse 222).

6. Cleanliness on the outside is indicative of cleanliness on the inside.

7. Cutting nails short is a trait of Fitrat.(Narrated by Ibn Umar).

8. Keep your clothes free from stain. (Surat LXXIV, Verse 4).

9. The Prophet (PBUH) would never dry his hands after washing them before a meal. After eating he would then use a towel;

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JESTIONS TO ASK THE VHS REGARDING VHS MODULES

Personal Hygiene and Sanitation

1. What are the prime health messages for Personal Hygiene and Environmental Sanitation?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the VHS to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

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B. Control of Diarrhoeal Diseases

1. What are the prime health messages for Control of Diarrhoeal Diseases?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the VHS to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

Expanded Program on Immunization

1. What are the prime health messages for Expanded Program on Immunization?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the VHS to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

. Nutrition

1. What are the prime health messages for Nutrition?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the VHS to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4 Assessment Team's Comments

Common Cold & Pnuemonia

1. What are the prime health messages for Common Cold & Pnuemonia?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the VHS to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

. Safe Motherhood

1. What are the prime health messages for Safe Motherhood?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the VHS to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4 Assessment Team's Comments

Accident Prevention & First Aid

1. What are the prime health messages for Accident Prevention & First Aid?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the Trainer to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

MINISTRY OF PUBLIC HEALTH
MCH DEPARTMENT
VHS PROGRAMME QUESTIONNAIRE

of VHS Trainer

er's name

.c/Post #

of evaluator

of evaluation

Commander's name

Party

Province

District

Village

NTRODUCTORY QUESTIONS TO ASK THE VHS TRAINER

1. Are the clinic/post staff familiar with the VHS program?
   Yes No
   If no, why not?

. Has the VHS program been introduced to the community?
   Yes No
   If yes, to whom and how? If no, why not?

. Has there been any reaction against this program?
   Yes No
   If yes, by whom and how?

. What has been the reaction of the informal (traditional) health providers to this program?

. Has the catchment area been mapped?
   Yes No
   (Ask to see the map.) Is the map complete with symbols, date, distances, etc.? Yes No

Has VHS recruitment and selection started?
Yes No
If yes, how? If no, why not?

Which modules have been taught to the VHSs? According to which timetable?

Has the trainer received the due number of kits, ORS, and other teaching materials?
Yes No
How many kits have been distributed and when were they issued?

Has the trainer completed the VHS Report form (no. and location of other health facilities in area, type and location of traditional practitioners, no. and location of schools, etc.)
Yes No

r's Remarks:

nent Team's Comments:

QUESTIONS FOR THE TRAINER RELATED TO THE MONITORING, REFERRAL, AND SUPERVISION SYSTEMS

. MONITORING SYSTEM

1. Has an initial Monitoring System been established yet?
   Yes No
   If no, why not?

2. Does the trainer know how to use the monitoring tools properly?

Type	Good	Needs Improvement
a. Monthly monitoring tool		
b. 6-month-summary M tool		

3. Comments

REFERRAL SYSTEM

1. Has any referral system been initiated yet?
   Yes No
   If no, why not?

2. Where and to whom do VHSs refer patients?

3. Comments

SUPERVISORY SYSTEM

1. Has an initial supervisory system been established yet?
   Yes No
   If no, why not?

2. How is supervision conducted? (direct/indirect)

3. Does the trainer know how to use the VHS Supervisory Review Form?
   Yes No
   If no, what is confusing?

4. Comments

EVALUATION

1. Does the trainer know how to use the data collected through the monitoring tool and the supervisory tools to evaluate the performance of the VHS?
   Yes No

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)UESTIONS TO ASK COMMUNITY

In order to complete this section of the questionnaire, ask the VHS :rainer about who has been contacted in the community and informed ıbout the VHS program or refer to the VHS catchment area report form. leet several of these people and ask them the following questions.)

ı. Name and position of community member:

1. What is your understanding of the purpose of the Volunteer Health Sister program?

2. Are you in favor of this program and how can you support its expansion and acceptance?

3. Do you foresee any difficulties in expanding and maintaining this program and what solutions would you offer?

. Name and position of community member:

1. What is your understanding of the purpose of the Volunteer Health Sister program?

2. Are you in favor of this program and how can you support its expansion and acceptance?

3. Do you foresee any difficulties in expanding and maintaining this program and what solutions would you offer?

)DITIONAL REMARKS ABOUT VHS PROGRAM

(Evaluator's Signature)

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JESTIONS TO ASK THE TRAINER REGARDING VHS MODULES

Personal Hygiene and Sanitation

1. What are the prime health messages for Personal Hygiene and Environmental Sanitation?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2 (Ask the Trainer to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c Discussion		
d. Lecture		
e Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4 Assessment Team's Comments

I. Control of Diarrhoeal Diseases

1. What are the prime health messages for Conotrol of Diarrhoeal Diseases?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the Trainer to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

D. Nutrition

1. What are the prime health messages for Nutrition?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the Trainer to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

G. Accident Prevention & First Aid

1. What are the prime health messages for Accident Prevention & First Aid?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the VHS to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4 Assessment Team's Comments

:. Expanded Program on Immunization

1. What are the prime health messages for Expanded Program on Immunization?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the Trainer to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

. Common cold & Pnuemonia

1. What are the prime health messages for Common cold & Pnuemonia?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the Trainer to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

F. Safe Motherhood

1. What are the prime health messages for Safe Motherhood?

Prime Message	Complete	Accurate	Needs Improvement
a.			
b.			
c.			
d.			
e.			
f.			

2. (Ask the Trainer to demonstrate teaching this module. Evaluate the teaching methods used.)

Teaching Methods	Good	Needs Improvement
a. Role-play		
b. Demonstration		
c. Discussion		
d. Lecture		
e. Question & Answer		

3. What kind of teaching aids were used for this module?

Type	Good	Needs Improvement
a.		
b.		
c.		
d.		
e.		
f.		

4. Assessment Team's Comments

VI. TO KNOW CLINIC MANAGEMENT

1 OBJECTIVES:

At the end of the session participants would be able to understand what is planning:

To understand what is the plan cycle?

To understand what is the district health plan?

To organize the work to be done

To organize of work at the RH. (RURAL HEALTH CENTER).

To support other health workers.

To know the structure of district health services.

To know health information system

2 SKILLS

Be able to [illegible] good management by good teaching how to [illegible]

3 ACTIVITIES:

[illegible] plan

To [illegible]

[illegible] plan [illegible]

[illegible] the an organized and disorganized clinic [illegible]

4 [illegible]

One day

5 Reference HEALTH CENTER ADMINISTRATION & MANAGEMENT FIRST [illegible] WRITTEN [illegible] UNIVERSITY OF [illegible]

6 TEACHING MATERIALS:

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HEALTH CENTRE ADMINISTRATION & MANAGEMENT.

SECTION [illegible] PLANNING.

WHO IS PLANNING?

Planning is about thinking ahead. It is something which we all do in our daily lives. For example, if you live in Mutare and want to travel to Harare, what do you do? Probably you decide whether you want to travel by bus or train, or may be you will look for lifts. It will depend on circumstances. You will take [illegible] for the journey and perhaps some food and drinks, and [illegible] at the bus [illegible] into a case [illegible] and preparing [illegible] are [illegible].

[illegible] steps of planning and these are illustrated [illegible] example. The steps are expressed as questions.

[illegible]

1. Where do we want to go to?

2. How will we get there?

3. How will we know that we have arrived?

///

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In the example [illegible] know that we are in Mutare, but in other kinds of planning this first step is not always obvious. Where you want to go? Harare but you [illegible] be more specific, perhaps you have to be there by a certain time. For example, before you set off you decide whether to travel by bus, train or [illegible]. Your decision will be influenced by the time you want to [illegible] you have, the time available, and so on. Finally, [illegible] you have arrived in Harare, you may evaluate your journey: perhaps you travelled by train but it arrived [illegible] hours later; and decide next time to go by bus. This gets us back to where you began - the planning cycle.

You can apply this planning approach to any situation in the provision of health services, however great or small. Using the [illegible] planning [illegible] is [illegible] useful in developing the national [illegible] programme as it is in the building of a single flair toilet. We are now going to look at how these steps may be used in planning Primary Health Care. This approach should make your work more efficient and more satisfying and will give all health workers a sense of purpose in what they are doing.

The Planning Cycle.

1. WHERE ARE WE NOW ?
Knowing our problems and health priorities.

2. WHERE DO WE WANT TO GO ?
Setting target for our work.

4. HOW WILL WE KNOW THAT WE HAVE ARRIVED ?
Monitoring [illegible]

IS THE COMMUNITY INVOLVED AT EVERY STEP ?

3. [illegible] THERE ? [illegible] of action plan.

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Health Centre Administration & Management.

The District Health Plan.

[illegible] would have its own district health plan, which is drawn up [illegible] year. This should consist of targets and an action plan for the whole district. To make these plans District Health Staff will use the information coming from the health centres and [illegible] account the opinions of health workers and the community. Every health centre should have its own plan which incorporates the district plan but which has targets modified to local circumstances, and its own special targets [illegible].

[illegible] health [illegible] the timeline of the health [illegible] between the community, or the district level. If the district plans to follow the genuine needs of the people then the PHC worker must know, understand and represent them.

STEP 1 - WHERE ARE WE NOW ?

WHERE ARE WE NOW ?

THE PEOPLE in the AREA.

THE CATCHMENT AREA.

Every PHC serve people from a certain area, which may cover [illegible] of several wards. It may include communal areas, [illegible] townships or resettlement areas. There may be [illegible] far [illegible] difficult to cross such as rivers and [illegible]. People living [illegible] may come to a RHC on [illegible] than another RHC.

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[illegible] some time you will probably [illegible] people live. Discuss this [illegible] with the local people and note the addresses which are written [illegible] (HIS). From your knowledge of the area try to draw a sketch map of the area your RHC serves. The community sister will help you do this if you are having difficulty and she may [illegible] printed maps of the area.

Use a large [illegible] paper [illegible] as the back of an old poster. [illegible] draw the map on. [illegible] should have a key and scale. [illegible]

[illegible] main villages, farm compounds [illegible] served, roads, schools, business centres, [illegible], deep and mountain, include your outreach centres.

[illegible]

THE PEOPLE YOU SERVE

When you know what areas the RHC serve you should try to [illegible] total number of people who live there. It will be [illegible] possible to be completely accurate but it is important to try [illegible] sources of population figures - the 1982 census [illegible] accurate : a detailed breakdown [illegible] available. The district council will also have figures [illegible] when the VIDCOS and SADCOS units were started in 1985 but [illegible] people not actually living in the area. Village health workers may have counted the people in their vil[illegible]

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You can also make an estimate of the population from the number of children entering grade 1.

The number of children entering grade 1 is about 3% of the total population of the area served.

Example if there are 7 schools in the area	
School A 1[illegible]	grade 1 entrants
School B 10[illegible]	" " "
School C [illegible]	"
Total [illegible]	
Estimated population = 705 ÷ 10 = 10.167	

In practice it is best to use more than one method to get the best estimate. The community sister will help you with this. Sh should also have access to sources of date listed above. All th RHC's population figures in the district should add up to the total estimate for the whole district.

Remember that the population is increasing, so you must allow for this. How fast it is increasing is called the GROWTH RATE o the population. The growth rate is roughly the same as the birthrate minus the death rate : this is only strictly true if there is no migration of people in or out of the area.

These rates are expressed as percentages per year. The population growth rate of Zimbabwe is [illegible]% per year. This means for every [illegible] people in the population, after a year there [illegible] 10[illegible]. [illegible] are sometimes also expressed per 1000 people per year [illegible] 3% per 100 [illegible]

Example [illegible] area served estimated at 10.167 in 1987.

In 1988 the population will be

$$\frac{10.167 \times 3}{100} + 10.167 = \underline{10.47[illegible]}$$

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AGE STRUCTURE OF THE POPULATION

When you know the total population for the area served by the RHC, you can [illegible] the numbers of people in each age group. This is very important because it gives the numbers in certain target groups. Target groups are [illegible] adults or children at whom particular health services are directed. For example children under 1 year are the target group for the primary [illegible] of immunizations, women aged 15 - 45 years (child bearing [illegible]) are the target group for family planning and maternity services.

You can calculate the numbers of people in different age groups [illegible] for the whole of Zimbabwe. The National [illegible] or at least estimate it a particular area. For [illegible] in some communal areas there are many more women than [illegible] for [illegible] be given different percentages for your area. If not, use the [illegible] percentages.

[illegible]	[illegible]	Example.
All ages	100 %	11.250
Under 1[illegible]	4 %	11.250 x 4 / 100 = 450
Under 5[illegible]	[illegible]	[illegible] x 20/ 100 =2.250
Under 15[illegible]	[illegible]	11.250 x 50/ 100 =5.625
Women aged [illegible] 45	[illegible]	11.250 x 20/ 100 =2.250
Child bearing age		

The number of children under 1 year is about the same [illegible] (this means the total number of live births per year in the area is 450 also).

POPULATION SIZE.

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[illegible] will [illegible] the [illegible] that [illegible] available in every step in the [illegible] [illegible] [illegible] important in working [illegible] [illegible] [illegible] (step 4).

[illegible] CHARACTERISTICS OF THE POPULATION YOU SERVE.

[illegible] need to [illegible] what kind of people they are. What religious [illegible] they, [illegible] what [illegible] occupations and so on. [illegible] help you to know about [illegible] portant [illegible] and so on.

[illegible] MAJOR HEALTH PROBLEMS.

[illegible] will know the common health problems for which people attend [illegible] [illegible] from your out-patient sheets (T-[illegible]) and monthly [illegible] (T-[illegible]) [illegible] [illegible] [illegible] what percentage of [illegible] [illegible] [illegible]

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You also [illegible] problems you have when you try to provide health [illegible] problems and complaints which come from the people.

Example of Health Care Problems.	
Problems	Notes.
No Midwife at the clinic.	[illegible] 1st of June. The council has not advertised the post.
No telephone at the RHC	Nearest line 5 km away.
No sugar and salt to make up ORS.	No body will pay for them.
Shortage of essential drugs. Orders now placed monthly.	

DEFINE PROBLEMS.

[illegible] the problems [illegible] down, then discuss them at your Health Centre Committee meetings.

Decide

* how serious the problem is
* how serious the problem is
* how much can be done about the problem.

[illegible] these questions, make a priority list of the problems which you could attempt to deal within the coming [illegible] making a list with the most important problem [illegible] the next most important one is numbered 2 [illegible] District Health Team meeting.

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[illegible] Administration & Management.

STEP 3. WHERE DO WE WANT TO GO ?

WHERE DO WE WANT TO GO ?

HEALTH CENTRE.

[illegible] step [illegible] is to set targets. Having targets [illegible] overall purpose and direction [illegible] your work, and should [illegible] that you are dealing with the important problems. Targets may be a percentage or a number. But they may also be anything that health workers can work towards achieving.

Make sure that your targets are :

- Clearly written, so that everybody understands what they mean and what is to be done.
- Possible to achieve : they should not be too ambitious or costly.
- [illegible] so that you know if they are being met.

[illegible] for the whole country, the Province, the [illegible] The targets that are most [illegible] and [illegible] should be happy with the [illegible] of a target for the people it serves before they [illegible] it.

[illegible] the major health problems [illegible] the people [illegible] local circumstances.

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[illegible] Management.

:Examples of Targets.
:
: [illegible] 47% of under 1's against the 6 target
: [illegible] year.
:
: * To have [illegible] toilet completed for every 5 familie
: in the [illegible] year.
: * [illegible] 80% [illegible] antenatal patients to be delivered
: either at the health centre or by a trained traditional
: midwife in the next year.
: * For the [illegible] to [illegible] one full day, with each
: village [illegible] year.
: [illegible] the RHC
: [illegible]
: * To start an MCH, FP outreach point in Chinyanga Village
: [illegible] next year.
[illegible] targets [illegible] when they are to be met
[illegible] be measure
[illegible] the next year.
:
: This is unrealistic, and is also badly written since it is
: not clear what exactly is involved. To eliminate bilharzia"
: [illegible] better [illegible] as an overall goal".
:
: * To give all [illegible] mothers iron tablets during preg-
: nancy.
:
: This may be inappropriate if anaemia during pregnancy is
: not a common problem [illegible] (not in most parts of Zimbabwe).
: It is not based on the needs of the people but on an idea
: of "what [illegible] for them
[illegible]
[illegible] of the RHC activities (immuniza
tion, MCH, [illegible], water and sanitation, etc.) Do not be too
ambitious or set too far targets. Limit yourself to 5 to 10
[illegible] targets once per year and more often if
[illegible]
[illegible]
:Example
: [illegible] set a target to immunise 80% of under
[illegible] how many children you have to see per month or
[illegible]
[illegible] under
[illegible] or more
:

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:Thus if your [illegible] at least 360 under 1's should
:be given the primary course of vaccines. This means that an
:average of [illegible] children per month should complete their
:primary course.
:
:To complete the primary course of immunizations you need to
:see the child [illegible] times. So you should see 30 [illegible] 5 = 150
:children each month. This is 35-40 children each week.
:

: DISPLAY YOUR TARGETS IN THE BOX. WRITE THEM BOLDLY ON TO A
: BIG NOTE.
:

Do not just file them away! Next to this note should go anot
to show what progress you are making towards your targets. L
graphs and [illegible] show you (see step 4 Page 14).

[illegible] OR GET THERE

HOW WILL WE GET THERE ?

PREVENTION OF ENDEMIC DISEASES	EDUCATION	IMMUNIZATIONS.
NUTRITION.	HEALTH CENTRE.	SAFE WATER.
PROVISION OF ESSENTIAL DRUGS.	MATERNAL AND CHILD HEALTH INCLUDING FAMILY PLANNING	TREATMENT OF COMMON DISEASES AND INJURIES.

The next step is to decide how to achieve each target. This is called preparing an Action Plan. The health staff should discuss [illegible] for each target and write down what they agree [illegible]

[illegible] follow when you write an [illegible]

1) Examine the target. See if it is something completely new or [illegible] improving on what you already do. Look at the [illegible] previous years. Look at how you could improve [illegible]

[illegible] support is available at [illegible] what must you order. If the target is on the [illegible] with plan the community sister should be arrange [illegible] development. If you need transport [illegible] district level.

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(3) Decide who [illegible] the different tasks that need to be done and what skills are required. Match the skills required to the staff available. Try to make best use of different people's level of training and abilities. If someone needs extra training then discuss this with the [illegible].

(4) Decide how [illegible] will require [illegible].

This is part of monitoring (see step 4) but it is important from the beginning to make sure that you are collecting any necessary data.

(5) Write [illegible] when [illegible] necessary equipment should be [illegible], [illegible] take place and so on. [illegible] You may need to [illegible] how you use time in general (see page 19).

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STEP 4 - HOW WILL WE KNOW THAT WE HAVE ARRIVED ?

HOW WILL WE KNOW THAT WE HAVE ARRIVED ?

It is not always easy to know if we are meeting our targets. We [illegible] have to measure progress in some way which is called monitoring. A monitoring system must be included in the Action Plan for every [illegible]. Choose something that you can measure and record regular[illegible] [illegible] progress towards the target frequently. It is to late to do anything if you only review progress at the end of the year.

The information [illegible] collect under the health information system [illegible] used to [illegible] progress towards your targets. It is [illegible] the health services you offer.

From time to time [illegible] must evaluate the effectiveness of what you are doing, to help you to improve your work in future. Evaluation may be by outsiders [illegible] health workers themselves, the [illegible] information [illegible] more than [illegible]

A sample of Monitoring [illegible] target is

To immunise at least 80% of [illegible] under 1 s against the 6 [illegible] during the next year.

[illegible] under 1 that [illegible] and [illegible] the number of cases of each disease that [illegible] recorded on the EPI [illegible] the out patient tally sheets, T2, and [illegible] Here we will [illegible] vaccine.

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:Taking the example where the catchment area of the RHC has
:a population of 11,250.
:
:4 % are under 1 - 450
:
:80% of under 1's is 360
:
:360 is the target for the year - 360 divide by 12 = 30 per month

[illegible] MANAGEMENT

This section is about some of the daily activities of a RHC. We include specific activities like writing a duty roster for the Staff. But we also look more generally at how you can organise your to run more smoothly and efficiently.

ORGANISING THE WORK TO BE DONE.

The following statement was made up, but perhaps could have been said by the nurse-in-charge of RHC in Zimbabwe.

"I'm so busy here, there is so much to do. Every day there are so many outpatients to be seen and treated. Immunization are to be done . I've not got time to weigh all the under 5's . We ran out of DPT vaccine yesterday. I forgot to check it, and have had to send an urgent request for some to the district hospital. Two of the village health workers came complaining that they did not have any [illegible] to give us some from the clinic stocks, although these are [illegible] visited last week and [illegible] enough health education although I do not know how she expects us to find the time. She also complained that we had not kept our inventory upto date."

[illegible] do you [illegible] think of this statement ? How would [illegible]

[illegible] how to spend our time at work is very important . Look at the different tasks the nurse talked about. How many of them could she have to do herself ? How many could she delegate to certain staff provided she taught and supported them.

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Example .

List the tasks as follows:

Tasks the nurse must do	Tasks she should delegate to untrain staff to do under supervision with training.
See and treat outpatients.	Weigh under 5's
Immunization.	Check vaccine stocks.
Supply VHWs with medicine	Health Education
Order drugs	Inventory.
Checking the emergency trolley etc.	Sterilising instruments etc.

Delegation is necessary in order to give qualified health workers the time that they need for jobs that they have to do. Delegation may also strengthen the interest of the other staff. But you must delegate responsibility. You must be happy that the one you delegate to has the ability to do the job; and you must support him or her doing it. There are certain tasks (such as prescribing treatment) which you should not normally delegate.

Work planning is aimed at applying the planning approach to everyday work. The target is to make the best use of the time that is available and the skills that people have. In this example it does not seem as if the nurse has thought about how she can do this. She has not given people responsibility for particular tasks so these tasks are not getting done.

You need a list of all the tasks that must be done daily, weekly, monthly or at the health centre in order to plan work [illegible]

Example

List the Tasks as follows.

Tasks which should be done daily	Tasks which should be done weekly	Tasks which should be done monthly.
Outpatients examination	Check drug stocks & expiry dates.	Consolidate tally sheets. Monthly returns. Progress reports.

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Outpatients treatment	Check vaccine supplies.	Drug & contraceptive stock taking and ordering
Weighing	Thoroughly clean all floors & high dusting	Vaccine stock taking & ordering
Immunization		
Health Education	Outreach EPI.	Meet with community Health workers Meet traditionally midwives.
Steam Sterilizing of needles & syringes etc:	Checking of emergency tray.	Attend ward Health sub committee (WaDCO) meeting
Preparing swab		Discuss progress towards meeting targets with the other health workers
Health information System (Tallying)		Defrost fridge
Sweeping and dusting	Domiciliary Visits	Attend DHT meetings
Check EPI fridge & gas cylinder		Duty Roster
		Check Chronic Diseases Register.

It is worth spending some time on this. The district communit[illegible] will help you and will discuss it with you. What are the m[illegible] important tasks? Who can be delegated to do which particular tasks? Does everyone know what tasks they should be doing?

The staff at rural health centres and clinics should be able [illegible] They should meet [illegible] regularly at lo[illegible] ([illegible] than an hour)[illegible] record of the meeting[illegible] note book. At this meeting staff should discuss the [illegible] will do what. They should also look [illegible] particular problems that may have cropped up which they nee[illegible] to solve.

Problems may be with health or health care services. Write dow[illegible] problems [illegible] which ones are the highest priority[illegible] or solved. Write [illegible] what.

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: For Example.

: Kulapo Council Health Centre - 19th March, 1989.

Problems for attention:	Action:
:A - No spare gas cylinder for EPI fridge.	Mr. Mulasa to contact DHSA
:B - Broken window at labour ward.	Miss Mpofu to contact Council
:C - No polish for the floors.	Contact Council.
:C - No EPI tally sheets.	Contact community sister.
:B - Adrenaline - pines this month.	Return to District Hosp. Order resupply.
:A - Water line not working well.	Contact DDF (Mr. Mulasa)
:B - 2 suspect cases of whooping cough in Chese Areal.	Health assistant to follow up
:C - Grass around RHC needs cutting.	Caretaker.
:B - Mrs Daniel (CHW) reports a very underweight child in Chiringa Areal has not come for weighing for 3 weeks.	Home visit by Miss Mpofu

---

[illegible] not normally have as many problems as [illegible].

[illegible] the most urgent problems "A" and the least urgent "C". [illegible] must deal with the "A" problems immediately, but you can postpone the less urgent tasks until you have more time. When you list problems like this, you can easily see what you must do [illegible]

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ORGANISATION OF WORK AT THE RHC.

The way in which you organise the RHC is important when it comes to making work more efficient.

Discuss with [illegible] staff, better how you can make best use of your available space.

Remember to have:

* Sheltered waiting area.
* Privacy in consultation
* Do MCH and O [illegible] patients work in the same area (supermarket approach). An examination couch should be available in the room.
* Separate the treatment room from the consultation area
* Try to have an entrance and exit to each room to allow for flow of patients.

SUPPORTING OTHER [illegible] WORKERS.

Part of the responsibility of nurses at RHC's is to support other health workers notably nurse aides, VCW's and traditional midwives . By "support" we mean to help and encourage others with the aim of improving their work. We do not use the word "supervision" [illegible] it implies authority, and to use it may discourage a team approach. Nurses should observe and, where necessary, correct other health workers. This should be done through explanation and discussion wherever possible.

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[illegible] Management.

[illegible] important to [illegible] support [illegible]. For example, if nurse aides or volunteers weigh and chart [illegible] if it is done properly? The only way to [illegible] work and to see how [illegible] on writing a [illegible] performed by nurse aides. In weighing under [illegible] this might be as follows:

Example	
[illegible] to weighing under 5 [illegible]	
Weighing accurate ?	
[illegible]	
Explanation given to mother	
Immunization [illegible]	
[illegible] correctly filled in	

After you have [illegible] discuss with her [illegible] Always start with a positive point [illegible] be practical in front of patients. Explain your criticisms because giving orders is not helpful. People who [illegible] do not understand well [illegible]

[illegible]

When you work with VLWs and TMs it is even more important to [illegible] and TM's are [illegible] there are many things that [illegible] before you discourage a [illegible] or even beneficial. [illegible] tion for a child [illegible] supported on a "durl" or [illegible] position than lying flat (as done in [illegible] the labour!

[illegible]

[illegible] FACTS	[illegible]	LOCAL GOVERNMENT STRUCTURE.

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THE STRUCTURE OF DISTRICT HEALTH SERVICES.

It is important that staff follow correct lines of communication. If people do not follow then nobody will know wh is doing what. Many problems which could be dealt with at the peripheral level [illegible] for the Provincial Medical Office or the Ministry itself. Also if you by pass staff you undermine their position.

GOVERNMENT RURAL HEALTH CENTRES.

[illegible] managed by the District Health Executive (DMO, DNO, Administrator, [illegible]) with assistance from the Provincial Medica Office. All administrative matters are dealt with within the health structure, these include: leave applications, collection of treatment fees, maintenance of buildings and disciplinary matters. The District Community Nursing Sister deals with these [illegible] in the first instance, in conjunction with the district health service administrator, (if there is one).

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[illegible] Centre Administration & Management

HEALTH INFORMATION SYSTEM RETURNS.

MONTHLY RETURNS.

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 [illegible] returns.

5. ZIII: Vaccination forms.

These forms should reach the District Health information Office by the 5th of the following month.

A copy of each form submitted should be kept on file at the RHC along with the daily check and out patients register.

Remember it is [illegible] data and should be used in monitoring the work you are doing (see page 14).

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QUARTERLY REPORTS.

You should also submit a short written report every 3 months to the DMO through the Community Sister and DNO. This report should not be long and should repeat previous reports only where really necessary. For example if the RHC has a water supply problem you do not need [illegible] a full description of the problem every [illegible] Instead [illegible] briefly [illegible] the water supply -- still drawing from the well in the [illegible]. NO progress ". Concentrate on changes that have occurred since your last report. Emphasise achievements as well as problems. The following is a suggested outline for quarterly reports.

RHC Quarterly Reports

Brief introduction

Summary of statistics for the last 3 months.

- out patients.

- MCH & FP.

Discuss any deaths.

Progress towards targets in the health plan.

Comments (if any) on diseases seen

RHC: health care delivery problems.

VCW (or RHC) and TM report.

Report on Health Care Committee meetings.

Other meetings attended/community matters.

Any other issues.

ANNUAL REPORTS.

Every year you must submit a more comprehensive (annual) report. [illegible] and problems on achieving targets in the health plan. [illegible] copies of charts and graphs if appropriate. [illegible] should not exceed [illegible] sides of A4 paper.

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VII. REGISTRATION

1. OBJECTIVES:

At the end of this session participants will be able:

How to fill in MCH different cards and forms

The importance of Registration

2. SKILLS

Be able to describe clearly that how to fill in this forms cards and how to keep these forms and cards safe.

To encourage the participants to the importance of Registration

3. ACTIVITIES:

To explain MCH different forms & cards and using of them.

To fill in these registration documents by participants practically

4. DURATION:

One day.

5. REFERENCE:

MCH RECORDS.

6. TEACHING MATERIALS:

MCH different cards and forms.

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LABOUR RECORD کارت ولادت

تاریخ ولادت	
جای ولادت	
کمک کننده	وظیفه کمک کننده

وقت ولادت	نورمال	۲۴ ساعت بعد از وقت ولادت	خانم وقت ولادت را نمی داند

طریقه ولادت	نورمال ولادت	سیزارین	سقوط حبل السری	نورسپنس	طفل به پا	وغیره

مرحله سوم	پلاسنتا نورمال	سیاه خون مبایه	کشیدن پلاسنتا توسط دست

طفل	زن	جنس	حال		
			نورمال	عیب نورمال	مرده

توسط دوا - ولادت غیر نورمال - وغیره

POSTNATAL VISIT ملاقات بعد از ولادت

تاریخ	
وزیت	

	بلی	نه
تب دارد		
ناف نورمال است		
طفل به کلینک راجسته شده		
واکسین BCG شده		
عمر طفل		

تعلیمات طبی	طریقه شیر دادن	
	تغذیه طفل در ماه چهارم	
	تطعیمات واکسین	

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طفل و مادر کدام تکلیف داشته باشد

ANTENATAL

نمرهٔ کلینک :
نمرهٔ مسلسل :

سم :	عمر :	ولایت :
ت :	ولسوالی :	
سم	قریه :	

	پسر	دختر
داد اطفال زنده		
داد اطفال مرده		
اطفال نوتولد شده مرده		
داد سقط ها		
دحاملگی		

آخرین عادت ماهوار	
سال آخرین ولادت	
میعاد متوقع ولادت	

TT5	TT4	TT3	TT2	

	بلی	نخیر
زیاده تر از آن حاملگی		
Forceps		
لات پلاسنتا در حمل آخری Placenta Complication In previous delivery		
حاملگی های سابقه		
Ceasarian Section		
Neona مرده و سابق باز یک زیادتر		

	بلی	نخیر
تاریخ معاینه		
طول قد خانم		
وزن خانم		
پای شل، پولیو و دیگر سوء اشکال حوصله		
تشنگی شدید ، امراض شکر ،		
مرده زیادتر از ۴ هفته		

خون ادرار در دوران حمل					
بلند بودن فشار از					140/90 mm Hg
شدید گی در دو قسمت چون					
اندازه عمر رحم					1 P C M
بزرگ بودن بطن					
داز قلب جنین					
وضعیت جنین					BR TR VX
اندازه Hb در صورت کم خون					
موجودیت طوکز در ادرار					
موجودیت پروتین در ادرار					
معاینه بلغم					

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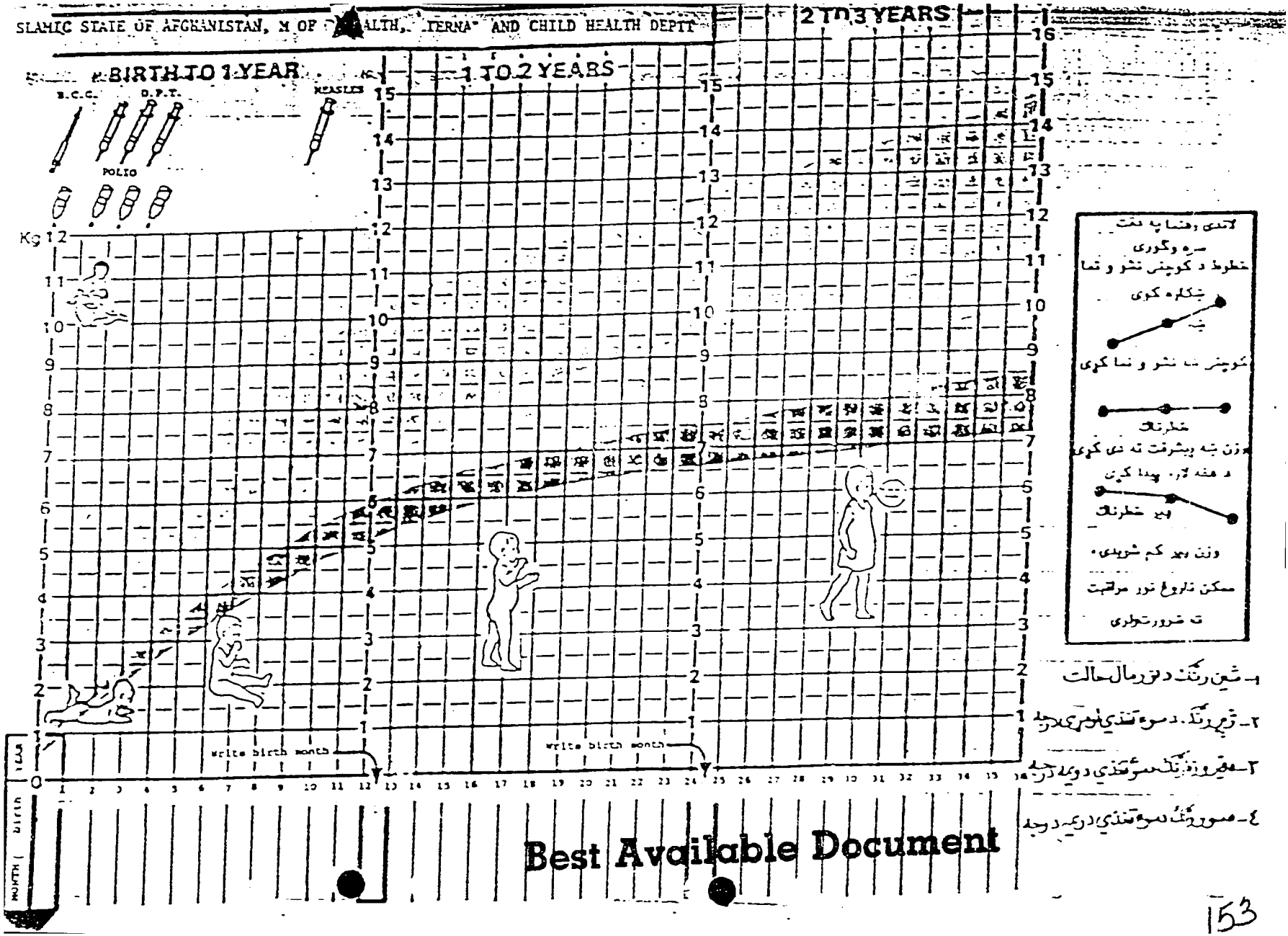
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CHILD HEALTH CHART

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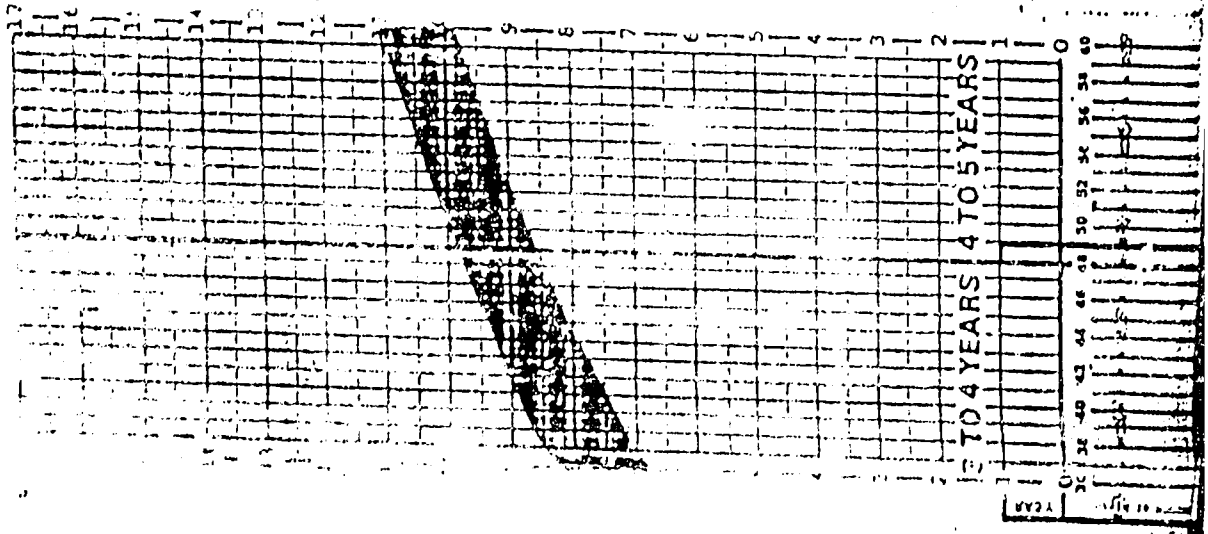

VIII. HEALTH EDUCATION

1. OBJECTIVES: At the end of this session the participants will-

   1) Understand the purpose of health education.

   2) Be able to develop health education messages appropriate to the local beliefs and customs in order to effectively change behaviors which effect people's health.

   3) Demonstrate effective health education techniques for individuals and groups.

2. SKILLS. To encourage the participants to the importance of health education.

   To have good communication

3. ACTIVITIES: The participants will be divided into groups Each group will be given a different topic related to MCH (e.g. prenatal care, nutrition, immunization, oral rehydration). Each group will develop messages and demonstrate effective communication techniques for their topic.

4. DURATION. One day.

5. REFERENCE: EDUCATION FOR HEALTH: MANUAL HEALTH EDUCATION & PRIMARY HEALTH CARE.

6. TEACHING MATERIALS: Handout, posters.

HEALTH EDUCATION.

1. Introduction.

2. What is health education:
   - 2.1 Purpose of health education
   - 2.2 Changing people's attitudes and practices, as well as their knowledge.
   - 2.3 How people learn
   - 2.4 Communication.
   - 2.5 Literacy.
   - 2.6 Helping people learn.
   - 2.7 Situations for health education.
   - 2.8 The distinction between education and training.

3. Health education techniques
   - 3.1 Question and answer
   - 3.2 Health talks
   - 3.3 Demonstration
   - 3.4 Stories.
   - 3.5 Using poems, proverbs and quotes from religious books
   - 3.6 Visual aids
   - 3.7 Audio aids
   - 3.8 Dramas and puppet shows
   - 3.9 Discussion
   - 3.10Other methods (Role play etc, formal lectures)

4. Techniques for training
   - 4.1 Role plays
   - 4.2 Field visits
   - 4.3 Audio visual aids

5. Contents of health education messages
   - 5.1 Relevant, practical, appropriate, positive
   - 5.2 Messages
   - 5.3 Priority topics/messages
   - 5.4 Child growth
   - 5.5 Breast feeding
   - 5.6 Immunization
   - 5.7 Control of diarrhoeal diseases
   - 5.8 Personal hygiene and environmental sanitation
   - 5.9 Acute Respiratory Infections and Tuberculosis
   - 5.10 Maternal care
   - 5.11 Malaria

6. Health education in schools
   - 6.1 Introduction
   - 6.2 Reasons for health education in schools
   - 6.3 Suggested curriculum
   - 6.4 Teaching and learning

7. Useful Reference materials

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HEALTH EDUCATION.

1. Introduction.

Education for health is one of the eight essential components of primary health care (PHC). It is perhaps the most important component, because it is also a part of all the others and because it promotes community involvement in health care and self reliance.

This chapter explains what health education is and how it should be carried out within the Afghan Refugees Health Programme (ARHP).

2. What is health education?

2.1 Purpose of health education

The purpose of health education is to promote health through improved health practices.

One of the basic principles of PHC is that to improve health, people must be directly involved in taking action themselves, in their own families and communities, to adopt healthy behaviour and ensure a healthy environment.

Health education should inform people not just about facts relating to health but also about their own potential for acquiring better health through their own efforts; this enables people to take responsibility for their own health.

2.2 Changing people's attitudes and practices as well as their knowledge.

Health education is more than just giving information or advice about health. A women may know that immunizations prevent certain diseases but unless she and her children are fully immunized at the correct time, they will not be protected against these diseases. Health education must change people's behaviour, and this means changing their attitudes and practices as well as their knowledge.

Encouraging people to change their attitudes and practices requires considerable skill and understanding on the part of health educators. Health educators, themselves, need to understand what people think and do awith regard to health problems, and why . They must then use a variety of techniques to help people understand their own situation and problems better and choose actions which will improve their health.

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For example, a mother s existing practice may be to feed her child only with breast milk for the first year of the child's life.

The attitudes underlying this practice may include any, or all, of the following:

- fear that other foods will upset the child's stomach,
- unwillingness to do anything differently from local tradition,
- pride in the role of the mother as the sole source of food,
- respect for koranic instruction about breast feeding.

The knowledge which underlies this practice is that breast milk is the best food and that feeding children other foods is a difficult and risky business. This information is perfectly true, but it is incomplete. The mother lacks the knowledge that introduction of other foods, though difficult, is essential.

Health education can add to this knowledge by explaining about supplementary foods, why they are important, when they should be started and how they should be given.

This explanation or information alone may not be enough to change the mother's attitude. She may not understand or remember the new information. She may not feel confident to try something new: she may be willing, but be faced with strong opposition, scorn or criticism from older relatives. The child itself may reject the new foods. So she will not change her practice.

In such a case the attempt at health education has not been successful.

In order for health education to be successful, people must:

- understand the health education messages,
- believe the health education messages,
- perceive how the messages relate to their needs,
- remember the health education messages,
- change their attitudes,
- and then put athe new ideas into practice.

Traditional teaching methods tend to emphasise telling people new information. These are based on the methods commonly used in teaching children in schools. But teaching adults is fundamentally different from teaching children because adults already have much more life experience and this has formed their existing knowledge, attitudes and practices. Health education with adults is about changing existing health behaviour and not just teaching some new facts.

Therefore health education requires a very different approach to teaching and also a greater understanding of people. Section 3 covers some different teaching methods which be used to make health education more effective.

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2.3 How people learn

Most knowledge, attitudes and practices relating to health are not learnt through the formal education system (ie at school) - indeed, most Afghan women and a lot of the men have never been to school.

People learn from many other people as well as teachers, and people learn in many other situations as well as formal lessons.

These are some of the ways in which people learn:
- their own experience
- observation
- thinking
- solving problems that arise in everyday life
- formal lessons
- making mistakes and realizing what they did wrong
- reflecting on past experience
- adapting past experience to new situations.
- listening to other people
- reading books, newspapers, magazines and instructions leaflets
- listening to the radio
- watching TV and videos

These are some of the people they learn afrom:
- parents
- other family members
- friends
- teachers
- people observed in the community
- colleagues at work
- elders in the community

Formal lessons given by teachers are only one of the wide range of situations in which people acquire new knowledge, skills and attitudes.

This point needs to be reflected in our health education practice:

- Participants can learn from discussion with each other as well as from the health educator.
- they can learn from the materials, visual aids, etc, as well as the health educator talking.
- they can learn by relating the snew ideas to their own experience, and by discussing the ideas with people at home and in their community. Health education does not end when the formal health education session ends.

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There is an ancient Chinese proverb which is very relevant to health education.

I hear and I forget;
I see and I remember;
I do and I understand;

As an example of this consider teaching someone to make up ORT.
- someone who is just told how to make up ORT will probably forget.
- someone who is told and watches a demonstration is more likely to remember how to make up ORT.
- someone who also makes ORT up themselves, is much more likely to understand how to do it and be able to do it again.

The more actively involved people are in something the more likely they are to understand and remember it and be able to do it.

However it is not always possible to demonstrate a health message and let people actually do it in practice. But it is possible to actively involve people in learning by:
- discussing ideas with them,
- listening to their opinions, experiences and questions,
- providing them with materials and activities which will help them to discover new information for themselves.

2.4 Communication.

One-way and two-way communication.

The effective communication of health education messages depends on an exchange of ideas between the health educator and the learners. This is called two-way communication. It involves the health educator:
- encouraging learners to explain what they already know and do,
- giving the learners the opportunity to ask questions,
- fully answering the learners' questions,
- giving opportunity for the learners to discuss new ideas amongest themselves,
- finding out what the learners have understood and learnt from the session.

Some teachers feel that they must do all the talking themselves. They feel that they are not really teaching unless they are telling the students some new information. But this is one-way communication. This is not appropriate for health education. The main emphasis in this type of teaching is on the teacher, who decides what the student should learn; the student passively receives the knowledge.

In health education two-way communication is essential in order for the learners to be actually involved. The teacher's role is to guide learners to develop their own knowledge, skills and attitudes, rather than just acquiring the teacher's. This process involves people in making their own decisions and can therefore result in behavioural change.
This is not traditional teaching but the promotion of learning it places the main emphasis on the learner and involves two-way

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Verbal and non-verbal communication.

Attitudes and feelings are often conveyed in gestures, not in words; this is non-verbal communication.

In health education, non-verbal communication is used in many ways, both positively and negatively, and intentionally and unintentionally.

Positive examples would be :
- smiling or eye-contact, indicating approval and interest,
- sitting down with a group to discuss something with them can express non-verbally the feeling of being on the same level, and not superior to them,
- greeting people according to their traditions.

Negative examples would be:
- yawning can express boredom and the feeling that the person's time is being wasted;
- not looking at the person being talked to, can also do the same thing in a more subtle way;
- tutting, shaking the head or wagging a finger can all express dissatisfaction non-verbally.

People are generally very sensitive to non-verbal communication, and health educators in turn need to be sensitive to this and be aware of how and what they are communicating in this way.

An extension of this is "practising what you preach". The health educator who tries to motivate people to use soap to wash hands before a meal and then promptly eats food without washing his hands with soap, conveys the message that he feels that soap is not really necessary. It is extremely unlikely in this situation that other people will be convinced that it is necessary for them! The health educator should be an example for the learners.

2.5 Literacy.

Literacy is the ability to read and write. Literacy is not an indication of intelligence, or of knowledge. It only indicates that the person has had the opportunity to go to school. People who are not literate may be highly intelligent, and often have very good memories. They deserve as much respect from the health educator as literate people. They should not be treated as stupid.

However as they cannot write and read, writing cannot be used to help them to remember information given in the health education session. Therefore in order to help people remember, health education messages must be:
- limited in number, and
- repeated frequently.

Pictures and visual aids have to be "read" in a similar way to written words. People who have not seen many pictures may not be able to relate a picture to the object it represents. Also many pictures use conventions to represent real things. For example,

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a health worker showed a poster sized picture of a fly, and explained how flies spread diseases. At the end of the session, one of the audience said that the talk was very interesting but luckily they did not have that problem in their village because they only had small flies there.

Pictures may also use symbols that do not really look like the object they represent, for example, a circle with spikes sticking out to indicate the sun shining. Again people may have difficulty understanding this. Even more difficult are symbols like ticks and crosses to represent good and bad, or "do" and "don't".

However, if the health educator explains them carefully, people can learn to "read" pictures during the health education session. But very few pictures convey messages successfully without explanation to non-literate people.
When using visual aids, the health educator needs to:
- be aware of these possible problems,
- learn how to look at visual aids from the point of view of someone to whom they are new,
- explain the content and meaning of pictures to people.

The use of visual aids is explained in more detail in section 3.6.

2.6 Helping people learn.

There are some general points which the health educator should be aware of when teaching.

People learn better if:
- they are learning about something which interests them and is important and relevant to them.
- the new knowledge builds on their existing knowledge, and does not conflict with deeply held beliefs.
- the new information is presented logically and makes sense.
- the new information is presented in a relaxed atmosphere, without distractions or interruptions
- the new information is presented by someone they respect and feel they can trust.

All adults have a lot of experience of life. They already have developed their own ideas about health; also, they may be much older than the health educator. The health educator needs to be respectful, patient and tactful.

2.7 Situation for health education.

Health education may take place in a lot of different situations, for example:
- home visits
- clinic consultations
- scheduled talks to small groups - at the clinic
  - in the community
- meetings with large groups - at the clinic
  - in a mosque
  - in schools.

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The health educator may be working with people in any of the following ways:
- One to one
- One to one but with others listening,
- with small groups of 3 to 5 people,
- with groups of 5 - 20 people,
- with a large meeting or more than 20 people.

The health education may be :
- With a person who is ill, and needs help on management of the illness,
- with a person who is not ill and needs motivation to prevent illness,
- with a group of people who need help in putting into practice a health-promoting project such as environmental sanitation.

All of these, and many other, situations require the health educator to use different techniques. These are dealt with in more detail in the next section.

2.8 The difference between education and training.

In these guidelines, health education is used in the sense of learning by members of the community. Each session stands on its own and is not necessarily part of a course. The participants are not selected, anyone in the community may attend. Participants are likely to be different at each session.

Training, on the other hand, refers to a scheduled series of inter-related sessions attended by the same participants on each occasion. For example, courses for DHWs, dais, sanitation workers, dispensers etc. Participants are selected for training according to particular criteria and are expected to attend sessions regularly. Training is therefore, more formal and organised, while health education in the community is non-formal.

The techniques described in these guidelines are divided into two groups. The first group, Section 3: Health education techniques, comprises techniques which are appropriate for health education in the community.

The second group, Section 4: Techniques for training, consists of techniques which are primarily applicable in training situations. However, many techniques from the first group are also important in training.

It should be noted that these guidelines are directed primarily towards health education and training with non-literate or semi-literate people.

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3. HEALTH EDUCATION TECHNIQUES

3.1 QUESTION-AND-ANSWER EXPLANATION AND MEANING

Questions are often asked to try and involve people; but for this to work, the right type of question needs to be asked in the right way.

There are several different types of questions. One useful classification of types of questions is between open and closed questions:

Closed questions are ones in which the number of answers is limited. For example:
- questions to which the answer is "yes" or "no".
- questions which give an "either/or" choice.

Closed questions should generally be avoided in health education as people tend to guess the answer (or guess what they think the health educator wants for the answer).

Open questions are ones in which the number of answers is not limited. For example:
- questions begining with why/how/what/when.
- questions that ask for peoples' feelings, opinions, suggestions, or description.

Open questions generally produce for more information than closed questions.

Reasons for using.
There are several different ways in which questions can be used:

1. Genuine questions asked by learners.
The health educator gives a presentation and then invites the audience to ask questions, i.e. the learners ask and the teacher answers. This is the most genuine and important use of questions, because it means the health educator is giving people information they really want.

This kind of question-and-answer session can be very valuable. The opportunity for this type of question should always be provided in one-to-one and small-group situations, and also at the end of health talks and other kinds of presentation to large groups.
If the health educator considers that other participants are likely to know the answer to a question then he/she/may direct the question back to the participants.
2. Genuine questions asked by teachers.
The health educator asks questions to find out about people's existing knowledge, attitudes and practices. She/He listens carefully and respectfully to all answers. This is another important use of question and answer, because it gives the health educator information about health beliefs and practices in the community. This information is valuable in deciding which

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topics/messages are most important for the Health Education programme.
Genuine questions are also useful to find out what people already know, so that the health educator can build on their existing knowledge, and not waste time and bore people by telling them things they already know.

Examples of this type of question would be:
- What has your baby eaten today?
- What do you usually feed him ?

3. Testing questions.
The health educator asks questions in order to find out whether or not people know the answers. This use of questions is fundamentally different from uses 1 & 2 because in this case the educator only asks questions to which He/She already knows the answer. This is a completely different use of questions from their use by ordinary people. However, such questions are useful tools for assessing how much has been learnt. This in turn provides useful feedback for teachers on how effective their teaching was. This type of question must be used carefully and diplomatically so that the students do not feel embarrassed if they have not understood; it may be because the teaching was inadequate.
Examples of testing questions would be - after a health education session about vaccination - asking: why is vaccination important? Who needs to be vaccinated? What diseases can vaccines prevent?

Teaching questions The health educator uses questions to encourage people to engage in a discussion which he/she leads. In this way the health educator can guide people towards saying the things he/she wants to hear in order to reach the conclusion which the health educator wants. Teaching questions are often used to try and involve people in the health education session. However, skill, tact and self-restraint are all needed to use teaching questions well.

An example of this use of questions would be:
If you are outside a house, where are you likely to find a lot of flies?
- Rubbish heaps, dung heaps, faeces.
And if you are inside, where do you find a lot of flies?
- Kitchen, around food.
Are these the same flies?
- Yes, probably.
Flies often walk up walls. How can they do this?
- sticky feet.
So if flies land on rubbish, and have sticky feet and then come in the kitchen, what does this mean?
- Flies bring dirt into the kitchen ... food.
Teaching questions can also be used to make people aware of problems: for example showing a picture of a dirty kitchen with lots of health hazards and asking how people feel about this picture.

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Possible problems

The main problem with question-and-answer is that the health educator may use questions in the wrong way and cause confusion. For example:

If the health educator wants to find out what people's real beliefs and practices are, s/he should not start off by asking testing questions because people will give the answers they think the health educator wants to hear, rather than what they really believe.

Similarly, if the health educator has asked a testing question and someone misunderstands, and gives back a genuine answer that is wrong, the health educator must be careful to avoid giving offence by telling them outright that they are wrong. With teaching questions people may give a correct answer but not the one the health educator wanted, so the session may get sidetracked.

Guidelines for effective use.

1. Questions must be clear.. The language used must be appropriate (ie technical or English words should be avoided). The level must be appropriate (ie based on people's existing knowledge) and the subject relevant.
2. The health educators should avoid:
   - answering their own questions.
   - rephrasing questions before anyone has had a chance to answer,
   - changing the question halfway through.
   - repeating the question (unless asked to do so).
3. In a large group, the health educator should ask the question, then pause, then indicate the person to answer, either by name, or if the name is not known, then by non-verbal communication such as eye contact, nodding or gesturing in a polite, non-threatening manner. This way, everyone will try to think of the answer. If the person is indicated first, before the question is asked, then everyone who is n't indicated will ignore the question.
4. People should be given enough time to answer; the health educator should be prepared for a few moments silence. If however, everyone shouts at once the health educator should not be alarmed; this is a positive response. The health educator should question the group and then indicate the person to answer.
5. The health educators should avoid the temptation to address all questions to just a few people whom they know will answer but should spread the questions around the group. They should be prepared to encourage shyer people, but avoid embarrassing people. If someone doesn't want to answer, that is their prerogative. Adults are not school children. If someone gives the wrong answer the health educator must avoid humiliating them or being scornful (verbally or through non-verbal communication such as tutting).
6. The health educator should try and use questions to guide people towards discovering new knowledge for themselves.
7. After a health talk with a large group, the health educator should stay behind to answer individual questions because

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people may be reluctant or shy to ask genuine questions in front of a large group.

3.2 HEALTH TALKS

EXPLANATION AND MEANING.

A health tall is a talk given on a specific topic by a health worker aimed primarily at conveying information from the health worker to the audience.

One person, the health worker, does most of the talking.

This is the most commonly used techniques for health education; howe.or this does not mean it is the most appropriate. It is used because it is the most familiar method, as it is similar to formal lectures or speeches. It atends to be what both the "teacher" and the "learners" expect in an educational situation.

Reasons for using

To convey information to a group of 5 or more people. However although health workers can convey a lot of information in a health talk, it seldom changes attitudes or practices, only knowledge.

Health workers can plan (and control) the session.

Some people find it easy, mainly because of its familiarity.

Possible problems It is essentially only one-way communication. The audience remains passive, so they are less likely to remember the information. Even if they remember it, they are less likely to change their attitudes or practices, than if they had been actively involved in the learning process.
Usually health talks end up providing lots of teaching but very little learning. There is no feedback to the health educator, so no assessment of either teaching or learning. However if health talks are the only available method of health education then the following guidelines should help to make them as effective as possible.

Guidelines for effective use

1. Health talks should be combined with other methods (visual aids, question-and-answer, discussion)
2. Maximum length for a health talk lis about 15 minutes. It can be longer if there is opportunity for discussion and questions .
3. Maximum number of new points which people can be expected to remember is five. A lot of reinforcement and repetition of the same ideas is necessary. Section 5 contains the most important health messages to convey on various topics.
4. Good preparation is essential:

- the health educator should find out what the audience (the target group) know/think/do about the topic.
- the points must be logical and clear.
- teaching aids (pictures, examples, stories etc) must be carefully prepared.
- the health educator should practise the health tall beforehand and time it.

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- the health talk should be given at a time and place which is convenient for both the audience and the health educator.

3.3 DEMONSTRATION.

EXPLANATION AND MEANING.

A demonstration involves performing an act[illegible] sequence of actions in order to show learners the correct procedure. In a health education session, it should always be followed by then having the learners themselves perform the procedure.
The two stages, the demonstration by the teacher and the return demonstration by the learners, are both essential.

Reasons for using

A demonstration (with a return demonstration) ensures that people are able to immediately put into practice a procedure that they have only been taught.
It reveals any problems or misunderstandings.
It reinforces the knowledge. People remember something they have seen and been actively involved in much better than something they have only been [illegible]to'd about.
It gives people confidence.

The demonstration (and return demonstration) should be used whenever the health education topic or message includes a practical procedure e.g.
- correct mixture of Oral Rehydration Solution (ORS)
- Cleaning a wound.
- cleaning eyes/applying eye ointment.
- fitting the slab or vent pipe in a pit latrine.

Possible problems

It is time-consuming for everyone to have a turn.
It may need a lot of equipment/supplies.
It is not always completely practicable - e.g., it is not possible for everyone in the group to take turns at fitting the vent pipe in a latrine.
Only a few health education messages include a practical procedure and are therefore suitable for demonstrations.
Very often people think that the practical demonstration is the only important message. For example, people are taught to mix ORS correctly (practical procedure), but do not learn the equally important messages of how much to give, how often and for how long.

Guidelines for effective use

1. A demonstration can be done on a one-to-one basis or with groups.
2. The demonstration must be done correctly and be visible to all the learners.
3. It must use equipment that is appropriate for the target group (ie. locally available, known to them and preferably used in their homes).
4. Before the demonstration, the health educator must check that all the necessary materials are available, and should practice the demonstration beforehand.
5. Not more than 8 steps of procedure should be done at one time; if necessary the procedure can be split into 2 stages.

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Suggested procedure for demonstration tech ques:

1. The health educator explains reasons for the procedure.
2. The health educator explains the procedure, step-by-step, preferably using a visual aid (for a small group, the real thing should be used; for a large group, an enlarged visual aid should be used).
3. Demonstration by health educator, using real objects and/or people.
4. The learners are given the opportunity to ask questions
5. The health educator asks one learner (or 2 learners together) to demonstrate while the rest of group watches. (If the procedure is difficult, or, if the first learner makes mistakes, this should be repeated until it has been done correctly).
6. The health educator asks the whole group to practise in pairs; this improves confidence, enables them to learn from each other's mistakes, and saves time and materials. The health educator goes round checking and helping pairs who need help.
   If the group is small (less the [illegible] everyone can do it at the same time rather than working in pairs.
   Having everyone demonstrate one after another should be avoided; this is very time-consuming, and after the first two or three demonstrations becomes very boring.
7. The health educator explains the other important messages related to the demonstration.
8. To finish off, the health educator can ask people in the group to describe the steps of the procedure and the impoprtant messages, one learner describing one step and another describing the next step and so on.

For example: mixing Oral Rehydration Solution (ORS) in the home

Equipment: Salt, sugar, half litre container, bowl and spoon for mixing.

1. Explanation of the importance of ORS to prevent death from dehydration.
2. Explanation of ORS preparation using real objects or a flip chart:

Step 1. Assemble salt, sugar, water, half litre measure, bowl and spoon for mixing.

Step 2. Measure a half litre of water into the mixing bowl.

Step 3. Measure a 3 fingered pinch of salt; add it to the water in the mixing bowl and stir until dissolved.

Step 4. Taste to make sure it is palatable (not saltier than tears).

Step 5. Measure a closed handful of sugar.. Add this to the salt and water and mix until dissolved.

3. Demonstration of each step by the health educator.
4. Opportunity for learners to ask questions.
5. Return demonstration by learner(s) in front of the group.
6. Simultaneous practice by all learners in pairs or individually.
7. Explanation of: administration with cup and spoon,
   - how much to give
   - how often to give
   - how long to continue

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3.4 STORIES.

Explanation and meaning

Stories are different from health talks because they have characters and something must happen to them. A good story is entertaining and, therefore, memorable. The audience is interested because they want to find out what happened to the characters. Health information is thus learnt almost subconsciously and therefore probably at a deeper level and more effectively.

Reasons for Using. Stories can be used to give information, to encourage people to look at their attitudes and to help people decide how to solve their problems. Stories help people to see the health message in a realistic context. They work like an example or explanation.
They are easy to carry around.
They can be passed on to others.

Possible problems. A story may be entertaining but may fail to convey the health message. People may feel that the story does not apply to them. Some people may not see the value in a story if it does not contained practical information.

Guidelines for story telling.
1. Find or think up stories which are culturally appropriate, so that people can identify with the characters.
2. A story should last only 5-10 minutes otherwise people may become bored or forget parts of the story.
3. Stories should be believable; the characters should have local names and believe like local people. People should be able to identify with them. Scornful or unkind words should be avoided. For example comments like: "the silly man did the wrong thing" should be avoided because people in the audience who have done the same thing may be upset by it.
4. As with health talks, stories must be well prepared. Language must be appropriate and the story teller must behave in a friendly manner. The story should be logical and clear but leave the audience to judge the message and make up their own minds what or who was right or wrong. One good idea is to ask the audience to supply the ending.

5. As with health talks, the story should be followed up with a discussion. This is normally more important than the story itself. Questions should be asked to check that people have got the right messages. Encouraging people to think about the story and discuss it, will help them to be involved and to learn from it. For example, ask people what they would do in a situation similar to the story.

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3.5 POEMS, PROVERBS AND QUOTES FROM RELIGIOUS BOOKS.

Explanation and meaning

In all cultures there are traditional poems, proverbs and religious books. Quotes from these can be very effectively used to reinforce health education messages.

Reasons for using

People are willing to accept the importance and truth of traditional poems, proverbs and especially quotes from religious books. so the messages are more likely to change attitudes and affect behaviour. Also they are usually short and easily remembered. For example there are Koranic references to the importance of breast feeding babies for 2 years.

"The mothers shall give suck to their offspring to two complete years." Surat II Baqara; verse 233.

Poems, proverbs and quotes from religious books can relate new health messages to existing beliefs. They can make people feel that the message is important and part of their normal duty.

Like stories they can easily be passed on to others. they should be culturally acceptable, they require no equipment or materials and are easy to transport around.

Possible problems

The reference may not match exactly the message which is being conveyed. Many references can be interpreted in more than one way and can sometimes lead to distracting arguments.

Guidelines for effective use.

1. Appropriate poems, proverbs, or quotes from religious books should be found.
2. It is also possible for people to write their own poems.
3. Religious references can be calligraphed to provide a visual and which then emphasises the authority of the written word.
4. The poems, proverbs and quotes from religious books should be recited in an appropria'e way.
5. The relevance of the reference to the health message would be explained or discussed. If the message is not obvious or could be misinterpreted, the message should be explained by the health educator, or, if it is more obvious the learners can be asked for their interpretation.
6. The poems, proverbs and quotes from religious books can also be used after health talks to support the health message.
7. Quotes from religious books must be handled very tactfully. This is especially important if the health educator is a non-muslim.

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3.6 VISUAL AIDS.

Explanation and meaning.

Visual aids are things that people look at to help them learn, for example: posters, pictures, photos, charts, flip-charts, overlays, flannel graphs, magnet boards, models, real objects. Real objects are always the most effective, and three-dimensional visual aids such as models are more effective than two-dimensional visual aids such as pictures (especially with non-literate village people who are not used to looking at pictures).

A visual aid is an aid to learning, not a complete method in itself. Its effectiveness depends on how well it is used by the health educator.

Reasons for using.

Visual aids can support other methods such as talks, discussions, demonstrations, stories. For many people, a visual impression is more memorable in the long term then words. For example many people remember a picture more easily than a verbal description.

They make the presentation more interesting.
They reinforce the spoken message.
Some things can be explained more clearly in pictures than words (but not everything).
They can provide a focus for discussion.
They can stimulate new ideas.

Visual aids can be used in different ways for different purposes.

i) Initial purpose: to reinforce learning by presenting new ideas through eyes as well as ears - two channels at once.
ii) During the health education session: to act as a memory aid to refer back to. For example, the health educator may show a picture to help explain a message. Later on s/he may refer back to this picture and people are more likely to remember the message and what was said. The visual aid may be left on display throughout the lesson, so that the health educator can refer back to it easily.
iii) After the health education session: seeing a poster on a wall after a health talk may remind people of the message.

Possible problems.

If not clear, visual aids can confuse rather than clarify.

They can dominate the session when really it's the learners who should be the main focus.

There is a danger of the health educator talking to the visual aid instead of to the learners.

Visual aids have to be prepared, organised and transported around. The low level of visual literacy amongst the audience may cause its own problems (see section 2.7).

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Guidelines for effective use.

:Visual aids are only visual if people can see them.:
:They are only aids to learning if people can under :
:stand them. :

1. The visual aid must be appropriate for the message, and mu relate to the culture and experience of the learners.
2. The health educator must make sure everyone can see the visual aid (with a large group, s/he should check this before the session by standing at the back of the room or teaching area).
3. All the parts in a picture must be explained, especially for non literate people or rural people who are not often exposed to pictures.
   With a small group, they can be asked questions like: "wha do you see in this picture? What do you think this picture is about? What do you think this is (pointing to an object in the picture)?".
   With large groups, it is often better if health educator explains everything difficult in the picture.
   The health educator should avoid asking people to guess what is in a picture unless they are most likely to guess correctly. If, from experience, it is found that certain parts of a picture are usually misinterpreted, these should be explained at the begining.
4. If possible, the visual aids should be passed around so that people can look at them in small groups and discuss them with each other. Certain kinds of visual aids may be laminated or covered in clear plastic so they do not get damaged or dirty when passed around.
5. Some flip-charts can be used to tell a story, for example by giving the people in them names and creating a story around the pictures.
6. Visual aids can be used to check understanding and memory at the end of a session by asking various people to explain the picture; or this can be done in pairs to check each other's understanding.
7. Pictures or posters can be used as a more permanent memory aid after the health education session by displaying them in an appropriate place where they will be seen again by the audience.
8. When using visual aids which can be displayed on flannel-graphs or magnet-boards, the small pieces should be passed round first, so people can see what they are. This step can be used to get people talking in pairs.
9. Overlaps which are like flipcharts but the sheets are transparent should be built up slowly, making sure each stage is understood before going on. This provides a gradual build-up of a complex picture, instead of sequential presentation (as in a flip chart).
10. The health educator should be aware that flannel graphs are difficult to use under fans or in a wind.
11. When using visual aids which consist of many small pieces, it is necessary to ensure that none of the pieces get lost.

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AUDIO AIDS

Explanation and meaning.

Audio aids are things people can listen to on cassettes or radio, for example: songs, stories, poems, interviews, anecdotes, recorded radio programmes on health topics.

Reasons for using

An audio aid can be useful for gaining people's attention. It can provide a new and interesting way of presenting information, and may entertain as well as inform. An audio aid can bring genuine, real life contributions from a range of different people into the health education session. It can bring in experience and ideas of people who are not present - but still uses their own words and voices.

It provides a voice other than the health educator's and can help to prevent the health educator from dominating the group by doing all the talking himself.

Audio aids can be used to stimulate discussion. They would normally be used with groups rather than one-to-one.

Possible problems

Audio aids require a lot of preparation.
They require some equipment.
There may be technical problems.

Guidelines for effective use

1. Health workers can easily make their own cassettes. For example, they can record an interview with a parent who has successfully used ORT with a child. This can be played back in health education sessions. People will be interested to hear the recording and can identify with the people talking.
2. When the time comes to play the cassette, it is important that everyone in the audience will be able to hear clearly; this will affect the size of the audience and the location.
3. The health educator should explain to people what they are going to hear - who is talking on the cassette, in what situation and what about.
4. With some audio material, it can be very useful to ask people to listen carefully for specific points before playing and the recording. One way of doing this is to give 2 or 3 questions and ask people to listen for the answers.
5. The discussion which takes place after playing the cassette is just as important as actually listening to the cassette. The health educator should prepare questions or tasks to start discussions; this can be done with the whole groups. This discussion should be conducted in the same way as described in the section on discussion as a health education method (see 7.9).

6. Non formal [illegible] of audio [illegible] are [illegible] and a good idea. For example, the [illegible] that [illegible] health education messages for people to listen to while they are waiting in line for medical attention.

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3.8 DRAMAS AND PUPPET SHOWS.

Explanation and meaning.

Dramas and puppet shows are forms of entertainment which can be used to stimulate discussion on health topics. The performance can be enacted by people or puppets. These are a variation on audio visual techniques but with a stage, props and people or puppets replacing machinery.

Reasons for using.

To entertain and inform at the same time.

To stimulate discussion.

To provide an experience that people will remember.

Actors or puppets can express ideas, thoughts, and feelings which may be difficult to express in a more direct, personal situation; for example, objections to using a latrine or having a child vaccinated. Performances can be fun for the participants as well as the audience. Materials, if written or adapted by local people, can be much more appropriate and therefore effective than mass-produced audio visuals such as videos. The message, characters, language and environment can all be made to fit the local situation and its health problems.

Possible problems.

Performances require much preparation and rehearsal, and some equipment. They must be culturally appropriate for the health education to be effective.

Many people are reluctant to participate as actors in front of an audience.

Guidelines for effective use.

1. Because of the amount of time and effort to organize, plenty of people should come to see the show. Therefore it should be advertised in appropriate places.
2. If the show is going to take place outside the RHU, in the community, arrangements should be discussed and agreed with the local leaders/elders well in advance.
3. Some people may arrive late. Some introductory activity is useful, for example music, or songs, or some kind of performance by school-children, to allow time for latecomers to arrive and settle.
4. The seating should be arranged so that everyone can see and hear clearly. This can be checked before the show by sitting right at the back and noting whether the stage/screen can be clearly seen or not.
5. The discussion which takes place after the show is just as important, from the health education point of view, as the show itself. Therefore it is essential to have some questions prepared for discussion immediately following the show. This discussion is best done in small groups, of about 5 people per group (see section 3.9 on discussion). After the small group discussions, one person from each group is asked to report back her/his group's ideas. In this way, the watching of the show - which is a personal, individual activity - becomes transferred into a collective educational experience in which the group pools its ideas and opinions.

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The role of the health educator is that of a manager. He/she organizes, monitors and directs the proceedings, but without dominating people.

3.9 DISCUSSION.

Explanation and meaning.

In a discussion the talking should be spread equally between all the people in the group, the learners as well as the health educator. This is very important but very difficult to achieve.

The health educator has to lead the discussion without dominating it or allowing anyone else to dominate it.

[illegible]

[illegible] the group must be of normal conversation size (ie minimum 2 persons, maximum 5, because beyond 5, groups in natural conversation often split into smaller sub-groups). People should be free from fear of making a fool of themselves, being mocked, or risking humiliation. Also they should share a desire to reach a consensus answer or opinion.

Reasons for using.

To enable people to contribute their own experiences and opinions, to reach their own conclusions, and make their own decisions. This process is more likely to lead to changes in attitudes and practices than simply receiving information from a health educator. There is active involvement of people. Discussion provides useful feedback to health educator. It is the most effective way to stimulate group decision making and action.

Possible problems.

It requires considerable skill to lead a discussion without dominating it.
It may be difficult to get people interested and involved.
It may be difficult to keep the discussion relevant.
There can be problems with one or two people dominating the discussion. It can be difficult to get shy or quiet people to take part.

Guidelines for effective use.

1. The whole group should be divided into small groups of 3-5 people. However, there should be not more than 4 small groups, because of time needed to get feedback from them. Therefore, if the whole group is larger than 20 then smaller groups of upto 7 persons can be used.
2. As far as possible, older people should be in different group from younger people, so that each group is composed of people who would normally interact freely as peers
3. Groups are given specific questions to answer or a task to perform. The groups may be given the same task or different tasks. The skill is in selecting or designing tasks which will provoke discussion.

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Possible types of task for small group work include:

3.1 Identification task: for example, the group is given a picture of a home and garden with lots of health hazards. The task is to identify all the hazards and suggest improvements.

3.2 Comparison: for example each group is asked to compare pictures of two villages and say which they think is healthier to live in and why.

3.3 Listing: for example, the group has to think of as many different ways of preventing malaria as possible (or protecting water supplies). No visuals are needed for this type of task.

3.4 Completion task: for example each group has a "starter" set of three things to do when a person has diarrhoea. They have to think of as many more points as they can.

3.5 Classifying: for example, each group has to sort ten different methods of rubbish disposal into those that are safe and those that are dangerous. Picture cards are helpful but not essential.

3.6 Prioritizing tasks: for example, the group has to agree on which of a number of water sources is the safest and which the most dangerous, or what are the 5 most important messages to give to the mother of a child with diarrhoea, etc. A set of picture cards to arrange in order can help focus this kind of discussion.

A prioritizing task can be used to follow up other tasks, if the group has to arrange the points in order of importance. In general, prioritizing tasks generate much more fruitful discussion as each participant tries to convince the others of his/her priorities.(During this process of negotiation with the other participants, a subtler process of negotiating the information/ideas also takes place, which produces learning).

3.7 Ordering tasks: for example, each group is asked to arrange a set of pictures of development of a BCG scar in chronological order.

4. A finishing time should be specified, and each group asked to nominate someone to report back on the group's discussion.

5. Reports present the results of their group's discussion.

6. The health educator (or a participant) summarises the discussions and the main health messages.

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4. TECHNIQUES FOR TRAINING.

4.1. Role Plays.

Method A: As performances to be watched.

Explanation and Meaning.

A role play is a learning activity organized by a teacher in which people act out roles in real life situations. Each person acts out their role in the situation, speaking and behaving in the way they think an ordinary person would behave. For example, a role play could be done of a DHW trying to convince a family of why they should build a latrine.

Reasons for using

1. Role plays can require trainees to combine and apply a range of skills and knowledge which they have learned. This is the same as they have to do in real life situations in their future work.
2. Role plays help to revise and reinforce what trainees have learned.
3. Role plays provide a realistic way of practising skills that involve working with people, which is a major part of a DHW's job.
4. Many people enjoy acting in roleplays once they become accustomed to doing this.
5. People usually find role plays enjoyable and interesting to watch.

Possible problems.

1. Some people are shy and donot like to act in roleplays.
2. Roleplays are difficult to control once they have started even if the teacher is a roleplayer.
3. If roleplays go on for too long they become boring.
4. If roleplayers try to make the roleplays too funny then the people watching may laugh so much that they miss the point of the roleplay.
5. Trainers often confuse the practice of a practical skill, e.g making O.R.S., with roleplay. Practice after a demonstration is not a roleplay. If trainers try to include a complicated practical task in role play, then the roleplay may become too long.

Guidelines for effective use.

1) Decide what topic can be taught or revised using roleplay.

2) Plan the content of the roleplay carefully so that the roleplay does not exceed 10 minutes.

3) Early on in the training select people for roleplays who will not be shy or embarrassed. Later on, involve the quieter trainees in roleplays as well.

4) Prepare and, if possible, practice the roleplay with the roleplayers in advance.

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5) A few simple aids (props) to help the acting makes the roleplays much more effective e.g. doll, OPS packet.

6) If appropriate, direct the group's attention to the main points of the roleplay before starting. This can be done by asking one or two questions related to the roleplays which the trainees have to answer after the roleplay.

7) Do not allow interruptions during the roleplay. This applies to the trainer as well as the trainees.

8) After the roleplay, ask the roleplayers about their opinions and feelings from the roleplay. This also allows them an opportunity to correct any mistakes which may have been made.

9) Discuss the roleplay with the group. This discussion would include getting answers to any questions that may have been given.

10) Summarize the main points from the roleplay.

11) If appropriate, repeat the roleplay with different roleplayers.

Method B: as small group activities.

Explanation and meaning.

The meaning of roleplay is the same as in Method A. The use here is different however. Instead of a few participants acting the roleplay while the rest watch all the participants act out roleplays at the same time. For this to be possible the participants must be divided into small groups. Each group may have the same roleplay or each may be given a different roleplay.

Reasons for using.

1. Reasons 1 to 4 of Method A apply.

2. The fact that no people are watching helps even shy people to get involved in their roles.

3. This use of roleplay can be especially useful for all participants to experience the influence of attitudes on behaviour. They can also try out different ways of trying to change people's attitudes and behaviour.

Possible problems.

1. The different groups may finish their roleplays at different times. This can create organizational problems for the trainer.

2. Designing roleplays that will succeed in getting people fully involved in their roles is difficult.

3. More roleplay aids are required than in Method A.

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Guidelines for effective use.

1) Decide what topics can be taught or revised using this roleplay method.

2) Design a roleplay which depicts a realistic problem for which the roleplayers must negotiate a solution between themselves. Each roleplayer must be given a specific point of view on the problem. The role should be designed so that a compromise solution can be eventually reached by the roleplayers.

For example, a roleplay on vaccination may have the following roles:

a) Parent who is afraid his/her child will get ill after a vaccination.
b) Grand parent who believes that diseases are the will of Allah.
c) Vaccinator or DHW.
d) Neighbour whose first child died from measles and who has since had all of his children vaccination.

3) Divide participants into groups of the appropriate size.

4) Having discussion topics ready for each small group to start on as the, finish their roleplays can solve the problem of groups finishing at different times.

5) Summarize the main points from the roleplays.

4.2. Field visits.

Explanation and meaning.

Field visits are activities which take trainees out of their normal place of training to learn in the community. For example, visiting PHU or another project, seeing some wells or latrines, seeing unhygienic or unhealthy places in the community.

Reasons for using.

Field visits enable trainees to learn from what is happening in their community and places or organisations which are relevant to their work. They can also help trainees to apply what they learn in a training course. This reinforces what they have learned and at the same time enables trainees to see the practical application of what they are learning.

Possible problems.

Field visits to see things in the community can attract crowds which may be off-putting for some trainees. Field visits need careful preparation and sometimes transport. Field visits often need lots of time. This may be difficult to fit into a lesson or course timetable. Weather can also be a problem.

Guidelines for effective use.

The trainer should:

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1) decide on what topics can be taught or reinforced by appropriate field visits;

2) decide exactly what the trainees should learn from a field visit;

3) decide how the trainees will learn this from field visit;

4) make all necessary arrangements for the field visit well in advance; this includes information all the people involved such as transport staff, community members, project staff and the trainees;

5) estimate approximately, how much time will be needed for the field trip;

6) explain in advance to any workers who the trainees will be visiting, what the trainees should learn from the visit and what the workers should do with the trainees; the trainer should remember that people have their own work to do, so should not ask for too much;

7) explain to the trainees the purpose of the field visit, what they should do and any special points about the visit;

8) provide opportunities for the trainees to actively participate in the field visit; for example, by asking them questions or giving them some assignment related to the field visit; It may be desirable to divide a class into smaller groups;

9) avoid sending trainees on a visit to a PHU or a project without adequate supervision or preparation;

10) remember that people who cooperate with a field visit are giving their time and effort to help trainees; they should always be thanked at the end of a visit (especially if the visit is likely to be repeated);

11) follow up the field visit by discussing the visit with the trainees and summarizing the important points that they should have learned.

4.3. Audio-visual materials.
[illegible] to and meaning.

Audio-visual materials are those which combine both audio and visual means of communication. People both watch and listen to them. Examples are films, videos and slide shows with accompanying tape recording.

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Reasons for using.

To entertain and inform at the same time.
To stimulate discussion.
To provide an experience that people will remember.
To present complex information or ideas in a clear, simple and memorable manner.
To show real life examples lof good health practices in similar communities.

Possible problems.

1. A lot of equipment is necessary which is often not readily available.
2. The health educator must know the materials well and this takes time and preparation.
3. Preparing the equipment, materials and location before the session also takes considerable time and effort.
4. Some source of electricity is needed. Power failures and other technical problems can arise.
5. The materials may not be culturall, appropriate.

Suggestions for effective use.

1. Because of the amount of time and effort to organize, enough people should come to see the show but not too many. Therefore, it should be advertised in appropriate places.

2. If the show is going to take place outside the BHU, in community, arrangements should be discussed and agreed with the local leaders/elders well in advance.

3. All materials/equipment must be availabale and in working order well before the show is due to start, with spare batteries/fuses/bulbs for electrical equipment.

4. The seating should be arranged so that everyone can see and hear clearly. This can be checked before the show by sitting right at the back and noting whether the stage/screen can be clearly seen or not.

5. Before starting explain what the show is about.

6. It may be useful to focus people's attention on the basic ideas running through the show by asking 2 or 3 "focus" questions before starting. People try to learn the answers while watching the show. The answers are then discussed by the group afterwards.

7. Regardless of whether or not "focus" questions have been asked, a discussion should be held after the show. The discussion which takes afterwards can be just as important, from the health education point of view, as the show it self.

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Therefore it is very helpful to have some topics prepared for discussion following the show. This discussion is best done in small groups, of about 5 people per group.

After the small-group discussions, one person from each group is asked to report back her/his group's idea. In this way, the watching of the show - which is a personal, individual activity - becomes transferred into a collective education experience in which the group pools its ideas and opinions. The role of the health educator is that of a manager. He/She organises, monitors and directs the proceedings, but without dominating people.

Summary of procedures for using audio-visual aids.

1. Introductory activity (with or without "focus" questions).

2. Show audio-visual material (followed by checking answers of "focus" questions if asked).

3. Small groups discussion.

4. Representatives of the small groups report their group's views to the whole group.

5. Concluding discussion.

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5. CONTENT OF HEALTH EDUCATION.

5.1 Relevant, practical, appropriate, positive.

The previous section dealt with how to deliver health information to the community, this section will be concerned with what should be the health information conveyed to the community.

Health information should be:

- relevant: For example, there is no need to discuss ways in which the community may reduce risk of malaria if malaria is not a problem in the R.V.
- practical: For example, encouraging mothers to give their children meat and eggs would not be practical or appropriate if both were so expensive for the family's budget or if they were not readily available.
- appropriate: For example, health education messages need to be culturally appropriate and not conflict with deeply held beliefs.
- positive: Health information should be positive and state what should be done to promote good health and prevent disease. In general, negative messages "don't do....." should be avoided.

5.2 Messages.

A convenient way for the health educator to summarize health information is in the form of messages. An example of a message is: Mothers should start to breast feed their babies immediately after birth. This message is simple, practical and appropriate and if the health worker is conducting a session on breast feeding, this is one of the messages that the audience should take away with them.

Although this is a simple message, the reasons for the message may be several. In this case:

Starting to breast feed immediately after birth stimulates the production of breast milk. If possible, breast feeding should begin not later than one hour after the delivery of the baby.

- In some countries, mothers are advised not to feed their babies on the thick yellowish breast milk (called colostrum) which is produced in the first few days after the birth. This advice is wrong. Colostrum is good for babies and helps to protect them against common infections. The baby does not need any other foods or drinks while waiting for the mother's milk to come in.

5.3 Priority topics/messages.

Within the refugee health programme some health strategies are considered more important than others. For example, priority has been given to interventions which prevent children from dying or developing severe illness, such as immunization, control of diarrheal diseases and management of acute respiratory infections.

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Within the refugees health programme, the following topics have been given special priority. Lists of prime messages for these topics for health education have been developed or are in preparation:

- Child growth
- Immunization
- Breast feeding
- Control of diarrhoeal diseases
- Personal hygiene and sanitation
- Acute respiratory infections and tuberculosis
- Maternal care
- Malaria

These topics reflect the major health needs and problems of the refugees and are considered to be of the highest priority for 1989.
However the health needs and priorities may vary from district to district and health personnel along with the community must decide what is most relevant for that community.

5.4 Child Growth.

The prime messages are:

- Breast milk alone is the best possible food for the first 4 months of the child's life.
- By the age of 4 months, the child needs other foods in addition to breast milk.
- By the age of 1 year, the child needs to eat at least 4 times a day.
- By the age of 1 year, the child should eat all the foods the family eats, made soft.
- During and after an illness a child needs extra food and extra meals.
- Children between the ages of birth and upto 2 years of age should be weighed regularly . If there is no weight gain for 2 months, something is wrong.

5.5 Breast feeding

The prime messages are:

- Breast milk alone is the best possible food and drink for a baby in the first 4 months of life.
- Babies should start to breast feed immediately after birth.
- Breast feeding should continue upto 2 years of age.
- Never use bottles as bottle feeding can lead to serious illness and death.
- Continue breast feeding during the next pregnancy.
- A mother who is breast feeding should eat for two persons.
- Breast feeding should be stopped slowly.

5.6 Immunization.

The prime messages are:

- A child who is not vaccinated is more likely to become sick,

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disabled and die.

- Childhood vaccination protects against six dangerous diseases polio, measles, whooping cough, diphtheria, TB and tetanus.

- All vaccination must be started as soon as possible after birth and should be completed in the first year of the child's life.

- Every women should be fully vaccinated against tetanus to protect both herself and her babies, from tetanus.

- It is safe to vaccinate newborn babies, sick children and pregnent women.

- Vaccination cards are important. They must be kept carefully by the family. They should be brought with the women and child on every visit to the clinic or health worker.

- Infants must complete the full course of vaccination, otherwise the vaccine may not work.

- After vaccination the child may develop a fever or rash or a small sore. These are not dangerous problems and parents should not worry about them.

5.7 Control of diarrhoeal diseases

The prime messages are:

- Diarrhoea can kill children by drainage too much liquid from the body .

- Give a child with diarrhoea extra fluids frequently as soon as it begins and as long as it continues.

- When a child has diarrhoea, it is important to continue breastfeeding.

- A child with diarrhoea needs food. Bottle feeding and soothers are bad and lead to diarrhoea.

- Trained help is needed if diarrhoea is more serious than usual.

- After diarrhoea stops, a child needs extra food every day for at least a week .

- Medicines other than ORS should not be used for diarrhoea, except on medical advice.

- The following can help prevent diarrhoea: breast feeding, using latrines, keeping food and water clean and covered, washing hands before touching food, washing hands after using latrine.

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5.8 Personal hygiene and environmental sanitation.
The prime messages are:

- Faeces contain microbes which cause diseases.

- People can swallow these microbes if the microbes get into water, onto food, and onto hands.

- Diseases can be prevented by washing hands with water and soap after defection and before touching food.

- Diseases can be prevented by using safe, clean latrines.

- Diseases can be prevented by using safe, clean water for drinking.

- Diseases can be prevented by regular washing of the body and clothes.

- Diseases can be prevented by keeping food clean.

- Diseases can be prevented by burning or burying household refuse and proper disposal of waste water.

5.9 Acute Respiratory Infections and Tuberculosis.
The prime messages are:

Tuberculosis.

- Tuberculosis is spread by air when a person with pulmonary tuberculosis coughs or spits.

- Persons with cough, chest pain or blood in the sputum should go to the RHU for a sputum check.

- Only complete daily treatment of TB cases cures TB patients and stops the infection from spreading in the community.

- People should cover their mouth when they cough.

Acute Respiratory Infections.

- If a child with a cough is breathing more rapidly than normal the child is at risk and medical attention should be sought immediately.

- A child with a cough or cold should be helped to eat and to drink plenty of fluids.

- Families can help prevent pneumonia by making sure that babies are breast fed for the first 6 months and that all children are well nourished and fully immunized.

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5.10 Maternal Care.

The prime messages are:

- The risks of child birth can be reduced by going to the health worker for check ups during pregnancy.

- All women should receive immunization for tetanus prior to delivery.

- A trained person should assist at every birth.

- A women needs more food during pregnancy unless she is already over-weight.

- Spacing pregnancies at least 2 years apart and avoiding pregnancies below 18 and above 35 years greatly reduces the dangers of child bearing.

- All women need iron supplementation during pregnancy and for at least 1 month after delivery.

5.11 Malaria.

The prime messages are:

- Young children should be protected from mosquito bites especially at night.

- Communities should destroy mosquito larvae and prevent mosquitoes from breeding.

- Children and adults with a fever should go to the MHU for a blood smear to be taken.

- If malaria is the cause of the fever, the person should take the full course of the anti-malaria drug.

6. HEALTH EDUCATION IN SCHOOLS.

6.1 Introduction.

If health education is taught to children throughout their childhood this will enable them to develop good health practices, both for the present and also hopefully the future.

Children can receive health education from three main sources:
1. Parents and relatives in the home.
2. Community leaders, mullahs and health workers in the community.
3. Teachers in the schools.

Health education in schools should not be done in isolation from the home or community. If links are made between health education in the school, home and community, then health messages will be reinforced. In this way real improvements in today's children's health, and the health of future generations,

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can be expected.

6.2 Reasons for health education in schools.

1) Health education should enable school children to develop good health practices based on a rational understanding of the causes of diseases and receive practical advice which will be of direct use in their own situation.
2) Many school-aged children are involved in looking after their younger brothers and sisters. They are therefore in a position to directly apply the health education messages.
3) School-aged children can also teach health education messages to their younger brothers and sisters.
4. As future parents, school children need good health practices in order to be able to care well for their own children when the time comes.
5. As the future educated members of the community, school children will be in a good position to act as agents for change in the improvement of the community's health attitudes and practices.

6.3 Suggested Curriculum.

In many Afghan primary school [illegible], [illegible] are taught in the first three grades: Maths, Pushtu and Islamiat. If a school has classes from Grade 4 upwards then science is often taught, this subject sometimes includes health education. Most children do not stay in school beyond Grade 5 , so the connection between maintaining ones' health and environmental sanitation must be established in the first 3 grades.

In view of this, the following health education curriculum may be most appropriate:

Grade 1,2 and 3:- Health education integrated with the teaching of Maths, Pushtu, and Islamiat by the teachers of these subjects.

Grade 4 and 5 :- Health education taught as part of science by the teacher of this subject. Integration of health education with Pushtu and Islamiat can continue.

Suggested topics.
- How sickness is caused and spread.
- Personal hygiene.
- Water
- Sanitation (home and community)
- Flies.
- Common Health Problems
- Diarrhoea and Oral Rehydration Therapy (ORT)
- Malaria
- How to care for a sick child.
- Vaccination.
- Food.
- Accidents
- First Aid.

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It is essential that the topics and health messages taught to a particular grade are within the mental capabilities of children of that age..... For example, children in grade 1 or 2 may be able to understand about giving fluids to sick children, but may not be able to understand how to make ORS until grade 3 or 4.

It is also important that the order in which topics are taught is carefully considered. One lesson should follow on from previous lessons in such a way that children's understanding of health messages becomes more detailed and broader as they continue their schooling. For example the importance of latrines should be taught after teaching that faeces can cause sickness, but before teaching about how to use a latrine correctly . Different lessons should be related to each other so that children can gradually build up a complete health picture.

6.4 Teaching and learning.

Because of the way they were taught, many teachers assume that teaching means "telling". So teachers spend most of their time talking at children who have to memorize what they are told. Just giving a talk is usually not a very good method of teaching.

Most methods discussed in Sections 3 and 4 can be used in schools. In particular, demonstration, question and answer, stories, poems, proverbs and quotes from religious books, visual aids, puppet shows, dramas and in higher grades, roleplays can be very effective in helping children as well as adults learn.

Generally, children learn best if:-
1. They are actively involved in the lesson.
2. Their lessons are related to previous and subsequent ones.
3. They can understand how the health messages are linked to their life at home and in the community.

Children are often more curious and open to new ideas and approaches than adults. Therefore, the teacher working with children can use activities which are very effective in stimulating learning but which might to regarded by adults as not sufficiently serious.
For example, after reading to school children a story with a health education message, the following activities could be carried out:

- ask the children to write a play based on the story.
- show the children how to make simple hand puppets.
- the children can use the puppets to act out the play (thus reinforcing the health message).
- arrange for the children to present their puppet show to other classes of younger children in the school or in other schools.

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This requires a commitment to teacher training and the provision of sufficient, appropriate educational material.

School teachers have often had little or no formal training. It is unreasonable to expect them to be able to teach health education (or any other topic) effectively without help. A school health education programme which emphasizes teacher training is preferable, to one where "outside" health education teachers come and teach health education directly with little time for the school teacher or follow up.

One very practical way of linking health messages to life at home is by using "Child-to-child" activities in teaching health education. These activities encourage school children to pass on and use the health education they learn to younger brothers and sisters at home and to children who do not go to school. The "Child-to-child" references test explain this approach to teaching health education. Examples of the child to child activity sheets are attached in the appendix.

7. USEFUL REFERENCE MATERIALS.

1. 1. Education for health: manual on health education and primary health care . WHO.

   2. Teaching health care workers: a practical guide. Fred Abbatt and Rosemary McMahon.

   3. Teaching for better learning. Fred Abbatt.

   4. Facts for life: WHO/UNICEF.

   5. Helping Health Workers Learn: David Werner, Bill Bowers.

2. Health Education in schools.

   1. Primary health education: Young and Dostman (Longman)

   2. Child to child: Arron and Hawes Macmillan.

   3. Child to child activity sheets.
      Available from: The Child to Child Programme
      Institute of Child Health
      70, Guildford St,
      London, WC1N1EH, England.

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IX. UNDER 5 CARE.

1. **Objectives:** At the end of this session participants would be able:
   1) To understand growth monitoring
   2) To diagnose & refer the patients who are at risk.
   3) To diagnose & manage common skin problems.
   4) To diagnose & manage common eye problems.
   5) To diagnose & manage common parazital problems.
   6) To diagnose & manage diarrhoea & dehydration.
   7) To understand immunization.

2. **Skills:** To encourage the participants to the importance of growth monitoring.
   To know complications of children who are at risk.
   To know completely about common skin, eye and parazital diseases.
   To know completely about diarrhoea & dehydration and encourage them to the role of diarrhoea.
   To encourage the participants to the importance of immunization.

3. **Activities:**
   1) The activities in the Under 5 a clinic should includes Growth monitoring of all children under 5 years of age, using a scale and "road" to health card" or an arm circumference band. Children with any degree of malnutrition should be seen more frequently in the under 5 clinic, receive individual counseling concerning nutrition and be referred to the nutrition room.
   2) To explain which groups of children are at risk.
   3) To diagnose those children who are at risks practically.
   4) To explain common skin, eye and parazitol disease.
   5) To explain diarrhoea & dehydration.
   6) To explain immunization.
   7) To practice said diseases in clinic.
   8) To practice vaccination in clinic.

4. Duration: Five days.

5. Teaching Materials: Handouts, slides, posters and films.

6. Reference: IMC Teaching manual for midlevels.

General Considerations

Diarrhea and dehydration are considered together because they occur together. When a child has diarrhea it means that he is 1) passing more stool than usual and 2) these stools are more watery than usual. Because the body is losing this extra water, the child soon has too little water. When this occurs he is said to be dehydrated. The more water he loses, the more dehydrated he becomes. It is the dehydration that causes the child to be so sick. Diarrhea and dehydration are very common in young children.

Three of the most important life saving functions of a Medic are:

1. Recognizing the 3 degrees of dehydration.

2. Managing dehydration and associated problems.

3. Preventing diarrhea and dehydration by instructing mothers about giving salt-sugar water to their children at home.

There are many interrelated causes of diarrhea. These causes are very important to know and understand in order to help mothers prevent diarrhea. They are less important to the actual treatment of diarrhea and dehydration. Some of the most important causes of (or factors related to) diarrhea are:

1. Intestinal infections:

   - Viral. 60% of diarrhea cases are viral and are usually mild. Viruses do not respond to antibiotics. Treatment is O.R.S. and fluids.

   - Bacterial. (examples: cholera, shigella) Bacterial diseases can be treated with specific antibiotics in many cases. An important part of treatment, however, is O.R.S. and fluids.

   - Parasite. Amebas or giardia may cause diarrhea, but worm infestations usually do not. There is specific medications for these parasites. An important part of treatment is O.R.S. and fluids.

2. Malnutrition - Poor nutrition causes Malabsorption and weakens the patient causing diarrhea from other causes to be worse. Treatment is good food, O.R.S., fluids, and medicines for any bacterial or parasitic infection.

3. Weaning - Many children between 6 months and 2 years of age develop diarrhea as they are being weaned from the breast to an adult diet. This is especially true if weaning is done too quickly. For children in this 6 month to 2 year age group, you will hear the term "weaning diarrhea" used.

Bottle feeding - It is now very clear that infants who are bottle fed have many more episodes of diarrhea than do breast fed infants. This is especially true where refrigeration and water piped into the house are absent. BREAST MILK IS THE BEST FOOD FOR INFANTS AND IT IS NATURAL!

Allergies, intolerance to certain foods - This is an unusual cause and should be considered last. Treatment is to stop the food causing the problem, replacing it in the diet with food of equivalent nutritional value. Give O.R.S. and fluids if dehydrated.

Laxatives, purges, certain poisons and medications. Treatment is to stop the irritating chemical or drug and take O.R.S. and fluids.

Infections outside the intestine - (Examples: ear infections, measles, malaria). Treatment is of the infection plus O.R.S. and fluids.

ildren utilize about 5 times as much liquid/lb/day as adults. hydration is caused by the increased loss of water and ectrolytes in the diarrhea stools. Children are consequently ch more vulnerable to dehydration than adults.

idemiology

arrhea and dehydration, in the more severe form, are seen almost clusively in the poor communities around the world. This is imarily due to the poor nutritional sanitary conditions seen in ese communities. These two factors are further complicated by e fact that many mothers withhold food and liquids (including east feeding) from infants and children with diarrhea. This is ne because they believe that it will help the baby by slowing the arrhea. It may in some cases slow the diarrhea. But more portantly, it causes the baby to become more dehydrated and aker by not replacing the lost fluids.

l ages can be affected by diarrhea and dehydration; however, most the serious cases occur in children below the age of 3 years.

evention

arrhea can be prevented by:

1. Breast feeding (up to age 2-3 years)
2. Boiling all water given to children.
3. Following the Six Basic Rules of good nutrition (see malnutrition).
4. Using latrines and keeping houses clean.

GENERAL TREATMENTS FOR DIARRHEA: (For specific treatments see discussion of particular disease)

For most cases of diarrhea no medicine is needed. If diarrhea is severe, the biggest danger is dehydration. If diarrhea lasts a long time, the biggest danger is malnutrition.

Therefore, the most important part of treatment is fluid and food.

No matter what the cause of diarrhea, always do the following:

1. Prevent or control dehydration - A person with watery diarrhea must drink large amounts of liquids. If diarrhea is severe or there are signs of dehydration, give him O.R.S. Even if he does not want to drink insist he must. Have him take several swallows every few minutes.

2. Meet nutritional needs - A person with diarrhea needs food as soon as he can eat. This is especially important in small children or persons already poorly nourished.

A A baby with diarrhea should continue breast feeding. Breast milk is the best food for a baby. It does not cause diarrhea and will help the baby get better quickly.

B. A small or underweight child, or anyone thin or weak, should get plenty of body building foods (proteins) and energy foods during diarrhea and after. If the patient stops eating because he is too sick or vomiting, he should eat again as soon as possible.

Giving food may appear to cause more frequent stools at first, but it may be life-saving.

C. If a child who is underweight has diarrhea for many days or which keeps coming back, give him more good food rich in protein. Often no other treatment is needed.

D. When an older child or adult who is well nourished has severe acute diarrhea, he may recover more quickly on a liquid diet of teas, broths, or O.R.S. But if the diarrhea lasts more than 1 day he should begin taking food.

Clinical Picture

The important clinical findings are those related to the levels of dehydration. As the child loses more fluid and electrolytes with the diarrhea (and vomiting) he becomes more hydrated.

Mild dehydration - 5% or less of body weight is lost.

For example a child usually weighing 10 kilos will have lost up to 1/2 kilo. He will now weigh 9-1/2 to 10 kg.

Signs and Symptoms

- diarrhea
- thirst
- good skin turgor
- Child generally appears "well" (unless also sick with another problem)

Moderate dehydration - 5-10 % of body weight lost.

A 10 kg child now would weigh between 9 and 9-1/2 kg.

Signs and Symptoms

- dry lips, mouth and skin
- decreased tear formation when crying
- Slight to moderate sunken eyes
- slight to moderate sunken fontanelle (infants)
- slight to moderate decrease in elasticity or turgor of the skin
- Respiration 30-40/min
- Pulse 120-140/min
- skin pink
- decreased urine output
- child is irritable and restless. Appears sick.

Severe dehydration - 10-15% body weight lost. A 10 kg child now weighs 8-1/2 to 9 kg.

Signs and Symptoms

- Very dry lips, mouth. skin and eyes
- Markedly sunken eyes
- Marked sunken fontanelle
- Markedly decreased elasticity of the skin

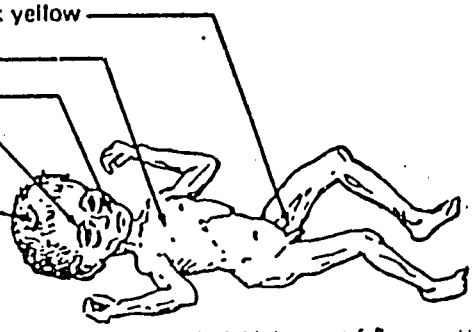
- Respirations 40-60/min deep
- Pulse over 140 and weak
- Cyanosis or pale, and cool
- Decreased or absence of urine output
- Children who are severely dehydrated appear very sick. They may even be semi comatose in shock or have convulsions.

Children who are more than 15% dehydrated will usually die.

PHYSICAL ASSESSMENT OF PATIENT WITH DEHYDRATION.

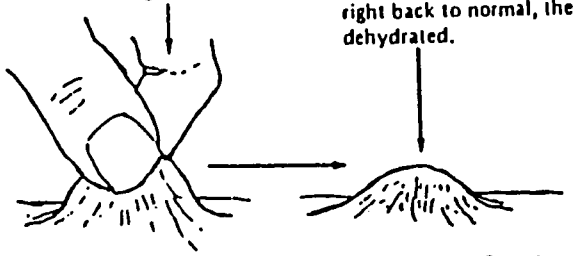
Signs of dehydration:

- little or no urine; the urine is dark yellow
- sudden weight loss
- dry mouth
- sunken, tearless eyes
- sagging in of the 'soft spot' in infants
- loss of elasticity or stretchiness of the skin



Lift the skin between two fingers, like this. . . .

If the skin fold does not fall right back to normal, the child is dehydrated.



Very severe dehydration may cause rapid, weak pulse (see Shock fast, deep breathing, fever, or fits

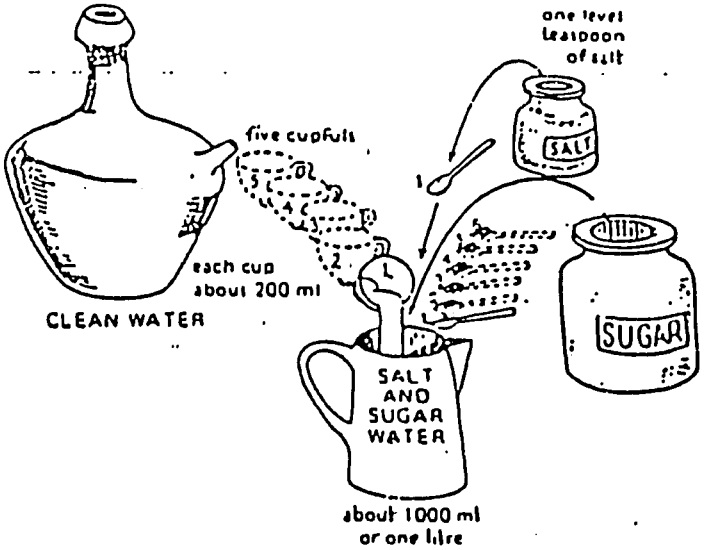
PREVENTION OF DEHYDRATION

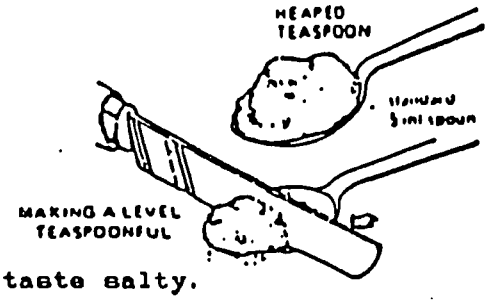
1. The patient with diarrhea should drink large amounts of liquids: water, tea, soup.
2. Prevent dehydration in diarrhea: give plenty of liquids including Oral Rehydration Solution (ORS). To make ORS, add

1 packet of ORS salts +

1 liter or 8 glasses of cooled, boiled water

If you do not have ORS salts, add:
8 tsps sugar or honey (one handful)
1 tsp salt (two pinches)
to the cooled, boiled water.





ALWAYS taste ORS: it should not taste salty.

Rehydration

Mild Dehydration. If the child has mild diarrhea, is thirsty, is not vomiting and has none of the physical signs of dehydration, then he can be rehydrated at home by the mother with salt-sugar solution. Before mother and child leave for home the following things should be done:

1. Mother demonstrates how to make salt and sugar solution.

2. Child drinks some of the solution and urinates.

3. Mother is able to explain how much solution she is to give the child.

Breastfeeding children. Offer breast feedings about every 3 hours throughout the day and night. Offer as much salt-sugar solution as the baby will take, in between breast-feedings.

Non-breast-feeding children. Mothers should give salt-sugar solution by mouth about every 3 hours throughout the day and night. The minimum amount to be given in 24 hours can be determined from the following table:

Mild Dehydration Fluid Needs for 24 Hours (Oral)

weight	age	Amount of oral fluid	liters	cups
2.5 kg	Newborn	500 ml	1/2	2-1/2
5 kg	2 months	1000 ml	1	5
10 kg	1 year	1500 ml	1-1/2	7-1/2
15 kg	3 years	2250 ml	2-1/4	11
20 kg	6 years	3000 ml	3	15

Give a dehydrated person sips of this ORS every 5 minutes DAY & NIGHT until he begins to urinate normally. An adult needs at least 3 liters per day. A small child needs at least 1 liter per day or 1 glass for each loose stool. A dehydrated person is THIRSTY and will want to drink the entire glass at once. Don't allow this, it can cause VOMITING.

Moderate Dehydration

A child with moderate dehydration should be rehydrated by mouth unless 1) he is vomiting or 2) he won't drink very well. Keep the child in the clinic. Have the mother give him as much salt- sugar

solution as he will take in 2 to 3 hours. He should get at least an amount equal to his weight (in kgs.) x 20 mls.

If the patient is too WEAK to drink, give the ORS by a syringe into the mouth. If there is no improvement in 3 hours a nasogastric tube may be necessary.

Keep giving ORS in small sips - even if vomiting occurs.

For an infant, have the mother continue breast feeding at least every 3 hours. Give ORS in sips or with a syringe into the mouth between breast feeding. See nutrition (p...).

If vomiting continues and there is no urine in 3 hours give

Phenergan- Adults 25 mg IM;
- Children (based on 0.5 mg/kg/dose)
  5-15 years - 15 mg IM
  1-5 years - 5 mg IM
  Do not use in children under 1 year.

This dose may be repeated in 1 hour if vomiting continues.

If there is still no urine after a total of 6 hours, begin intravenous rehydration. Always use normal saline (0.9% sodium chloride). Lactated ringer's solution is acceptable, too. Continue to give ORS and food orally when possible. Carefully monitor vital signs and urine output.

REMEMBER: DEHYDRATION CAN ALMOST ALWAYS BE TREATED ORALLY. An intravenous line is difficult in a dehydrated person. A nasogastric tube is an alternative.

Intravenous Fluid Requirements:

The child's weight in kilograms x 20 = ml. To run in Quickly. (Example: for a 12 kg child, multiply 12 x 20 = 240 ml.) If the child still appears dehydrated, this procedure should be repeated

OR

Just double the maintenance fluid requirement (see the next page to calculate maintenance fluid requirements). Based on this:

age	1-11 months	1-5 years	5-15 years	adult
i.v. rate ml/hour	40	80	120	200

Severe Dehydration

These children are often malnourished as well as dehydrated. They are very sick and at grave risk of dying. They should be treated at a hospital where 24 hour care is available if possible. An I.V. should be started immediately. The child's weight in kilograms x 20 = ml. (Example: 15 kg child would take 15 x 20 = 300 ml.) this amount is run in as quickly as possible. The patient is then reevaluated.

If the child still appears dehydrated, start the same amount again. Caution! Watch the eyelids for edema the first sign of over hydration. Following this initial rapid rehydration, the amount of fluid to be given each hour is figured as followed:

Weight of child	Amount of I.V. Fluid to be given after initial rehydration.
under 5 kg	25 ml per hour
5-9 kg	50 ml per hour
10-14 kg	75 ml per hour
15 kg or more	100 ml per hour

Be careful not to over hydrate. The earliest sign of over hydration is edema of the eyelids. If over hydration does occur, the drip should be removed. No other treatment is required.

ONCE THE PATIENT IS URINATING NORMALLY, REDUCE THE RATE TO ONE HALF.

ONCE THE PATIENT IS DRINKING ORS, STOP THE INTRAVENOUS LINE. AFTER TREATING DEHYDRATION, TREAT THE DISEASE THAT CAUSED IT.

FLUID REQUIREMENTS

You can estimate the amount of fluid that a person needs in twenty-four hours based on his weight. This amount is called the maintenance fluid requirement - it is the amount of fluid a normal person must have each day just to stay healthy. Sick people often need more fluid than this estimate, especially people with these problems:

BURNS	DIARRHEA	VOMITING
ACUTE ABDOMEN		ANY DISEASE WITH HIGH FEVER

In these diseases, more fluid than the maintenance amount is required: sometimes double or triple the maintenance amount. When the patient is awake and can drink fluids, the patient's thirst is the best guide to rehydration.

REMEMBER: It is always important to check the vital signs and to measure the output of urine. When the urination is normal in amount and frequency, dehydration is much better.

The MAINTENANCE fluid requirement is based on the patient's weight:

first 10 kg	- 100 ml/kg/day
next 10 kg	- add 50 ml/kg/day
weight over 20 kg	- add 20 ml/kg/day

EXAMPLES:

7 kg child - 7 x 100 = 700 ml/24 hours

13 kg child -
10 x 100 = 1000
3 x 50 = 150
1150 ml/24 hours

24 kg child -
10 x 100 = 1000
10 x 50 = 500
4 x 10 = 40
1540 ml/24 hours

Now, calculate the MAINTENANCE fluid requirement for children who weigh 8, 13, 17, 26 and 37 kilograms.

2. BACTERIAL DIARRHEA OR BACILLARY DYSENTERY

Bacterial diarrhea is less common than viral diarrhea. Like viral diarrhea it is a disease that is usually not dangerous except to children who are MALNOURISHED or DEHYDRATED. Bacterial diarrhea usually lasts from 3 - 7 days. Bacteria can sometimes cause chronic diarrhea.

General Considerations

Dysentery means severe diarrhea with passage of mucus or blood in the stool. This is most often caused by a bacteria or infection of the intestinal walls. The bacteria is usually shigella or salmonella. Both are transmitted by fecal contamination.

Clinical Picture

The patient is well until he experiences a sudden onset of colicky abdominal pains, followed by the passage of bloody stools. Fever is usually present along with tenesmus (the urge to defecate - without much stool).

The diagnosis is confirmed by examining a stained stool preparation and identifying numerous bacteria and pus cells.

Signs and symptoms

- diarrhea--both blood and mucus may be present
- fever is common and may be above 39 degrees
- severe abdominal cramps are common
- tenesmus is common (tenesmus is the sudden strong desire to empty the rectum when no feces are present)
- abdominal tenderness is common

Treatment

- treat and prevent DEHYDRATION.
- trimethoprim-sulfamethazole (Clotrimoxazole, Bactrim, Septra) is given by mouth at the normal dose for 7 days.
- increase fluid intake - use cooled boiled water.
- paracetamol is given for fever.
- breast feeding should be continued.
- children with MALNUTRITION and DEHYDRATION should not leave your clinic for at least 24 hours.
- if there is vomiting, see dehydration.

Follow-up

- if no improvement in 3 days, re-evaluate stool examination
- REMEMBER: check for signs of the other causes of diarrhea
- Avoid spread of the disease by strict observance of cleanliness when disposing of the stool.

3. AMOEBIASIS

General Considerations

This diarrheal condition is caused by protozoan entoemeba histolytica. The microbes migrate to the large intestine when the patient eats food or water contaminated with amoeba containing feces. The disease occurs in all ages and in both sexes. Amoeba may live in the large intestine and cause no symptoms. Amoeba may cause chronic diarrhea.

Clinical Picture

The patient usually has a history of repeated mild attacks of diarrhea. There is usually no fever. Occasionally, the inflammation of the bowel is so severe that the stool will contain blood and mucus. There may be mild abdominal pain. Any person complaining intermittently of one or two loose motions with blood over many weeks or months, history of indigestion and dyspepsia is probably suffering from chronic dysentery.

Signs and symptoms

- diarrhea--both blood and mucus may be present (dysentery)
- fever is usually not present though sometimes high fever may be present
- lower abdominal cramping pain is common
- tenesmus

Complications

The amoeba can move through the intestinal wall into the bloodstream. From here it can migrate anywhere, but the most common site is the portal circulation. Here it can cause severe liver damage due to abscess formation. Other less common sites of amoebic abscess are the lungs and the brain. The diagnosis is confirmed by seeing active amoebic tropozoites or ova in a fresh stool specimen.

Laboratory

- stool smear will show both motile (moving) amoeba and cells (see laboratory manual)

Treatment

- treat and prevent DEHYDRATION ...
- metronidazole (Flagyl) is given by mouth at the high dose for 10 days
- increase fluid intake--use cooled boiled water
- give paracetamol for fever

Prevention

- teach to avoid fecal contamination of food and water supplies

Follow-up

- if no improvement after treatment, re-evaluate: perform stool examination

4. GIARDIASIS

Giardiasis is diarrhea caused by giardia. Giardia is a common cause of CHRONIC diarrhea that is usually not dangerous. Giardia may also cause chronic vague abdominal pain.

Signs and symptoms
- diarrhea--WITHOUT blood or mucus
- fever is uncommon
- vomiting is uncommon
- tenesmus is uncommon

Laboratory
- giardia cysts are often NOT FOUND in the stool examination 40% missed even with 3 samples

Treatment
metronidazole (Flagyl) by mouth at the normal dose of (5 mg/kg/dose) tid children or 250 mg tid adults x 3 days

Follow-up
- if no improvement after treatment, re-evaluate: remember other causes of diarrhea

Complications
- failure to thrive in children (common) plus frequent malnutrition.

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5. CHOLERA

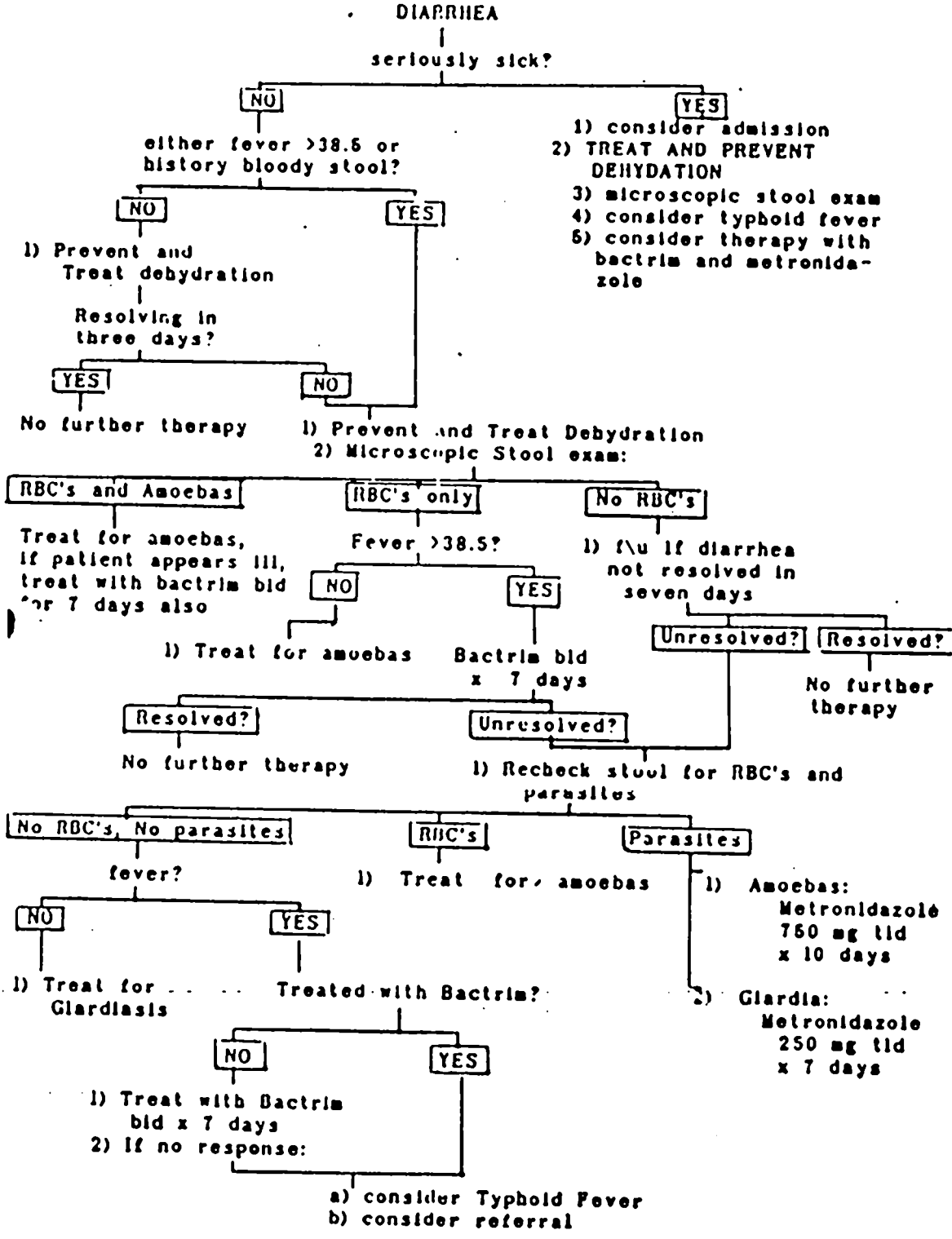
Cholera is a very rare type of bacterial diarrhea which can cause SEVERE DEHYDRATION and DEATH. Cholera is spread by contamination of food or water by infected feces or in infected food. It causes up to 1 liter/hour of watery diarrhea ("rice water"). If the patient survives, the diarrhea will stop without treatment in 5 to 7 days.

Signs and symptoms
- watery diarrhea--up to 1 liter per hour (like rice water)
- DEHYDRATION is very common
- vomiting is common
- shock is common due to dehydration

- muscle cramps from the loss of salts in the diarrhea occur
- fever is UNCOMMON

Laboratory
- there is no laboratory test

Treatment
- begin treatment for DEHYDRATION immediately
- begin tetracycline by mouth at the normal dose for seven days
- teach to dispose of feces away from water and food


DIARRHEA
seriously sick?
NO
YES
1) consider admission
2) TREAT AND PREVENT DEHYDATION
3) microscopic stool exam
4) consider typhoid fever
5) consider therapy with bactrim and metronidazole
either fever >38.5 or history bloody stool?
NO
YES
1) Prevent and Treat dehydration
Resolving in three days?
YES
NO
No further therapy
1) Prevent and Treat Dehydration
2) Microscopic Stool exam:
RBC's and Amoebas
RBC's only
No RBC's
Treat for amoebas, if patient appears ill, treat with bactrim bid for 7 days also
Fever >38.5?
NO
YES
1) Treat for amoebas
Bactrim bid x 7 days
Resolved?
Unresolved?
No further therapy
1) f\u if diarrhea not resolved in seven days
Unresolved?
Resolved?
No further therapy
1) Recheck stool for RBC's and parasites
No RBC's, No parasites
RBC's
Parasites
fever?
1) Treat for amoebas
1) Amoebas: Metronidazole 750 mg tid x 10 days
NO
YES
1) Treat for Giardiasis
Treated with Bactrim?
2) Giardia: Metronidazole 250 mg tid x 7 days
NO
YES
1) Treat with Bactrim bid x 7 days
2) If no response:
a) consider Typhoid Fever
b) consider referral

2. Treat fever and dehydration when present.
3. Isolate patient. Wash hands carefully after contact with patient.

Note: If the patient is no better after 3 days of treatment, treat for malaria, too. Observe for signs and symptoms of acute abdomen and complications.

WORMS

Intestinal worms are a very common disease which is rarely dangerous. Worms are dangerous when they cause malnutrition or anemia. Worms are passed from one person to the next by contamination of food or water with feces.

There are two kinds of worms: round worms and segmented worms. There are three kinds of round worms. There are two kinds of segmented worms. These different worms may be distinguished by the patient history and stool examination.

ROUND WORMS

Ascaris

Ascaris is the largest of the round worms and also the most common of any worm infection. The worm is between 15 and 40 cm in length. These worms live in the intestine and shed 200,000 eggs/day.

Hookworms

Hookworms are a smaller round worm. They are about one cm in length. They live in the small intestine and they do suck blood. They can cause anemia. The worm eggs are deposited in the soil in infected stool. These worms, unlike the others, enter the body through the skin, usually of bare feet.

Pinworms

Pinworm infection is common but not dangerous. These are the smallest round worm. They are less than 1 cm in length. The worms live in the rectum. The females travel out through the anus at night and lay their eggs around the anus. The laying of the eggs causes itching around the anus which is the most common chief complaint in children with pinworms.

SEGMENTED WORMS

Beef Tapeworm

The beef tapeworm is the most common segmented worm. It lives in the intestine and may be as large as 5 to 10 meters. Though they are very large, they are rarely dangerous. Beef tapeworms enter the gastrointestinal tract when incompletely cooked infected beef is eaten. It may cause B-12 deficiency, rarely.

Dwarf Tapeworm (H. nana)

This segmented worm is less common than the beef tapeworm. It is much smaller: usually only 2.5 cm in length. The dwarf tapeworm enters the gastrointestinal tract when the eggs are eaten. This usually happens to children who play in dirt contaminated by infected feces.

Effect on Health:

A small number of worms in the body does not cause symptoms, so by the time a person actually develops symptoms, the number of worms infecting the person is very large.

Worms can cause a loss of weight in an infected person because they consume the food that a person needs to grow, live, and work. Worms can cause abdominal pain if there are too many in number. They can even make themselves into a ball which may obstruct the intestine.

* Hookworms cause anemia by sucking the blood of an infected person.

* Pin worms cause itching of the anus.

* Worms can even cause diarrhea or vomiting.

Diagnosis:

Intestinal worms lay their eggs in the gut, and are then passed out of the body in the feces, we can see the eggs and larvae under the microscope, where they are easily identified.

Life cycle of the Worm (How Worms are Spread):

Worms breed differently from bacteria, viruses and other germs: they do not multiply inside the body. But once they enter the body, they lay eggs, which are passed out of the infected person's body in his feces. Other animals or humans may then become infected in a variety of ways.

Each kind of worm has a different life cycle. In the case of round worms and pinworms, the worms enter the body via the mouth through dirty food and hands; tape worms enter the body through uncooked meat. Hookworms enter the body through the skin.

Life cycle of Round Worms (Ascaris):

1) Adult worms live in the small intestine where they lay large numbers of eggs, about 200,000 per day.
2) Eggs are passed out of the body with the feces into the soil (and can contaminate vegetables).
3) The larvae develop inside the eggs.
4) The eggs are swallowed when they are present in uncooked food. The eggs enter the intestine.
5) After penetrating the intestinal wall, the larvae go to the lungs via the circulating blood, where they grow.
6) The eggs again enter the intestine via the trachea and stomach and grow into adult worms.

The Life cycle of Pin Worms:

1) The adult worm lives in the large intestine. The female migrates to the anus and lays eggs. The eggs contain larvae which can reinfect the patient himself or can infect another person through:

   a) Putting the fingers in the mouth after scratching the anus area. This is called autoinfection.
   b) After being swallowed, the eggs enter the stomach and small intestine. Then a mature worm develops in the lower small intestine and migrates to discharge eggs.

The Life cycle of Tape Worms:

1) Adult worms are found in the intestine of man.
2) Eggs are then passed out of the body in feces.
3) Eggs then contaminate the grass and are eaten by cows.
4) Larvae are then produced in the intestine of cow.
5) The larvae enter the bloodstream and are carried to muscles.
6) Infected meat containing the larvae is eaten by humans.
7) The larvae reach the small intestine of the man and develop into adult worms.

The Life cycle of Hookworms:

1) Adult worms attach to the walls of the small intestine by their hooks.
2) Female worms lay large numbers of eggs which are passed out of the body with the feces.
3) They develop into larvae in the soil.
4) Larvae penetrate the skin of a new host through the feet.
5) The larvae migrate via the blood to the heart and the lungs.
6) Larvae then grow and enter the trachea, mouth, stomach and small intestines, where they become mature.

A. Methods of Transmission.

The most common means of transmission of intestinal diseases may be referred to as the 5 f"s: feces, fingers, flies, food and fluids. The principal source of the organism which cause intestinal diseases is the feces of man: however these organisms may be present in such foods as beef, pork, fish, poultry and eggs which have been improperly prepared. Food may also be contaminated with these organisms by rodents. The organisms may be transmitted in any of the following ways:

1) Food may be contaminated by infected food handlers who are careless or dirty in their personal habits or by houseflies which carry germs directly from the latrine to the kitchen. Also, germs may be carried directly to the mouth by feces- contaminated fingers.

2) Carcasses of beef, poultry and fish may be contaminated with germs from the intestines of these animals by improper or careless dressing procedures. Eggs can become fecally contaminated by the fowl on the nest.

Inadequate or improper cooking of these foods permits the germs to survive and infect the consumer. Any source of foods of animal origin which has not been inspected and approved should be considered a potential health hazard.

3) Natural sources of water, such as lakes and streams, are often polluted by drainage form latrines and sewers. Springs and wells may be similarly contaminated. In the field any careless disposal of human waste is a source of danger. Such waste material may drain into a nearby water sources or furnish a breeding place for flies.

4) Rodents frequently urinate or defecate on foods to which they have access and in this way contaminate the foods with disease organisms.

B. Control Measures

The most effective measures for preventing intestinal disease are those which control the reservoir of the diseases and the vehicles by which they are transmitted; however all possible measures must be utilized.

1) All sources of foods must be inspected and must be carefully selected, inspected and protected at all times.

2) Personal hygiene, particularly washing the hands after each visit to the latrine and before eating or otherwise handling food, must be practiced by everyone.

3) Unapproved water sources must be avoided. All water is to be considered contaminated and unsafe to drink unless it has been properly treated and approved for drinking purposes.

4) All human and other wastes must be disposed of properly.

5) Insects and rodents must be effectively controlled to prevent contamination of food and eating utensils.

6) Protect food from flies and dust.

7) Bathe frequently; cleanliness is very important in the control of worms.

8) Cut fingernails short, especially those of children.

9) Keep children from playing in the dirt where feces are passed.

10) Do not let children go barefoot.

11) Eat only well cooked meat.

Worms are associated with diarrhea, abdominal pain, anorexia, weight loss. Diagnosis is made by finding eggs and segments in the stools.

Signs and symptoms

- worms in the stool: round or segmented.
- mild abdominal pain
- abdominal swelling may occur
- itching around the anus at night may occur in children
- MALNUTRITION or ANEMIA may be present in severe cases
- sometimes worms cause itching of the skin with no other symptoms (see skin, itching, p...)

Laboratory

- Stool examination of a fresh stool sample should be performed.

- Be able to identify all of the worms listed above in a stool sample - laboratory time will be provided (see lab manual).

Treatment

- Mebendazole (Vermox) is given for <u>three days</u> for round worms.

age (years)	0 - 3	3 - adult
dose (100 mg tab)	1 tab	1 tab
frequency	1X/day	2X/day

- Niclosamide (Yomesan) if available is given for segmented worms.

age (years)	0 - 2	2 - 6	6 - adult
dose (500 mg tab)	1 tab	2 tab	2 tab
repeat in 1 hour	no	no	yes

If niclosamide is not available, mebendazole may be given for segmented worms--the dose is <u>triple</u> that for round worms.

In cases of infection by H. nana (dwarf tapeworm), repeated treatment may be required. In these cases, the first day's dose is as above - on each of the next six days, only one dose is given.

Prevention

- hand washing with soap.
- teach to dispose of feces away from water supply and food.
- teach parents not to allow barefooted children to play in feces.
- do not eat meat that is undercooked: meat should not be raw in the center.

MALNUTRITION

I. General Considerations

Introduction

Malnutrition is a term meaning "Bad or Poor Food Intake". The child with malnutrition simply is not getting enough of the necessary foods needed by all children. There are different levels of malnutrition. When a child is not getting enough good food the earliest sign is that he is not growing properly. When growth retardation is slight, it is called mild malnutrition. When the growth retardation becomes marked, it is called moderately severe malnutrition. We consider children with mild or moderately severe malnutrition to be at high risk for developing severe malnutrition and/or severe infections.

If a child continues to be poorly nourished, he will develop the physical signs of severe malnutrition. If the child's diet is severely lacking in both protein and carbohydrates, he will develop Marasmus. He begins to look like "skin and bones". When the diet is severely lacking in protein but the child is getting a fair amount of carbohydrates, he will develop kwashiorkor. His feet and ankles develop pitting edema, the skin flakes off, there is severe wasting of muscle, and he appears miserable.

Cause

Malnutrition is caused by lack of good food. Nutrition is influenced by breastfeeding and weaning practices, choice of foods, storing of food, poverty, agricultural practices and other factors. It is essential for the health of the children of the community to help prevent malnutrition. Mothers need to be taught about the importance of:

1. Breastfeeding until 2-3 years of age and weaning slowly.

2. Giving children a variety of nutritious foods frequently, beginning at age 4-6 months.

3. Continuing to feed children who are sick.

II. Epidemiology

Malnutrition is found in all parts of the world but is most common among poor and uneducated people. It occurs at all times of the year but is naturally most common during the season when food is in shortest supply. Most malnutrition occurs between the ages of six months and three years. This is when children are being weaned

s the breast to an adult diet. It is difficult to make this :ch especially if:

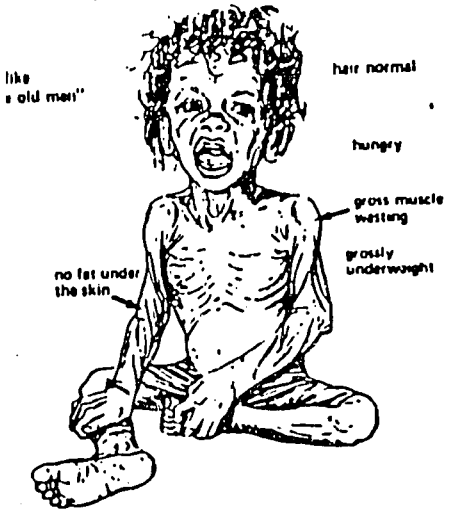
1. the adult diet is low in protein, and
2. weaning takes place too quickly.

, Clinical Picture

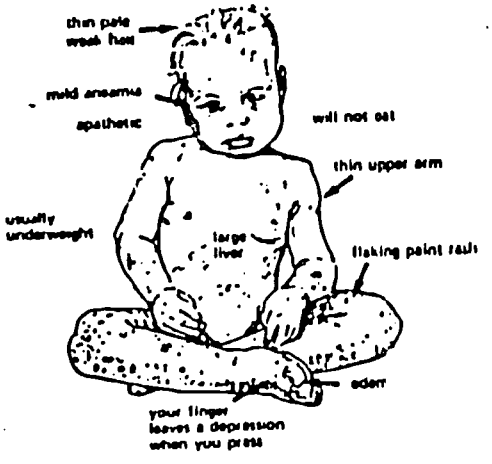
earliest sign of malnutrition is failure to grow. The child not growing as fast as well-fed children of his age.

s growth failure can only be seen if the child is weighed iodically in the child care clinic. His growth can then be pared to the normal growth curves on the Growth Chart. If the ld continues to be poorly fed over a period of several months, will develop severe malnutrition - either Marasmus or shiorkor (or a combination of both). Severe malnutrition quently occurs just after an infection such as measles or bad rrhea, or at the time of weaning. Unfortunately, children who suffering from malnutrition are also more likely to develop h an infection. One of the important things to do to break this le is to improve the child's diet by educating the mother and her.

- Failure to grow or gain weight normally
- Slowness in walking, talking, or thinking
- Swollen belly, thin arms and legs
- Swelling of feet, face and hands, often with sores or ks on the skin.
- Thinning or loss of hair, or loss of its color (appears) or shine. The texture of the hair becomes coarse.
- Dryness of eyes, blindness
- Sadness



A child with marasmus



A child with kwashiorkor

Malnutrition in children may be life-threatening. The two extreme forms of malnutrition are Marasmus (dry malnutrition) and Kwashiorkor (wet malnutrition).

1. Marasmus (dry malnutrition): is from not eating enough. It is total deprivation.

   This child does not get enough of any kind of food, especally energy foods. He is said to have dry malnutrition or Marasmus. In other words, he is starved. His body is small, very thin, and wasted. He is little more than skin and bones. Weaning has often been early. This child is usually between 6-24 months old.

   This child needs more food - especially energy foods.

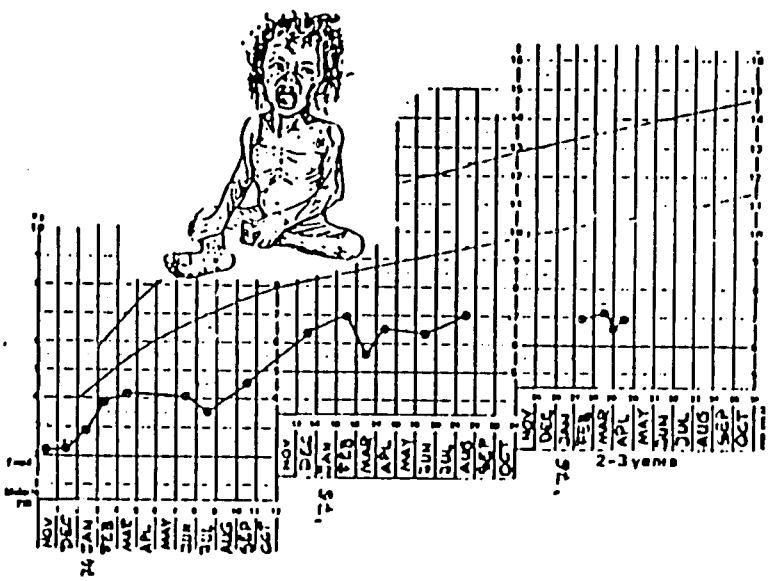


Fig 31 A growth chart of a typical child with marasmus

washiorkor (wet malnutrition): is from not eating enough protein.

This child has not been eating enough body-building foods, or proteins, although he may be getting enough energy foods. He is said to have kwashiorkor. This is also called wet malnutrition because his feet, hands and face are swollen. Although he may look somewhat fat, he has very little muscle left. He is little more than skin, bones and water. His hair will be thinner, coarse and often red in color. The hair will often break easily. Because hair takes time to grow, it reflects the child's nutritional status 1-3 months previously. The Kwashikor child is unhappy and irritable. This child is usually between 18-48 months of age.

This child needs more foods rich in protein.

Kwashiorkor is seen most often in babies who stopped breast feeding too early and are given foods made with rice, corn, sugar, or other energy foods without enough milk or other protein-rich food.

Kwashiorkor sometimes appears when the child has diarrhea or another infection. A child with diarrhea for several days may develop swollen hands and feet, swollen face, purple spots or peeling sores on his legs. This child needs more good food.

Because of swelling, and because he may even have some fat, the child with Kwashiorkor may look plump, but his muscles are wasted and his upper arms surprisingly thin.

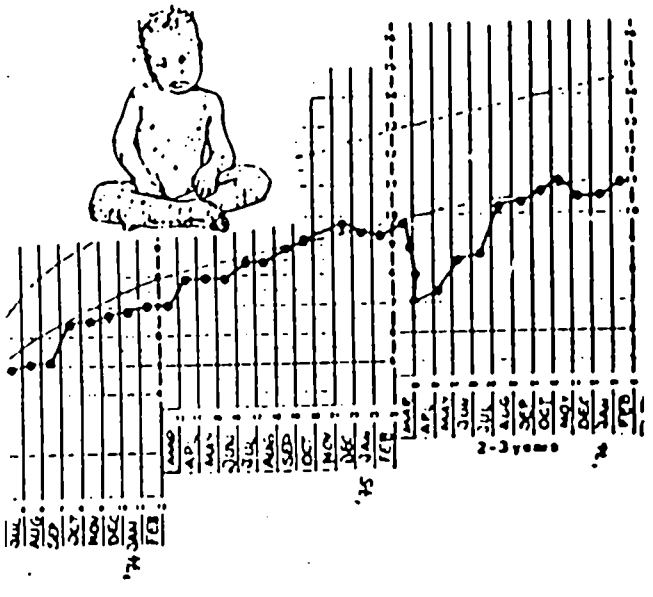


Fig 33 Growth chart of a child with kwashiorkor

Neither kwashiorkor or marasmus develops all at once. A child may already be fairly malnourished and still show few signs. A good way to check if a child is poorly nourished is to measure the distance around his upper arm.

Course of the Disease

Mild to moderate malnutrition may be present for many weeks or even months. The appearance of Marasmus comes slowly as the malnutrition gradually worsens. Kwashiorkor on the other hand can appear suddenly over a period of a few weeks. It commonly occurs following some infection, especially measles or diarrhea. Both Kwashiorkor and Marasmus are dangerous, but of the two Kwashiorkor is the most dangerous. If not managed quickly and properly Kwashiorkor will soon result in death.

Prevention and Treatment of Malnutrition

Both Marasmus and Kwashiorkor can be prevented or treated by eating enough of a balance of nutritious foods. For babies, breast milk is the best food. Breast feeding should be continued as long as possible. Some mothers breast feed for 2 years or longer. The mother needs more protein, vegetables, fruits and energy foods in her diet so that she will make plenty of milk for the baby.

After the first 4 to 6 months the baby should also begin to take other nutritious foods in addition to breast milk.

IV. Management

Mild to Moderately Severe Malnutrition

(Children with growth retardation, as seen on their growth charts, but without the signs of severe malnutrition)

1. More and better food at home. The parents should be taught the Six Basic Rules for treating malnutrition.

Rule I	Breast feed until child is 2-3 years old.
Rule II	Start kitchri at four months. (Made with grains and beans-1 c. rice + 1/2 c. Daal + oil).
Rule III	Add other protein foods to cereal mix. Such as: eggs, milk, fish, meat.
Rule IV	Give a variety of fruits and vegetables to children over 4 months old. This includes yellow and green leafy vegetables.
Rule V	Feed child at least 4 meals a day. Children need

to eat more often than adults because their stomachs are small.

Rule VI Continue to feed sick children.

2. See often in the regular child care clinic or even better at a special nutrition clinic. If you have several malnourished children you are following, you can start a special "nutrition education" clinic. This will give you the opportunity to teach several families at the same time about better foods.

3. Maintain Growth Chart: These patients should be considered High Risk. Extra effort should be made to follow these "High Risk" children as closely as possible. Special attention will be required to assure they are well immunized and that their nutritional status is improving.

Severe malnutrition

Children with signs of Marasmus and/or Kwashiorkor fall into this group. Children who are so ill that they are unable to eat should be managed at the nearest hospital or health center if possible.

Fortified Milk Solutions

The initial treatment consists of milk with oil and sugar. Powdered nonfat milk or powdered full cream milk can be mixed up with oil and sugar and stored in the dispensary. Any type of vegetable oil can be used.

When needed these powdered mixtures or whole milk are mixed with water (see formulas page 35) Do not mix the powders with water more than 4 to 6 hours prior to use or it will sour.

A. Initial

Not able to take feeding by mouth.

When the child is unable to take feedings by mouth he should be referred to the hospital. If you must treat him at the dispensary or Health Center use an N-G tube until he is able to take feedings from a cup and spoon or breastfeed.

Give Fortified Milk Solution (FMS) through the N-G every 3 hours. The amounts can be calculated according to the following formula. Use dilute strength for the first 2-3 days. Thereafter use full strength mixture.

1st day	50 ml/kg/24 hrs	in 8 divided doses
2nd day	75 ml/kg/24 hrs	in 8 divided doses
thereafter	125 ml/kg/24 hrs	in 8 divided doses

If the child appears dehydrated you should rehydrate him following the rehydration methods. These can be found in the discussion on diarrhea and dehydration.

Remove the N-G tube as soon as the child is able to take feedings by mouth. then follow the directions under "able to take feedings by mouth".

2. Able to take feedings by mouth.

Give FMS alone for about 1 week. Give the child as much as he wants.

Feed every 3 to 4 hours night and day. Offer water between feedings.

B. Vitamins and Minerals

1. Give multivitamin
2. Give vitamin A 5000 units daily - should be given for at least three weeks. Check tablet dosage to avoid overdose in children.
3. Give folic acid 2 mg daily. These should be given through the N-G tube when one is being used.

C. Management after the 1st week.

1. Make sure the parents understand that it is the lack of food that causes this disease.
2. Slowly start giving cereal mix plus vegetables, in addition to milk solution.
3. Have mother give a variety of soft foods, including fruits and vegetables, fish, eggs, and meat, as soon as the child is able to take it without diarrhea.
4. Teach the parents the Six Basic Rules for avoiding malnutrition in their children.
5. See often in the regular child care clinic or even better at a special nutrition clinic. If you have several malnourished children you are following, you can start a special "nutrition education" clinic. This will give you the opportunity to teach several families at the same time about better foods.
6. Maintain Growth Chart: These patients should be written into "High Risk Registry" kept in the clinic. Extra effort should be made to follow these "High Risk" children as closely as possible. Special attention will be require to assure they are will immunized and that their nutritional status is improving.

Complications

Children who are malnourished are likely to have some infection in

addition to their malnutrition. You should examine them carefully. The following diseases are frequently associated with malnutrition.

1. Diarrhea/dehydration
2. T.B.
3. Pneumonia
4. Otitis media
5. Xerophthalmia (night blindness due to Vitamin A deficiency)
6. Malaria

Look for these diseases (and others) and treat them according to the respective management protocols.

Prevention

1. Child Care Clinic

The prevention of malnutrition is one of the primary functions of the Child Care Clinic. The Growth Chart helps to identify children with mild (or early), malnutrition. These children are then considered at high risk of becoming severely malnourished and/or severely ill with an infection. These children and their parents should be given extra attention and advice about feeding.

2. Six Basic Rules

All parents should be taught the six basic rules for avoiding malnutrition in their children.

Rule I Breast feed until child is 2-3 years old.

Rule II Start cereal mix at four months. (Made with grains and beans plus vegetables).

Rule III Add other protein foods to cereal mix. Such as: eggs, milk, fish, meat.

Rule IV Give a variety of fruits and vegetables to children over 4 months old. This includes yellow and green leafy vegetables, as well as all other fruits and vegetables.

Rule V Feed child at least 4 meals a day. Children need to eat more often than adults because their stomachs are small.

Rule VI Continue to feed sick children.

After the age of two years, everyone can eat the same food. Many people in Afghanistan are poorly nourished because they are eating only rice , nan and tea. Teach them to plant many crops and to eat a large variety of food. This way they will be well nourished and healthier.

Specific deficiencies are described briefly below, along with the more common complaints that they are frequently confused with.

Iodine Deficiency

This is very common in the mountainous regions of northern Afghanistan. It is present wherever goiters are found. Goiters are caused by enlargement of the thyroid gland located at the base of the neck. They are more common in women for unknown reasons. Iodine deficiency is a serious problem for an entire population, not just a cosmetic deformity in women.

Iodine is necessary for normal development of the fetus prior to birth. Iodine deficiency causes fetal wastage (spontaneous abortions), low birth weight newborns, and a higher percentage of people with lowered intelligence for their entire lives.

Iodine deficiency occurs in populations living in mountainous regions because most of the water they drink comes from melted snow. Iodine is a substance present in the soil so if water is coming from wells or underground springs the risk of iodine deficiency is less.

Treatment of iodine deficiency can be done with medicine. Treatment may be done for each individual patient, or combined with vaccination programs. In areas affected by iodine deficiency, everyone living in the area should be treated, but treatment is most critical for women, because they are the ones who have babies, and permanent irreversible damage is done to many of these babies.

Once a person has a goiter it will usually persist for life, remaining even after adequate treatment, although often it becomes smaller. Usually it does not cause a problem. If there is a problem after treatment, such as breathing difficulty, the patient should be referred to a hospital.

Remember, goiter treatment is not an emergency. The presence of goiters in a population indicates the need to treat everyone in an organized mass program if possible. The prevention of goiter with the use of iodine (Lugols or even tincture of iodine) 1 drop in 1 glass of water on a weekly basis is enough. For goiter the use of iodine 5 drops in a glass of water for 1 month followed by the daily regimen may help decrease the goiter or avoid complications. [Refer to endocrine section for discussion.]

Iron Deficiency

This is a common disorder in women who have had multiple pregnancies and in children who have received only breastmilk beyond the age of 6 months. In areas where people are working

barefoot in muddy fields, hookworm infestation may also aggravate anemia.

Foods rich in iron include meat, eggs and green vegetables. These foods are often expensive or difficult to obtain, in which case ferrous sulfate tablets may be necessary. Generally, the medication should be continued for at least 3 months.
[Refer to Hematology section for discussion.]

Other Nutritional Deficiencies

Except for iodine and iron deficiencies, specific nutritional deficiencies are very rare in Afghanistan, and so they will be described only briefly.

Vitamin A Deficiency

This is a leading cause of blindness in many parts of the world where the people do not eat enough green and yellow vegetables. In Afghanistan, children with measles or with chronic diarrhea are the greatest risk. The best treatment is prevention with proper foods, but if vitamin A pills are available, it is a good idea to give one pill daily for 2-4 days to all children with measles or prolonged repeated bouts of diarrhea.

Excessive vitamin A is also dangerous. A few pills every 6 months are sufficient.

Vitamin C Deficiency

This very rare disease occurs in people who don't eat fresh fruit or vegetables. In this deficiency, bleeding from the mouth and easy bruising occurs.

In Afghanistan bleeding from the gums is very common, but in almost all cases this is due to poor dental hygiene, and it will only be helped by proper cleaning of the teeth, not Vitamin C.

Clean food and plenty of variety is the key to good health. Teach your patients proper nutrition: fruits, vegetables, meat products, not just rice, nan and tea!

MALNUTRITION

Review Questions

1. What is the best way of identifying a child who is suffering from the effects of mild malnutrition? (Check the correct answer).

   a. Observe general appearance

GROWTH AND DEVELOPMENT

Monitoring Growth

This section refers to the growth chart below. The growth is a very useful tool in monitoring growth of children. The chart is difficult to use correctly. One must ensure that 1) the information is collected correctly, and 2) it is written onto the chart correctly.

Recording information

The most important information is the direction of the child's GROWTH CURVE. This is the line between the different weighings written on the growth chart. In order to record each weighing on the chart, the medic must be able to find the correct point for weight and age. The following instructions are for correctly using the growth chart.

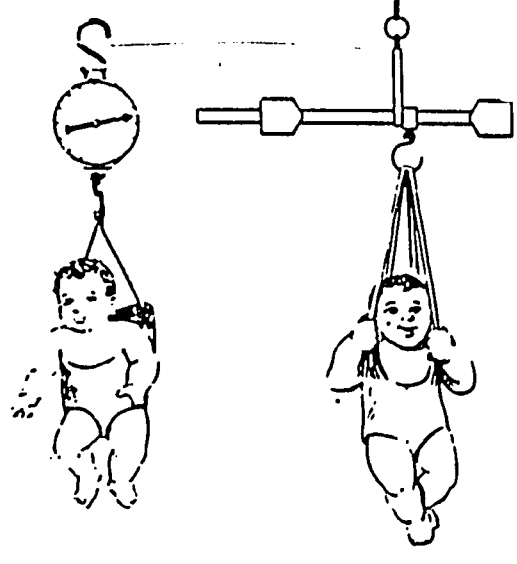
First Weighing

1) Find out the month and year of birth of the child. This may be very difficult information to obtain and require a series of questions to obtain the most reliable information about the child's actual age. Use of events occurring in the past that can be used as a point of reference, i.e., Eid, a marriage or death date near the child's birth can be very useful.

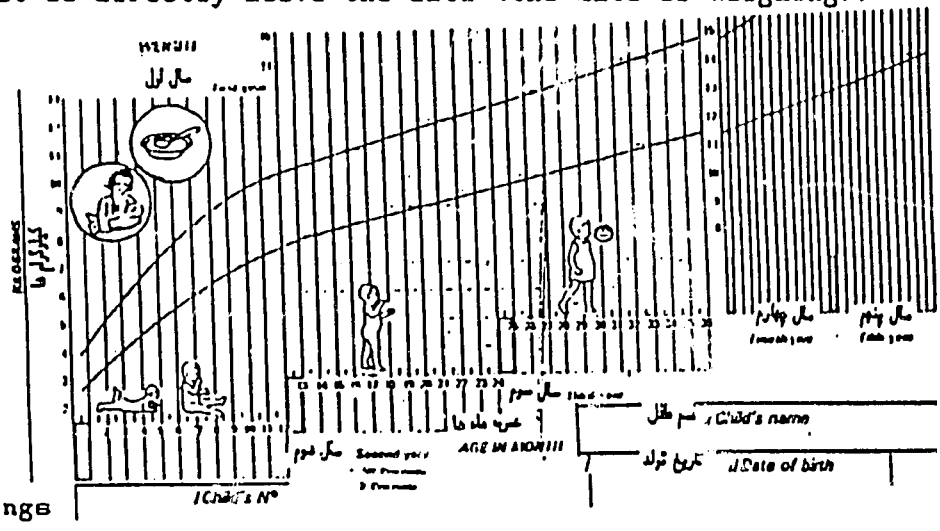
2) Write the month and year of birth on the bottom of weight chart.

3) Note that there are twelve months in each panel. One panel is for a full year. The first box in every year should always have the birth month written in it. After writing the birth month in this first box, write the same month in the first box of the next year.

4) Weigh the child carefully

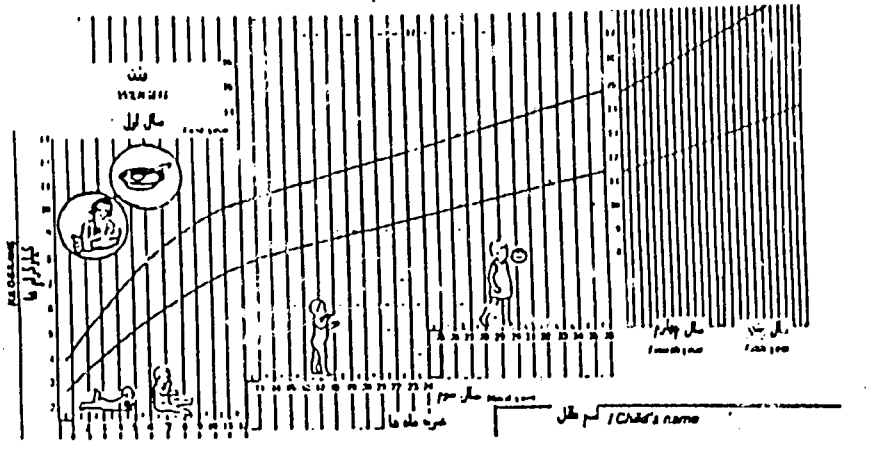


5) Now put a large dot on the graph. The dot must be on the weight line. It must be directly above the date (the date of weighing).



Later Weighings

1) Weigh the child.
2) Find the child's age along the bottom of the graph.



3) Put another dot on the graph, on the child's weight line, and on the appropriate age today.

For example, a child was born in September 1976. He was first weighed in January, and his weight was 6 kg. It is today 10 March, the child has been weighed for the second time, and his weight is 7 kg. Be sure to put the date on the line on which you place today's date. Join together the two dots for the two weighings. If the line is going up the child is growing. If the line is horizontal, or going down, the child is not growing well.

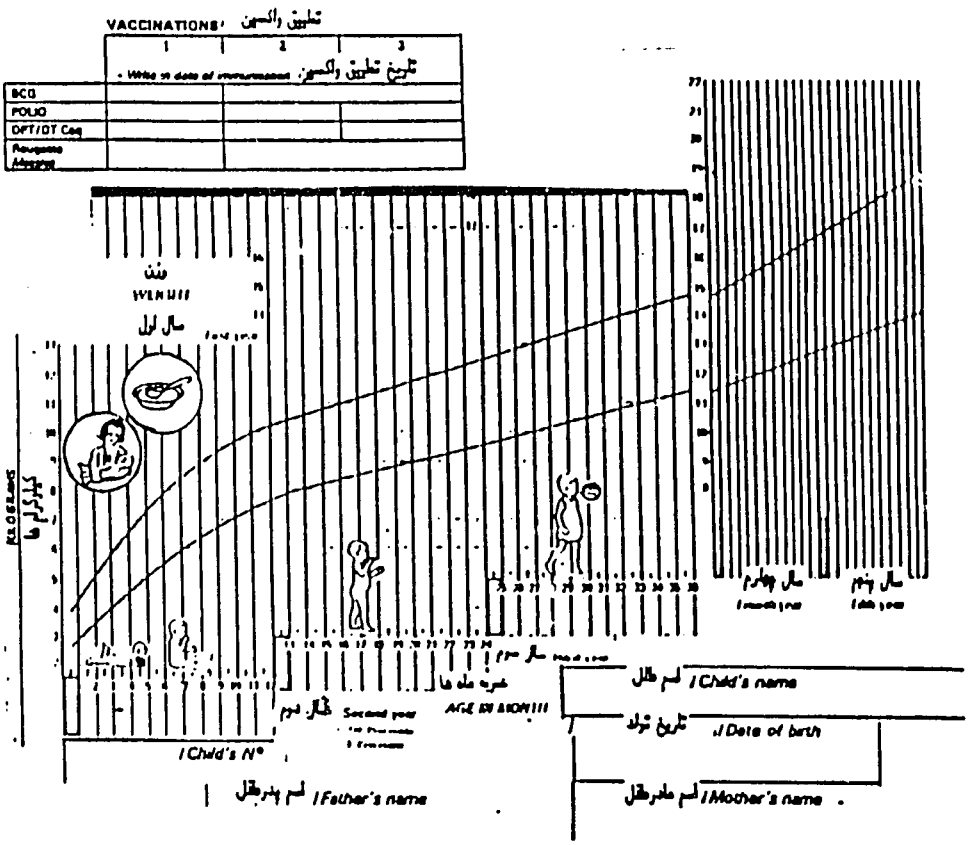
Interpretation

There is much to learn about the interpretation of the weight line. These are introductory instructions.

Look at the Growth Line:
You have weighed the child. You have a dot on the chart. If there are two dots join them together. Look at it carefully. Note two things:

1) Note the change in weight between the two weighings. This is the most important thing to look at. If the weight has increased this is good. We can encourage the mother and tell her the child is growing well. If the weight has stayed the same or gone down, this is not good. We must then try to help the mother so the child gains weight well in the next month.

2) If the child's weight as marked by the dot is below the lower line, encourage the mother to bring him the next month. He may be a small child, or he may be a large child who is malnourished.



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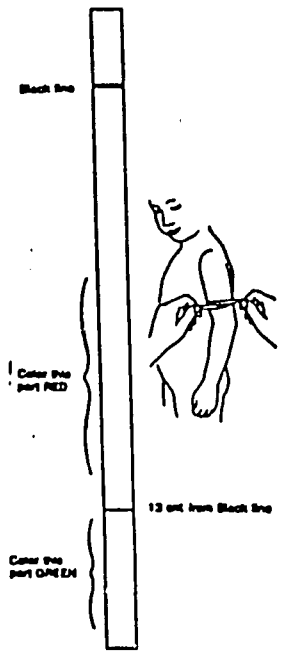
Arm Circumference as a measure of nutritional status

Follow the instructions provided below to measure arm circumference correctly.

1. Measure the left arm of the child, half-way between his shoulder and his elbow. Your strip should just fit around his arm. Don't squeeze it.

2. If the black line touches the red part of the strip, the child is MALNOURISHED.

3. If the black line touches the green part of the strip, the child is WELL NOURISHED.



Upper arm circumference changes very little with age. Between the ages of one and five years, the changes is less than 1 cm. On the other hand, differences of much more than this are seen in malnourished children. Thus, a health worker can rapidly identify the malnourished child during the critical first five years of life. The other advantage is the fact that the age of the child does not need to be as precise.

A CHILD WITH AN ARM CIRCUMFERENCE OF LESS THAN 14 CM BETWEEN THE AGES OF ONE AND FIVE IS MALNOURISHED.

INFANT GROWTH AND DEVELOPMENT

Growth is the increase in size of an individual as a whole and of the various tissues and organs.

Development is the achievement of skills. The rate of this achievement depends on the development and efficiency of the nervous system and the opportunities of learning. Development therefore depends on physical, social, emotional and intellectual factors.

All children go through the same stages of growth and development but each child grows at his or her own rate.

Growth proportions: The head size is normally larger than the chest from birth to 6 months. The head and chest circumference is equal by around one year. Thereafter the chest is larger.

Factors which influence growth include:
1. Genes you inherit from your parents.
2. Nutrition
3. Growth hormones
4. Illness
5. Emotional factors
6. Which sex you are

Weight estimates average
birth - 4 kilograms
one year- 9 kilo
two years-12 kilo
three years - 15 kilo
four years - 17 kilo
five years - 20 kilo
six years - 23 kilo
seven years - 25 kilo

Development guidelines

one month -	Lifts head when lying on stomach. Hands closed but can grasp. Cries, but can be quieted when held.
three months	Keeps back straight when held in sitting position. Can hold object in hand. Smiles, babbles.
six months -	Grasps object when offered. Makes different sounds. Drink from cup when brought to lips. Crawls.

nine months -. Pulls self to standing.
Says "Mama", "Papa".
Responds to name.

twelve months -Walks or walks with help.
Points to desired objects.
Speaks 2-3 words.
Obeys simple commands.

two years - Able to run.
Able to climb stairs
Able to stack blocks.
Points to four body parts, when asked.
Helps dress self.

three years - Knows and can say name.
Jumps.
Can draw circle.
Plays simple games.

four years - Skips on one foot.
Draws a man and woman.
Recognizes colors.
Plays with other children.
Repeats name and age.

five years - Runs quickly.
Skips on both feet.
Washes own face and hands.
Can copy a drawing.
Is protective towards younger children.

Abnormal Growth and Development is a defect in form, structure, or function in an infant which can occur (1) before birth due to genetic problems, maternal infection, trauma to the mother, or maternal malnutrition, (2) as the infant grows, due to infection, malnutrition, emotional factors, or as a delayed result of intrauterine factors.

Four key points for a healthy child:

1. Good nutrition, including breast feeding rather than bottle and the introduction of clean, solid food such as cereals from age 6 months onward.
2. Immunizations, complete and on schedule.
3. Good hygiene. Clean babies fed clean food and water have less infection and better growth.
4. A lot of love.

STUDENT GUIDE

Nutritional Needs

I. ENTRY LEVEL KNOWLEDGE AND SKILLS

Before starting this unit you should be able to:

1. Explain the terms nutrition and malnutrition

2. Define and give examples of the 3 basic food groups.

II. OBJECTIVES

Using the information and experiences provided by the instructor and module text, you will be able to:

1. Identify and differentiate between the phases in life.

2. Describe the nutritional needs of the newborn infant.

3. Describe the nutritional needs of the child from four months until 2-3 years of age.

4. Describe the nutritional needs of the pregnant or lactating woman.

5. Describe the nutritional needs of the older child and adult.

III. EVALUATION

Upon completion of this module you will be rated on your attainment of the above objectives.

Knowledge: Written test based upon module content.

Skills: Motivate mothers to modify feeding habits.

UNIT II.

Nutritional Needs

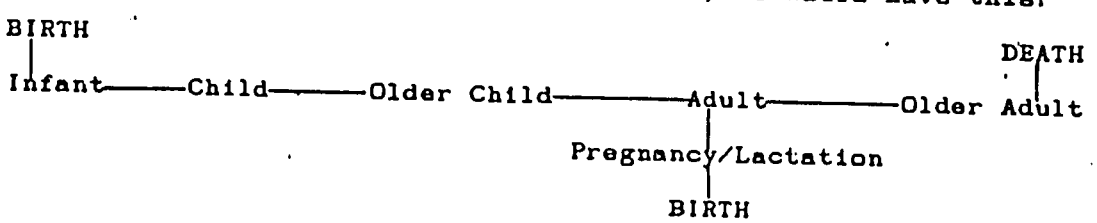
The following concepts are discussed in Unit II.

- Phases of Life
- Nutritional Needs of the Newborn Infant
- Nutritional Needs of the Young Child from Four Months until he is 2-3 years old
- Nutritional Needs of the Older Child and Adult
- Nutritional Needs During Pregnancy and Lactation
- Nutrition During Illness.

What are the different phases in life?

In each person's lifetime, there are times or phases that are common to everyone else's. Every person starts life as an infant - a helpless newborn baby. The next phase that all persons go through is that of a young child. The young child grows rapidly and soon becomes more active, learning to crawl and walk. The next phase is that of the older child. The final phase is adulthood. During adulthood, there is not as much rapid growth occurring. However, activity increases, making the person's energy needs greater. A special time for women is the time of pregnancy or lactation (breast feeding). A new life is born and begins its journey through the different phases of life.

If we put all the phases of life on a line, we would have this:



Why do we distinguish between the different phases of life?

The reason for distinguishing between the different phases of life is that as we go through the different phases, our nutritional needs, or the food we need to eat, will be different depending on what phase in life we are in.

What are the different phases of life we should know?

There are four different stages in life with which we will be concerned. They are as follows:

1. The infant, from birth to four months of age. At this time, the infant is growing very fast and is totally dependent on his mother's breast milk for his food.

2. The young child, between four months and until he is 2 to 3 years of age or when he is finally weaned from the breast. His need for a variety of foods is greater at this time than when he was getting all of his nutrition through his mother's milk. He must, therefore, begin to have other foods as well as breast milk.

3. The older child and the adult. Although the total amount of food that a child over three years old and an adult will eat may vary, the type of food needed by an adult and the older child is very similar.

4. Pregnant and lactating women together make up the fourth group. They have special needs for food beyond the needs of the adult male because they are providing for the growth of a baby. If a woman is healthy and eats a mixed diet, she has a better chance of having a healthy baby.

What do infants under four months of age need to eat?

The most important thing to remember about feeding an infant is that he must be breast fed. His mother's milk is the best food for him. It is the only food he needs during this time.

Keeping in mind that breast feeding is the best way to feed a baby, let us consider some of the reasons why it is good.

Breast milk is exactly what the baby needs. It has the right combination of body-building, energy and protective foods that an infant will need. This one food will meet all the needs of the infant for food.

Breast feeding is more sanitary than other ways of feeding the baby. It is almost impossible to keep a bottle clean enough for a baby. If the baby eats from unclean bottles or cups, he may get very sick. A bottle will frequently cause a baby to get diarrhea and become sick and die. The breast milk is much cleaner and better for the baby.

Breast milk is cheaper than other kinds of milk for feeding the baby. Purchasing canned milks, powdered formulas or other fresh milk is done so only at a very high cost. The mother can

easily provide enough breast milk for her infant at a low cost by increasing how much she eats of certain foods.

It is more convenient to breast feed a child than to prepare formula or bottles for a baby. The milk is ready, at the right temperature whenever the baby wants to eat. Breast milk is made by the body for the baby so it is neither too hot nor too cold.

A special type of early milk is present at birth called colostrum. This first milk is much more yellow in color and some mothers may think that it is soured. This first milk is not sour and it is very important that a mother give this to her baby. It has in it many factors (called antibodies) which will protect the child from illness. This is a very important protective food which makes breast milk the best food for infants. The newborn should be put to the breast in the first hour or two of birth. The baby should not be given ghee or any other food. Putting the baby to the breast early and often is very important: newborns need breastmilk as soon as they are born, and early feeding helps the mother's milk come in and prevents engorgement of the breasts which can lead to mastitis. Breastfeeding immediately after delivery helps the placenta come out and the uterus to contract which reduces postpartum bleeding. Tell fathers, dais, village elders and anyone who will listen the importance of proper feeding of newborns.

Tips for successful breastfeeding and what to do if the mother is sick or dies:

Lesson: HINTS FOR SUCCESSFUL BREAST FEEDING

Some mothers, especially during the first few weeks of breastfeeding, have some difficulties with breastfeeding such as, short/flat nipples, cracked/ sore nipples, lack of breast milk. Some mothers who have difficulties with breastfeeding get discouraged and stop breastfeeding and often turn to using other milk products (non human) such as condensed milk and prepare this under unsanitary conditions which often causes children to get diarrhea, become malnourished and get sick easily.

4 ways to help increase amount of breast milk.

a) drink extra liquids (such as chinese tea).
b) eat nourishing diet (more than normal-supplemental food).
c) get enough rest and relaxation.
d) increase frequency of feeding.

8 ways to prevent breastfeeding problems.

a) put baby to breast as soon as possible.
b) follow good health habits when pregnant.
c) massage nipples to help extend and toughen them.
d) have baby suck from both breasts.
e) feed small feeds frequently.
f) make sure baby's mouth is in correct position.
g) do not clean nipples with soap or alcohol which dries out the skin and causes cracks, but use plain, clean water.

4 ways to treat cracked/sore nipples

a) treat cracked nipples with (food) oil.
b) allow a few drops of milk to dry on nipple after breastfeeding to prevent infection.
c) put infant to each breast about 5 min. every 2-3 hours until nipples heal and then increase feeding time.
d) express milk by hand for a day or two while nipples heal and give milk to baby using a clean cup and spoon.

2 ways to treat short/flat nipples

a) massage nipples daily.
b) make sure infant's mouth is in correct position - gums should be biting dark area of breast around nipple.

2 ways to help re-establish breastfeeding

a) put infant to each breast for about 5 min. at least every 2 or 3 hours to help stimulate milk flow even if there is just a little milk.
b) be confident that breastfeeding can be re-established

Sometimes a mother or a baby may get ill. It is very important to remember the baby must still be fed. Even when babies get, diarrhea, a mother must continue to breast feed the child. Feeding the child will help him to get well again. If the mother gets sick she should continue to breastfeed her infant. If she is given a medication for her illness that will be dangerous to the infant may have to discontinue temporarily and use some safe alternatives described below. She should continue to breast feed if she has mastitis if possible.

Most women can adequately nurse their children. However, there are rare cases, such as when a woman cannot make milk or if a mother dies, that the a family must find an alternative way to feed the infant. Keeping in mind the "breast is best" the family can look for another woman who can nurse the baby (wet nurse). This can be any woman who has delivered a child in the past. Her milk will reestablish itself sufficiently within 2-3 days to feed the

infant. if she places it to her breast to suck. If another woman cannot be found to breast feed the infant, then most families will often try to use a bottle.

It is important to stop this practice, because almost half of babies given bottles will die from diarrhea. It is not possible to keep the bottle clean enough. The child should be fed from a cup with a spoon. Both the cup and spoon must be very clean. They should be boiled in water each time before they are used for the baby.

A baby may be fed from a cup by giving him powdered milk with water and sugar added, or fresh milk with sugar. It is important that the mother not add too much water to the powdered milk because it will thin it out and the baby will not be getting enough milk or food. Skim milk, which is milk with some of the fat content removed, is not a good food for infants unless oil and sugar are added. Fresh milk after it is boiled and cooled and a small amount of sugar is added. A formula for feeding infants may be made according to the directions for fortified milk solution given below. The most valuable thing for a mother to know, however, is that the best food she can give her infant is breast milk.

THREE FORMULAS FOR FORTIFIED MILK SOLUTION (FMS)

1.	fresh whole milk	8 ounces
	sugar	2 rounded teaspoons
	multi-vit drops	as prescribed
2.	powdered non-fat milk	10 parts
	vegetable oil	2 parts
	sugar	1 part
3.	full cream powdered milk	10 parts
	sugar	1 part

The dry mixes can be stored in a sealed tin for later use. Do not add water more than six hours before using. The mix is added to cool boiled water as follows:

1. full strength milk for oral feeding:

water	3 parts	6 ounces
FMS mix	1 part	2 ounces
		8 ounces formula

2. Dilute strength for tube feeding in severe malnutrition:

water	4 parts
FMS mix	1 part

The child needs 150 ml FMS per kg per day.

What to feed the young child from four months until he is weaned?

When a child reaches four months of life, he starts to be more active and needs more food than what he can get through his mother's breast milk. The child needs other foods but still needs breast milk. The young child should not be weaned from the breast until he is 2 to 3 years old if possible.

This process of going from breast food to other foods must be gradually accomplished. The food the child is weaned onto is especially critical. The food must be clean and soft and a mixed diet. If the child is not given a mixed diet, malnutrition will result and the child may become sick and die.

The young child is still growing fast and is now becoming more active. So he has a greater need for food. The foods that are given to the young child must be soft, clean and a mixed diet. In addition to breast milk we recommend that a child in this phase of life receive these other foods.

Safe Weaning Practices:

1. After the age of 4-6 months breastmilk alone is not sufficient food. If no other foods are introduced, the baby will start to become malnourished, and later on weaning will become more dangerous.

2. Recipe for first food (super Porridge -or KITCHRI): The first food given is usually traditional, and is usually based on wheat flour in Afghanistan. This first food should contain flour, ghee, sugar, salt and water. There are many ways to make it. Here is one good way:

Take two handfuls of flour and put it in a pan.
Then add a small amount of water, so that a paste is formed that is not too watery.
Heat it until it starts to bubble.
Then add a small spoon of sugar and a few grains of salt.
Give it to the baby on a spoon while it is still warm and fresh.
Don't keep it and reuse after bacteria have had a chance to grow in it.
Give this once daily for the first week, then twice daily then three times daily

3. After one month, introduce a vegetable that has been cooked fresh with a little ghee added to it. A green leafy vegetable is best, and it can be added to the first food described above by mixing it together, after they have both been cooked. At first mix one part of vegetable to 3 parts of cereal, then after the baby is used to the new food (1 or 2 weeks) add more vegetable, so that the mix is 1 part vegetable to 2 parts cereal.

4. At the age of 6-8 months other foods can be introduced: one new food each week. By the age of one year the baby should still be breastfeeding a lot, but he should also be eating many foods.

Good foods for babies are boiled milk, yogurt, cheese, ghee, eggs, all soft vegetables, mashed beans, clean or cooked fruit, and cooked meat that has been mashed or chewed by the mother. Rice and nan are fine so long as they are not the only foods the baby eats.

Safe Weaning: Points to Remember and Teach

- start "first food" at 4-6 months of age, not older.
- always cook the foods and give them fresh.
- the baby should be taking many different foods by one year of age.
- continue regular breastfeeding until 2 years of age.
- if the baby gets diarrhea, add ORS, but always continue clean food and breastmilk.
- all babies get some diarrhea with weaning. The frequency and severity of diarrhea can only be helped by giving clean foods, not by giving a lot of medicine.

Remember: safe weaning practices will save more lives than all your medicines put together! Teach your people!

After the age of two years, everyone can eat the same food. Many people in Afghanistan are poorly nourished because they are eating only rice, nan and tea. Teach them to plant many crops and to eat a large variety of food. This way they will be well nourished and healthier.

A <u>young child</u> needs to eat six times a day. The child has high needs for food because he is growing fast and becoming active.. In order to have enough foods to meet his needs, the young child must have frequent, small meals.

When teaching mothers, it should be emphasized that the regular family diet can easily be modified to meet the nutritional requirements of the young child, if enough is given to him. Also encourage mothers to buy cheap nutritious foods like roasted grain, peanuts, bananas, etc. which should be given in addition to the basic family diet, rather than buying expensive prestige foods.

To help mothers understand the recommended diet, you should prepare large posters and display them in a location where they can be seen.

The most important things to remember about feeding the child are:

1. Breast feeding should be continued until two to three years of age.
2. Super porridge and mashed fruits and vegetables should be introduced when the baby is four months old.
3. When the child is two to three years old, he should be slowly weaned from the breast while being given other foods which are soft, clean and a mixed diet.
4. Young children must be fed even if they become ill. Only if sick children eat will they be able to recover from an illness.

What foods do older children and adults need to eat ?

Older children and adults have similar needs for food. The amount of food they need to eat may differ, but the types of food are the same.

It is important that adults and older children eat a mixed diet. Neither the child nor the adult is receiving breast milk so they must depend totally on their diet for energy food, body building foods and protective foods. Foods from each of the three groups should be eaten every day. An adult can be healthy with 3 meals a day. However, the child may need as many as 4 smaller meals.

Super porridge, which is good for young children, is also very good for older children and adults. It provides both energy foods as well as body-building foods. With a vegetable added it can meet the three needs of the body for food. This is very good for adults who may have lost many of their teeth and cannot chew hard foods.

Older children and adults should eat when they are ill. Taking away food from a person who is ill will only make him worse. All people should eat when they are ill.

Prenatal Nutrition and Lactation

Good nutrition starts before birth with a healthy well nourished mother who gains 8-12 kg. during her pregnancy. The mother needs to "eat for two". This means that she must eat more, and also a good variety of foods, including more fruits, vegetables, oil and animal products (milk, eggs, meat), not just more rice, nan and tea.

Many babies are born underweight and/or premature (born before 9 months). The risk of dying is higher for babies who are born small especially when they are less than 2.5 kg. The birth weight of a baby is related to the mother's weight gain during pregnancy. Many mothers do not gain enough weight during

pregnancy resulting in delivering small or premature babies. Low birth weight babies have more difficulties than normal birth weight babies such as:

a) Higher risk of dying in the first year.
b) More susceptible to illness.
c) Breathing problems.
d) Feeding problems- poorly developed digestive tract results in inability to digest foods properly.

Tell the village elders that if they want strong sons they must have strong wives, and if they want strong grandsons they must have strong daughters.

Practical objectives to insure good nutrition during pregnancy:

1) For pregnant women to gain between 1-2 kgs per month after the first 3 months of pregnancy.
2) For women to have their weight regularly checked during pregnancy to follow weight gain.
3) The medic should provide the woman (and her family) with instruction regarding the importance of nutrition and the specifics of a good diet.

Many women are anemic and should take ferrous sulfate (iron pills) while they are pregnant and breastfeeding. This is generally the only medicine they need during pregnancy. [See obstetrics chapter on guidelines for supplements for pregnancy]

Why is diet important in <u>disease and illness</u>?

When a child or an adult is malnourished, it is easier for them to get sick. Their illness will be more severe because they are not strong enough to protect themselves from the illness.

When a person is ill, he may not want to eat. The person may have diarrhea or nausea and may not be hungry. When a person is ill, it is important that he eat good food and enough of it even if he is not hungry. Super Porridge is a good food for children and adults while they are ill.

The sick person should be eating a mixed diet. If the sick person does not eat enough of the good foods, his illness will lead to diarrhea. The diarrhea will cause the patient to become malnourished and the patient becomes even more ill. This continues all too often until the patient dies. To stop this from happening, the patient must eat a mixed diet and eat only clean foods.

Making sure that the person eats only clean foods is very important. Since the feeding bottle cannot be kept clean, it is almost a sure death for infants who are bottle fed. Using a cup and spoon which have been boiled to feed a child is a good way to avoid illness. Cooking foods until they are very hot and boiling water are two ways to make sure the food one eats is not dirty. Breastfeeding is an easy way to avoid illness with infants and at the same time provides the best food possible for the infant.

Always Remember:

1. The foods that make people well nourished are different at different ages.
2. The practice of withholding food from the sick, which is often done, is almost always dangerous. Sick people need to eat good food even more than healthy people.

UNIT III

Local Foods

Unit III deals with the following concepts:

1. Locally available foods
2. Types of milk available

What are locally available foods?

Locally available foods are those which people in your community can produce or buy. Foods which are grown in the community are usually better than those which are from far off places and must be shipped to the community. Food that is grown in the community will also be less costly than food which must come from far away places.

How can locally available foods best be used?

Grain cereals locally produced are frequently much better and less costly than grains shipped to your community. If the cereal shipped in is ground into a flour, it is frequently milled. This milling removes the outer part of the grain as well as the kernel which is where all the protective food parts are located. What is left in a milled cereal is usually only the energy food. While this milling is making the cereal less nutritious, it is also making it cost more. The villagers will have to pay more for it and actually get less food value. When a woman grinds cereal into flour for her family with the traditional grinding stone, she does not lose the protective portions of the grain.

Foods may best be used by eating them in combination with others. A body building food should be eaten with grains or other energy foods and a protective food. In making breads or porridge, two different grains should be used rather than just one.

If they are available, animal products such as meats or eggs should be eaten rather than sold for cash. Animal and fish products are excellent sources of body-building foods.

Any fruits or vegetables which are grown in the community should be included in the diet. One should not overlook sources of vegetables. Vegetables are very important to the total diet and tend to be expensive to purchase. Any gardening of vegetables would be a wise use of land and recommended for improving the health of the community.

What are the locally available sources of food?

Each community is different in that it can produce, what people want, and what is available. It is important to know this information about your community. Take the time to consider the items in the following lists and determine if the foods are available in your community.

Protective Foods

papaya, lemon, orange, mango melon, tangerines, pumpkin, dates, spinach leaves, apricots, pumpkin leaves, sweet potato leaves, tomatoes, cauliflower, unmilled maize, carrots, brown rice, whole wheat, other fruits and vegetables.

Body-Building Foods

meat, fish, eggs, poultry, legumes (dried beans, peas, pulse, lentils, peanuts, monkey nut), oil seeds (sesame and sunflower) milk, cheese, lassi.

Energy Foods

Wheat, maize, rice, millet, potatoes, banana, butter and ghee.

Consider the lists of food to determine if some of the foods are more economical than others in the lists.

What types of milk are locally available?

Milk is a source of body-building food, energy food and protective food. It is available in many different forms for people to use. They are not the same and costs may vary widely. Some of the varieties may be present in your community while others may not. The varieties you may encounter include: breast milk, fresh milk, powdered whole milk, evaporated milk, skim and dried skim milk, condensed milk and commercial infant formulas.

Fresh milk, if available, is a good food for young and old. However, it must be kept in clean containers and refrigerated to avoid contamination. When a child is weaned from his mother's breast, fresh milk is a very good food.

Powdered whole milk is fresh milk which has had the water removed and is now in powder form. To use it, water must be added back according to directions. With sugar added powdered whole milk may be used for infant feeding when no breast milk is available.

Evaporated milk is milk from which part of the water has been removed. When added to an equal quantity of water, this milk is the same as whole milk. This is sometimes an expensive source of milk.

Skim milk and dried skim milk are products from which the fat content has been removed. Dried skim milk is skim milk which has

had the water removed, and it is in powder form. Both are a good source of body-building food and protective food that is needed by pregnant women, lactating women and child. This is a good food for young infants only when it is mixed with sugar and oil.

Condensed milk, which usually comes in cans, has had much of the water removed and extra sugar added. This milk is very expensive. It is not suitable food for infants because it has had too much sugar added.

All milk is a source of possible contamination and disease. The use of milk in the diet is advisable only if a safe, clean source of milk is available. All milk except breast milk should be boiled and then cooled before it is given to infants.

Commercial infant formulas such as "Infamil", "Similac" and others are available in Pakistan, but they are generally very expensive. And, they are no better than less costly sources of milk. The money saved can be used to buy more milk or other nutritious local foods.

The most important points to remember concerning milk are:

1. Breast-feeding infants and children up to age 2-3 years is far superior in every way to giving them milk from other sources.

2. When cow or buffalo milk is given to small children, it should be fed with a cup and spoon. Bottle feeding is very dangerous, because it is very difficult to keep bottles and nipples clean enough to avoid contamination with microbes which cause diarrhea and other illnesses in infants and small children.

MALARIA

General Considerations

Malaria is one of the most common infectious diseases in the tropical and subtropical world. It is caused by a Plasmodium parasite which lives in the human blood stream, and is spread between humans by mosquitos in the following life cycle:

1. The female anopheles mosquito bites a person who has malaria, and sucks up blood containing immature Plasmodia parasites.

2. The immature Plasmodia slowly mature into an adult which then can be transmitted when the carrier mosquito bites an uninfected person.

3. As the plasmodia circulates in the new victim's bloodstream, it filtered out by the liver. The adult plasmodia settles into liver cells and reproduces many new parasites until the liver cells rupture, releasing the undeveloped plasmodia into the bloodstream.

4. Throughout the bloodstream, the undeveloped plasmodia get into red blood cells (RBCs), develop to maturity, and reproduce many new parasites until the RBCs rupture. This releases the many new plasmodia to attack more RBCs.

5. This cycle is repeated many times. The person is now an infected carrier of malaria, and when bitten by a female anopheles mosquito, passes on the disease.

There are actually 4 different types of Plasmodia parasites. Each show the life cycle events listed above, but each differs in the number of new parasites reproduced in each cycle. For example, Plasmodium falciparum reproduces billions of offspring parasites in each cycle, causing a malignant malaria which is severe, with a fast progression, and often fatal. In contrast, Plasmodium vivax does not reproduce such a huge number of parasites in each life cycle, so it causes a more chronic malaria. The other , rarer types of Plasmodia - ovale and malariae - also cause a benign malaria.

Epidemiology

There are 3 major factors which determine how much malaria there will be in a community. The first is the type of malaria present. Second is the number of mosquitos. Third, is the number of infected and susceptible persons in the area.

1. There are 2 different types of malaria that we will be concerned with: benign malaria and malignant malaria. You should be able to differentiate one type from the other based on the signs and symptoms and determine which is the more common type in your area.
Malignant malaria is caused by a parasite called Plasmodium falciparum. Because this parasite needs a certain length of time in very warm temperatures (above 21 degrees C) to develop within the mosquito, it is most commonly found in the tropics and during the summer in the subtropics. Malignant malaria is then often seasonal in occurrence and tends to occur in epidemics (in sudden outbreaks of severe cases in all ages).

   Benign malaria is caused by Plasmodium vivax in most cases. However, 2 other rare parasites, Plasmodium ovale and Plasmodium malariae, can also cause benign malaria. In contrast to malignant malaria, benign malaria is a much less severe disease. Parasites causing benign malaria have less specialized survival needs, and thus are more wide spread and occur endemically (in a constant, relatively high number of mild and moderate cases).

2. The number of mosquitos also determines how much malaria can spread in a community. Because mosquitos carry the disease from one person to another, if the number of mosquitos is significantly reduced, the number of malaria cases will also be reduced. Three conditions determine the number of mosquitos in the area:

   a. Temperature and Humidity: It must be warm and humid enough for the mosquitos to live.

   b. Breeding places: Mosquitos need swampy or wet areas to breed.

   c. Mosquito pool and life expectancy: There must be enough mosquitos living long enough so that a certain number survive to incubate and transmit the malaria parasites.

3. The third factor in the spread of malaria through a community is the number of infected and susceptible persons in the area. There must be a certain number of infected people who happen to be bitten by a mosquito, and a certain number of uninfected, susceptible people who will get malaria when they have been bitten by an infected mosquito.

In an area where malaria is endemic, many adults develop immunity, or tolerance: even if bitten by a mosquito carrying Plasmodia, they will not become ill. This immunity can fade away if the person leaves the area for several months; he will be susceptible to a malarial attack when he returns home. Similarly, a baby acquires immunity from its mother before it is born, but this immunity lasts only a few months. Children aged 4 months to 3 years are higher risk for developing malaria. Finally, any visitor who has not lived in an endemic area is likely to get malaria.

Distinctions between Plasmodium vivax and Plasmodium falciparum

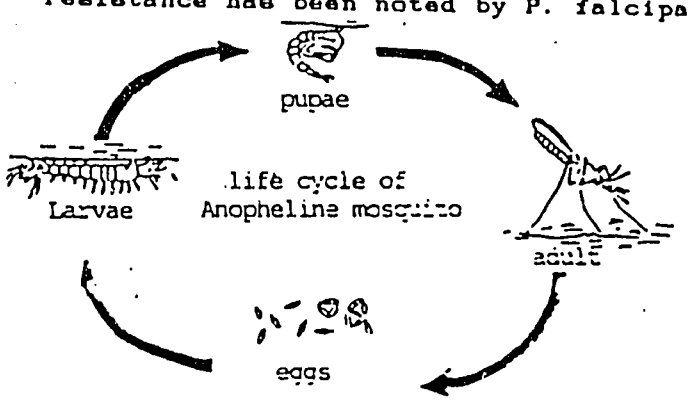
There are several characteristics which distinguish between P. vivax and P. falciparum. While P. falciparum has a short hepatic phase (7 - 28 days), P. vivax has a prolonged phase lasting from 7 days to 1 - 2 years. Hence patients can become symptomatic with malaria, even 1 year after leaving malarious regions.

P. vivax only infects immature RBCs, therefore, it does not usually cause rapid anemia, rather a slow gradual decrease in hemoglobin when the infection is chronic. P. falciparum can involve all RBCs, hence the drop in hemoglobin is usually rapid.

While P. vivax is evenly distributed in the blood, and often in an enlarged spleen, P. falciparum tends to stick in deep tissue organs. This leads to blocking capillary blood flow and damage to lung, kidney, liver, and brain when involved.

Under the microscope, P. vivax has a round gametocyte, while P. falciparum has a banana shaped gametocyte which allows for the correct diagnosis.

Finally while no chloroquine drug resistance has occurred with P. vivax, resistance is spreading in the P. falciparum type. No resistance has been noted by P. falciparum yet in Afghanistan.



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	Plasmodium vivax	Falsiparum
Hepatic life span	7 days to 1 - year	7 - 28 days
RBCs involved	Only immature RBCs are involved (small percentage)	All RBCs can be involved (large percentage)
Body location	Evenly distributed in blood and spleen	Tend to accumulate in deep organs (kidney, lung, liver and brain) causing capillary blood flow obstruction
Microscopic Appearance	Round gametocyte	Banana shaped Gametocyte
Chloroquine resistance	None noted	Occurs in many countries. Not yet in Afghanistan

Clinical picture

Before reading further, be sure you have reviewed the skills of examining: conjunctiva for anemia, the skin for jaundice, and the size of the spleen.

Signs and Symptoms

All 4 types of malaria have a similar, recognizable pattern of signs and symptoms. We will discuss the "classic" symptoms, and indicate any distinguishing features between the different types. You will see that the symptoms correlate directly with the parasite's life cycle within the body.

The first symptoms are general tiredness and loss of appetite, a headache, and an irregular low fever. There is often vomiting, which may be the first symptoms in a child. Although similar to many viral illnesses, these symptoms continue and gradually worsen, instead of resolving, during the next 2 to 3 days.

The fever then gets higher, may "spike" at high temperatures irregularly for a few days, then takes on a regular cycle of typical "malarial paroxysms". First, the patient feels cold and has a hard, shaking chill for 20 to 60 minutes. This is the "cold stage". Toward the end of the chill, the temperature begins to

rise and the patient temporarily feels better. Then, the patient feels very hot, with temperature rising up to 40-42 C for 3 to 8 hours. This is the "hot stage". Nausea, vomiting, and diarrhea often accompany the fever. Finally, the fever "breaks" as the patient sweats profusely. This leaves the patient thirsty and exhausted. This paroxysm occurs every other day in Plasmodia falciparum, vivax and ovale, and every 4th day in Plasmodium malariae. The malarial paroxysm correlates directly with the parasitic life cycle in its human host. The patient has chills (cold stage) just as the red blood cells rupture. The fever (hot stage) starts and rises as the released immature parasites get into other red blood cells and start dividing again. The first paroxysm is the most severe; following cycles become progressively less severe (except in falciparum).

The patient develops anemia because red blood cells are ruptured in each paroxysm. The anemia is seen as paleness in the conjunctiva, lips, and under the tongue. It is especially common in children, who simultaneously become lethargic (disinterested in what goes on around them) and unable to eat or suck

Secondly, both children and adults develop mild jaundice. When the red blood cells rupture in the bloodstream, they release greenish-yellow pigment of destroyed hemoglobin, which shows as yellowish skin. (Note: This is hemolytic jaundice, caused by rupture of blood cells. It can be differentiated from liver-caused jaundice, because hemolytic jaundice is not associated with bile in the urine).

Thirdly, all age groups often have an enlarged, tender spleen. The enlarged spleen may or may not be tender, depending on the state of the disease.

COURSE AND COMPLICATIONS

1. Benign Malaria

In the benign malarias (Plasmodium vivax, ovale, malariae), the paroxysms of chills, fever, and sweating become less severe. The complications are chronicity and/or recurrence.

If untreated or improperly treated, benign malaria will continue to produce mild fever symptoms, but the anemia will become progressively severe. The jaundice also will continue. The enlarged spleen will change from very tender to nontender and hard. These continuing symptoms lead to the chronic, mild disability and lack of well-being which decreases work capacity.

Relapse

Even if it is properly treated, benign malaria can be difficult to cure: relapses are common. The mild, cyclical fever paroxysms can start again even though the person has not been re-exposed to malaria.

2. Malignant Malaria

Plasmodium falciparum is called "malignant malaria" because it progresses so quickly, leading to severe complications and often death unless treated quickly. This type of malaria is different from benign because (1) there are huge numbers of parasites in the bloodstream, and (2) those parasites make the outer surface of the red blood cells sticky, so the cells clump and clog vessels all over the body. The following complications occur:

1) Very High fever: Because of the massive infection, the temperature may rise to 41.5 C. The patient will lose consciousness, have generalized seizures (especially children) and die unless cooled down and immediately treated for the malaria.

2) Cerebral Malaria: Clogged vessels throughout the brain cause a sudden onset (less than 24 hours) of severe headache and confusion. This is greatly aggravated by a profound hypoglycemia. There is twitching of the facial muscles, which progresses to generalized seizures (not brought on by loud noises, in contrast to tetanus seizures). The patient loses consciousness and goes into a coma. Cerebral malaria progresses quickly. If treatment is not started at the earliest sign, the patient will die.

3) Shock: Because so many parasites are present, there is rapid, massive destruction of red blood cells, leading to severe anemia. Often there is also vomiting and diarrhea. The combination of anemia and fluid lost from the gastro-intestinal tract leads to shock. The patient has a fast, weak pulse and low blood pressure. He must immediately be treated for shock and malaria.

MANAGEMENT

Initial Treatment:

Initial treatment is the same irrespective of the specific type of parasite causing the malaria. This treatment is to give oral chloroquine, 150 mg per tablet.

1. Adults: give chloroquine tab 150 mg base in the following schedule:

   a) Immediate dose: 600 mg (4 tablets)
   b) Six hours later: 300 mg (2 tablets)
   c) For 2 more days: 300 mg (2 tablets) per day.

2. Children: give chloroquine in the following schedule for appropriate age. Give 10mg/kg for the first dose and 5mg/kg at 6, 24, and 48 hours. If you are unable to weigh them, try this age related dosing:

Age	Immediate Dose	After 6 hours	2nd to 3rd day
Up to 1 year	1/2 tablet	1/2 tablet	1/4 tab/day
1 to 3 years	1 tablet	3/4 tablet	1/2 tab/day
3 to 6 years	2 tablets	1 tablet	1/2 tab/day

NOTE: If an adult or child is vomiting, the immediate dose could be given by injection in the following doses:

a) Adults - 200 mg IM
b) Children - 5mg/kg IV (children should not be given chloroquine IM because of the danger of shock).

3. Referral and Patient Education:

   a) Chloroquine tastes bitter and it should be given with sugar or honey.
   b) In all cases, have the patient drink plenty of fluids.
   c) Chloroquine is dangerous if an overdose is taken. It should be kept out of reach of children.
   d) If the patient does not improve within 3 to 4 days, go back through the protocol. If the protocol still indicates malaria, contact the health officer for further advice.

Treatment and/or Referral for Complications

1. For high fever (above 41 degrees C), the patient must be cooled, or given paracetamol.
2. Cerebral malaria - the patient should be referred immediately, if it is possible, but before the patient leaves:
   a) Give chloroquine injection at once.

      Adults: 200 mg IM
      Children: 5mg/kg in an IV drip of glucose and water over 1/2 hour
   b) Start an IV of glucose and water and give 20% glucose by "push". If the trip to the hospital will take more than 6 hours, give the family chloroquine tablets (in the 6-hour dose schedule listed above) to be given in 6 hours if the patient is not vomiting.
3. Collapse should be treated as shock (See Surgery Section) with fluid replacement, monitoring vital signs and referral. Also, treat with the same procedure (steps a and b) listed above.

Prevention

Your area may have malaria eradication teams to help either stop an epidemic or try to eradicate endemic malaria. But you must detect the endemic or epidemic problem, and may have to take the first steps in prevention before a team arrives. This subject is covered in more detail in the Community Health Section. See the formulary for Chloroquine dosing for prophylaxis.

As discussed in Epidemiology, malaria is only carried between infected and non-infected humans by the female anopheles mosquito. So, the incidence of malaria in a community depends on the number of infected humans (the human pool of malaria) and the number of female anopheles mosquitos (the mosquito pool). We also, mentioned that malaria can occur endemically or epidemically in a community. Endemic, when there are always quite a few cases of malaria in the community and enough mosquitos survive year-round to keep passing the disease, means a constat large human pool and a small mosquito pool. Also, in an endemic area, there are adults who have become immune or tolerant and get either very mild cases or do not seem to get malaria at all despite many bites by infected mosquitos. In this same endemic community are people who are very susceptible to getting malaria, e.g., children under 5 years, or visitors who were never exposed to malaria before.

In contrast, epidemic malaria, affecting everyone in the community, creates a sudden large human pool of malaria victims. Epidemic malaria, often occurring seasonally (when the temperature is just

right for a huge number of mosquitos to breed and live long enough to transmit this type of malaria), creates a sudden large pool of breeding, surviving mosquitos.

There are 2 basic principles in preventing the spread of malaria, although the actual tactics used may vary with the type of malaria in your community. First, you must decrease the human pool of malaria, and secondly, decrease the mosquito pool of carriers.

PATIENT EDUCATION - DECREASING THE HUMAN POOL OF MALARIA

1. Diagnose and treat malaria promptly, and effectively. If the treatment does not seem to help a fever, and you have repeated the protocol to rule out other causes of fever, you should refer the patient

2. Give prophylactic medication to susceptible people (particularly children under 5 years old) in an endemic area. This decision to give prophylaxis may have to be made with advice from your supervisor or the malaria eradication team. The dosage for children is 5mg/kg given once per week.

3. Educate your patients about the signs of malaria and the need for complete treatment.

4. Elimination of standing water around buildings.

COMMUNITY EDUCATION - DECREASING THE MOSQUITO POOL OF CARRIERS

1. Work with community members to find and drain or fill swampy breeding areas to prevent new mosquitos from hatching.

2. Use residual insecticides (DDT) to kill the remaining mosquito population. Again, you may need the advice or assistance of the malaria eradication team in spreading the insecticide.

3. Teach the community to use mosquito netting and repellents to avoid bites.

4. Elimination of standing water around buildings.

The 3 steps above are most useful in epidemic situations. In an endemic area, very few mosquitos are needed to keep transmitting malaria between the many infected humans. Thus, attempts at decreasing the mosquito pool are ineffective unless you achieve

TUBERCULOSIS

I. General Considerations

Tuberculosis (TB) is one of the most serious diseases in the world, especially in the developing world. It is both common and severe. It is caused by a slow growing bacteria, Mycobacterium tuberculosis. The disease develops (and is cured) slowly over months to years. it is a difficult disease to control because it is relatively difficult to prevent. But with a clear understanding of the disease and an organized approach to its prevention and long-term management, great improvement can be made in controlling it.

Epidemiology:

TB is found world-wide but is far more common in developing countries. Children under 5 years, young adults, and elderly adults are at a greater risk of developing TB. It is rare between the ages of 5 and 14. Anyone whose resistance is lowered due to conditions such as measles, congestive cardiac failure, alcoholism and especially malnutrition is much more likely to develop TB. TB is spread almost exclusively by way of droplet spread from the respiratory tract. It usually requires prolonged repeated contact. Therefore, when a case of TB turns up, the rest of the family and other close contacts should be examined, skin tested and/or X-rayed for TB.

II. Clinical Picture

The discussion of clinical findings will be divided in 3 parts:

1. The Primary Complex
2. Primary TB in Children
3. Post Primary (Pulmonary) TB in adults.

A. <u>The Primary Complex</u>: The primary complex is the usual reaction in a healthy person (child or adult) after his first prolonged contact. The resulting illness is usually relatively mild -- a cough and/or fever for 1 to 3 weeks. The healthy individual will resist the infection started. It can sometimes be seen on X-ray as calcified areas. These calcified areas usually contain TB bacilli for years afterwards.

B. Primary TB in Children

TB may present the same way in children as it does in adults with pulmonary symptoms progressing over weeks to months. However, TB in children, especially younger children, often presents without pulmonary findings. Instead it often presents as a rather non-specific chronic illness. It is therefore, important to be familiar with the pattern of TB in children as well as in adults.

5 of the most common patterns of TB in children are:

1. Weight loss - becoming progressively worse.
2. Lethargy, irritability and reduced appetite.
3. Chronic cough - more than 4 weeks.
4. Pneumonia which does not improve with antibiotics.
5. Chronic fever, more in evening and night sweats.

Somewhat less common patterns are:

6. Continual illness following measles.
7. Painless enlarged lymph nodes (usually cervical).
8. Meningeal signs (stiff neck and positive straight leg test. Note: Any child (or adult) with meningeal signs and fever should be treated initially as acute bacterial meningitis. They should be referred to a hospital.
9. Chronic abdominal pain and/or swelling.

As a general rule, any child who is chronically ill (fever or weight loss or lethargic or coughing) should be examined for TB by skin test and/or sputum exam.

C. Post Primary (pulmonary) TB in Adults

This refers to "reactivation" of TB usually long after the primary contact. It includes reinfections as well as the reactivation of the original infection. In this latter case, the bacteria came from the old calcified lesions in the chest. These lesions breakdown and spread bacteria when the body's resistance is lowered by debilitation from age or illness. Hereafter, we will refer to it as pulmonary TB.

1. Signs and Symptoms of Pulmonary TB

Pulmonary TB may start gradually with a cough and fever. As the disease progresses, other common symptoms are:

a) Continued low grade fever particularly in evening.
b) Persistent productive cough.
c) Vague tiredness.
d) Blood-streaked sputum.
e) Lack of appetite (anorexia).

f) Weight loss (emaciation).
g) Increased pulse rate.
h) Chest pain.
i) Night sweats.

2. Progression of Pulmonary TB in Adults

Secondary pulmonary lesions usually occur in the apical (upper) part of the lungs. As they progress they often destroy lung tissue leading to the development of lung cavities. The fever is usually higher in the afternoon and evening.

Weight loss usually develops during the course of the illness for 2 reasons:

a) The patient is anorexic and eats less
b) The fevers cause more calories to be burned than usual

Clinical diagnosis of Pulmonary TB may be based on the presentation of cough for over one month with or without hemoptysis. The probability of TB being the cause of the cough is increased if fever, night sweats, weakness, weight loss, or chest pain are also present. Clinical diagnosis of Pulmonary TB may be based on suspected pneumonia which does not cure with penicillin.

Without treatment: Most untreated cases of pulmonary TB slowly worsen over months or years, with temporary periods of slight improvement. Some heal slowly without medication. A few progress very rapidly to death. With adequate treatment, 85-95 % of cases can be expected to get well. Adequate treatment usually takes 2 years and sometimes longer. With inadequate treatment some will recover, but others who could have gotten well will develop drug resistant bacteria and needlessly die.

Definitive diagnosis of tuberculosis in adults and children can be rather difficult. The procedure followed in making the diagnosis will depend upon the availability of laboratory facilities.

C. Complications of Pulmonary TB in Adults and Children

Hemorrhage: Severe hemorrhage causing massive hemoptysis due to erosion of a large blood vessel can be fatal. Provide emergency care and refer as soon as possible.

Management of patients with active Pulmonary TB

A. Patient and Family Education

Gaining the cooperation of the patient and his family is the first step in successful management of TB. Take time to explain TB and its treatment to them. Emphasize that:

The treatment must be LONG TERM AND REGULAR.

Family members and other close contacts will need immediate checking as well as extended observation.

Alert patients to the signs of drug reactions. Instruct them to stop drugs if any reactions are noted and to see you immediately. Advise the patient that it is extremely important that he come in each month for medication. The control of TB is a long-term process.

B. Drug Regimen

NOTE: NEVER GIVE ONLY ONE ANTI-TUBERCULOSIS DRUG AT A TIME FOR ACTIVE TB. THIS CAN CAUSE DRUG RESISTANCE!

1. Drug regimen for adults with active pulmonary TB:

   a) INH 300 mg daily
   b) Thiacetazone 150 mg daily
      Note: INH is sometimes combined with Thiacetazone.
   c) Streptomycin 1 gm daily for 2 to 3 months. This is usually given in the hospital.
   d) All supplies given to outpatients should be recorded and the date on which supply should finish should be recorded.

2. Drug regimen for children with active TB: Use the same schedule as for adults, but give the doses below:

   a) Give INH 10 mg/kg/day (maximum 150 mg)
   b) Give Thiacetazone 3 mg/kg/day (maximum 150 mg)
   c) Give streptomycin 1/2 gm

   For example: A 12.5 kg child would receive:
   150 mg INH daily
   37.5 mg Thiacetazone daily (or PAS 3.125 gm)
   250 mg streptomycin daily

C. Additional management considerations:

1. Encourage a good diet (See Nutrition Section) with recommendations for inclusion of additional foods for energy, as fever increases the need for these foods.

2. Before beginning drug therapy, check for anemia. If patient is anemic, give ferrous sulfate for 3 months as needed. It should be taken with the evening medication -- not with INH.

3. Give weekly malarial prophylaxis in malarial areas (See Malaria Section).

D. Complications of therapy

1. Drug reactions - Stop drugs and refer immediately to hospital if any of the following reactions occur:

   a) INH can cause a peripheral neuritis with weakness and numbness of the legs, and (rarely) seizures and jaundice from chemical damage to the liver.
   b) Thiacetazone can cause a generalized skin rash or anemia. (If anemia develops after drug therapy has begun, do not treat with ferrous sulfate -- refer immediately as a drug reaction.)
   c) Streptomycin can cause damage to the 8th Cranial Nerve, resulting in dizziness (or more rarely, permanent hearing loss).

2. Drug Resistance - The resistant tuberculosis bacteria can be a very serious complication. Return or persistence of symptoms, especially progressive weight loss, is a sign that such resistance has developed. Such patients should have sputum re-examined 3 times. Further treatment will require expensive second-line drugs used in combination, such as Ethambutol and Rifampin. Refer such patients to the hospital for referral to a TB center.

E. Extended Management

Successful treatment of TB depends upon continuous correct treatment for 2 years and monthly checking of the patient to be certain the TB is controlled. Maintain a record of chronic tuberculosis care. For each follow up visit, obtain and record the following information:

1. Results of the A.F.B. test of sputum (if medic has laboratory facilities to do the test).

2. Monthly weights - The patient should gain weight every month for the first 4 to 8 months and then hold the weight he had gained. If an adult TB patient loses more than 5 kg, refer him to the hospital.

3. The degree of cough - each month the cough should gradually improve. Refer to the hospital if sputum is found to be positive.

4. The monthly medication given.

5. Complaints of any drug reactions.

Management of Exposed Family

1. Skin test and examine all close contacts of patient with active TB.

2. Using the A.F.B. test of sputum, obtain a definitive diagnosis of any adults or children with symptoms of TB. If the test is positive and the patient is not seriously debilitated, start drug therapy.

   If the test is positive and the patient is seriously debilitated, refer immediately to the hospital.

   If the medic does not have facilities to do A.F.B. sputum test for TB, refer any patient with signs of TB to the hospital for definitive diagnosis.

3. If adults have a positive skin test but no symptoms, observe them periodically but do not treat them.

4. Give BCG vaccine to all children with a negative skin test who have no symptoms.

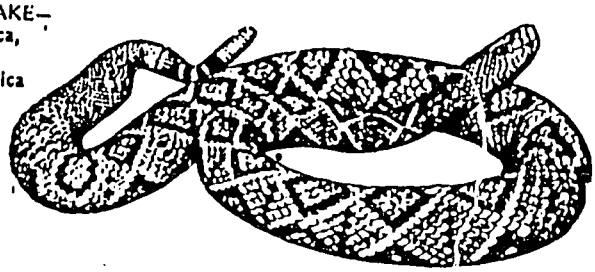
5. For children under 10 years old with a positive skin test but no clinical symptoms, give prophylactic INH 10 mg/kg (maximum 300 mg) daily for 1 year, and follow the child's weight and state of health in child care clinic

Prevention of tuberculosis

This is accomplished in 2 ways: - bringing all active cases under treatment to stop the spread of bacteria, and vaccinating with BCG.

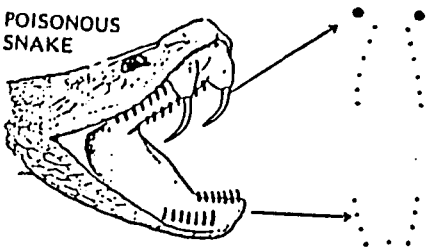
SNAKEBITE

RATTLESNAKE—
North America,
Mexico, and
Central America



When someone has been bitten by a snake, try to find out if the snake w poisonous or harmless. Their bite marks are different:

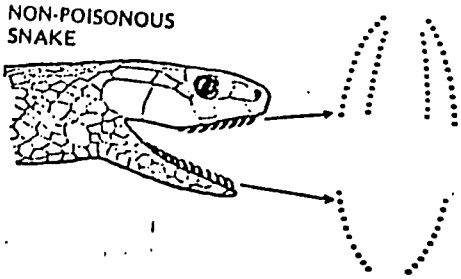
POISONOUS SNAKE



fang marks

The bite of a poisonous snake leaves marks of the 2 fangs (and at rare times, other little marks made by the teeth).

NON-POISONOUS SNAKE



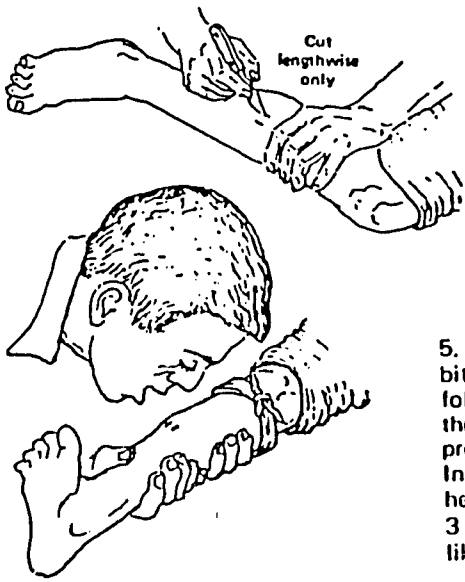
The bite of a snake that is not poisonous leaves only 2 rows of teeth marks, but no fang marks.

People often believe that certain harmless snakes are poisonous. Try to find out which of the snakes in your area are truly poisonous and which are not. Contrary to popular opinion, boa constrictors and pythons are not poisonous. Please do not kill non-poisonous snakes, because they do no harm. On the contrary, they kill mice and other pests that do lots of damage. Some even kill poisonous snakes.

Treatment for poisonous snakebite:

1. **Stay quiet; do not move the part that has been bitten.** The more it is moved, the more rapidly the poison will spread through the body. A person who has been bitten on the foot should not walk, not even one step if it can be avoided. Carry him on a stretcher.

2. Tie a cloth around the limb, just above the bite. Do not tie it very tight, and loosen it for a moment every half hour.



3. With a very clean knife (sterilized in a flame) make a cut into each fang mark: about 1 cm. long and ½ cm. deep.

4. Then suck (and spit out) the poison—for a quarter hour.

Note: If more than a half hour has passed since the bite, do not cut or suck the bite. By then it may do more harm than good.

5. If you can get the right kind of snakebite antivenin, inject it, being careful to follow the instructions that come with the medicine. Take all precautions to prevent ALLERGIC SHOCK (see p. 70). In order for the antivenin to be of much help, it should be injected not more than 3 hours after the bite. (For some snakes, like cobras, it must be given very quickly.)

Note: Different parts of the world have different kinds of poisonous snakes—which require different antitoxins (antivenins). Find out what antitoxins are available in your area. **Be prepared!**

Have snakebite antitoxin ready and study how to use it ahead of time—before someone is bitten!

6. If you can get ice, wrap pieces in thick cloth and pack these around the limb that was bitten.

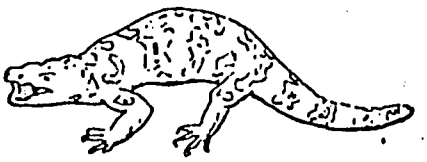
7. If signs of infection develop, use penicillin.

Poisonous snakebite is dangerous. Send for medical help--but always do the things explained above **at once.**

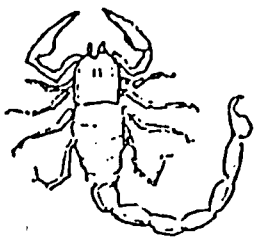
Most folk remedies for snakebite do little if any good (see p. 3). Never drink alcohol after a snakebite. It makes things worse!

BITE OF THE BEADED LIZARD (GILA MONSTER)

The bite of the beaded lizard is treated just like a poisonous snakebite, except that there are no good antivenins for it. The bite can be very dangerous.



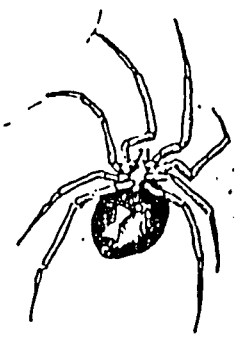
SCORPION STING



Some scorpions are far more poisonous than others. To adults, scorpion stings are rarely dangerous. Take aspirin and if possible put ice on the sting. (Emetine injected around the sting greatly reduces pain.) For the numbness and pain that sometimes last weeks or months, hot compresses may be helpful (see p. 193).

To children under 5 years old, scorpion stings can be dangerous, especially if the sting is on the head or body. In some countries scorpion antitoxin is available. (In Latin America it is called *Antialacrán*, p. 372). To do much good it must be injected within 2 hours after the child has been stung. Give aspirin or acetaminophen for the pain. If the child stops breathing, use mouth-to-mouth breathing (see p. 80). If the child who was stung is very young or has been stung on the main part of the body, or if you know the scorpion was of a deadly type—seek medical help fast.

BLACK WIDOW AND OTHER SPIDER BITES



The majority of spider bites, including that of the tarantula, are painful but not dangerous. The bite of a few kinds of spiders—such as the 'black widow' and related species—can make an adult quite ill. They can be dangerous for a small child. A black widow bite often causes extreme pain in the stomach muscles. (Sometimes this is confused with appendicitis!)

Give aspirin and look for medical help. The most useful medicines are not found in village stores. (Injection of 10% calcium gluconate, 10 ml., injected intravenously very slowly over a 10-minute period, helps to reduce the muscular spasms. Also diazepam, p. 374, may be helpful. If signs of shock develop, treat for allergic shock, p. 70. Injections of cortisone may be needed in children.)

BASICS ON IMMUNITY

General Points

A microbe is a foreign element which attacks the body. It is either a virus or a bacteria. Microbes harm the body directly or by making a poison to harm the body. The poison is called toxin.

When a microbe enters the body it starts a system of defense called the immune system. This system will send cells which:

- identify the microbe
- make antibodies which are proteins to attack microbes.

The Antibodies stick to the microbe and kill it; or stick to the toxins and stop them from being harmful. Then the antibodies are called antitoxins (for example, tetanus antitoxin).

For each microbe there is a specific antibody. For example, the measles antibodies destroy only the measles virus and are not efficient against the polio virus or another microbe.

When someone has antibodies which allow him to struggle against a disease, he is said to be immune against that disease or that he has an immunity against that disease.

II Immunity and Immunization

A. Immunity may be defined as the ability of a person to resist the invasion of disease germs. Most persons are born with a high level of immunity which is derived from their mothers; but this immunity is lost within a few months after birth. The immunity which adults possess is usually acquired after birth in one of the following ways:

1. Natural immunity. A person may acquire immunity to certain diseases by becoming infected with the germs which cause the diseases. The infection may cause a typical case, or it may be so mild that the disease is not recognized. In either instance the body may build up enough resistance to protect the person from contracting the disease a second time. This protection, however, develops only with certain infections such as measles, mumps, diphtheria and chickenpox. There are some diseases against which the body is unable to produce an effective or lasting immunity. A person may. therefore contract them many times. Examples are gonorrhea and the common cold.

2. Artificial immunity. In the case of some infections which result in naturally acquired immunity, it is possible to stimulate this immunity by injecting a vaccine (weakened or killed organisms or their products) into the person's body. This process is called vaccination or immunization. Usually, in order to provide a protecting level of immunity, it is necessary to give several doses of the vaccine at successive intervals of a few weeks or a few months. This is called initial series. Thereafter, because the immunity is gradually lost, it is necessary to give "booster" doses at periodic intervals in order to restore an adequate level of resistance. At the present time effective artificial immunizations are available for a limited number of diseases: smallpox, typhoid, tetanus, tuberculosis, diphtheria, cholera, pertussis, yellow fever, measles, poliomyelitis and several others. Artificial immunization against a specific disease, however, does not provide absolute protection against the disease. Consequently, a person must not become lax in the practice of protective measures such as personal hygiene and sanitation because he has been immunized.

B. Immunization Program and Record.

1. After the initial immunization series, booster doses are given from time to time to insure the maintenance of a protective degree of immunity. Special immunizations also may be given to personnel, depending upon the circumstances.

The customary body site for immunization injections is the outer surface of the upper arm. It is not unusual for the surrounding area to become red, swollen and painful.

Be careful: This phenomena doesn't occur for all diseases.

For example: The protection against T.B. is not transmitted from the mother to the infant.

This immunity is natural because the microbe responsible for the making of antibodies (in the mother's body) lives in nature. Then antibodies travel from the mother's body to the body of [illegible]tus, naturally.

This immunity is passive because the infant doesn't make antibodies but receives them from his mother.

The mother may have antibodies because of infection in the past or because of vaccination.

The baby receives antibodies from the mother through the placenta.

The mother's antibodies are gone from the baby by 12 months of age.

D. Passive Artificial Immunity

In passive artificial immunity, antibodies from another person or animal are injected into a child or an adult.

There are 2 ways to collect the antibodies which will be injected:

1. The antibodies are removed from the blood of a person who has many antibodies (either due to the disease, or due to the immunization). These antibodies are purified, put in vials and injected into the blood of a person who needs to be protected.

   These antibodies (from human origin) are called: antibodies or Gamma globulin.

2. The antibodies are removed from the blood of an animal which has been given the disease.

   e.g. a horse is inoculated with tetanus. The horse makes antibodies (active artificial immunity) which are removed from its blood, purified, put in vials, and injected to the person to be protected.

3. How can the vaccine protect the body against the natural microbe?

a. If the natural microbe, which has the same shape as the microbe of the vaccine, enters the body, he antibodies already made because of the vaccine are going to surround it immediately and kill it. The antibodies don't know the difference between these 2 microbes (natural microbe and the artificial microbe of the vaccine) because their shape is the same.

1. the microbe is surrounded by antibodies.
2. The microbe is destroyed in a few hours.

This phenomena will occur each time the natural microbe enters the body, as long as the antibodies are present in the person's body.

-This immunity is artificial, because the weakened microbe of the vaccine doesn't exist in nature, but has been made by man.

-This immunity is active because the person makes his own antibodies.

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C. Passive Natural Immunity

During pregnancy the mother gives to her child (fetus=child not yet born), the antibodies which will protect him for a while after birth.

1. The mother has in her blood a certain amount of antibodies she made either by immunization or because she had the disease.

2. After the 6th month of pregnancy, some of these antibodies can travel through the placenta and arrive in the blood of the fetus where they can remain after birth.

3. These antibodies stay in the infant's blood for a few months. As long as they stay in his blood, the infant is protected.

e.g. if the mother has had measles during her childhood or if she has been immunized against measles during her childhood she will give to her infant antibodies which provide good protection until the age of 6 months.

The duration of the protection provided by antibodies varies according to each disease.

For example: The protection against polio lasts 3 months.
The protection against measles lasts an average of 6 months.

B. Active Artificial Immunity (vaccination)

A microbe which has the same shape as the natural microbe but has lost its ability to cause disease, is injected into the body.

The defense cells cannot tell the difference between the natural microbe and the harmless artificial one, because both have the same shape.

The antibodies made against the artificial microbe are effective against the natural harmful microbe.

This is the principle of artificial immunization.

A vaccine is a liquid containing the harmless artificial microbe.

1. The Making of Vaccine

a. Vaccines are made in special factory-laboratories. their manufacture is rather complex but can be summarized as follows:

b. Harmful microbes are grown in a large amount then they are treated (by heat or chemicals) in order to remove their ability to cause disease.

c. The new artificial microbe has the same external shape as the natural microbe, but it has been either killed or weakened. This new microbe doesn't exist in nature, it is artificial.

d. This microbe is put in a sterile vial, in a certain measured amount and is either mixed with a solvent (liquid vaccine)or manufactured in powder (vaccine Freeze dried). This is a vial of vaccine.

2. The Mechanism of Action of a Vaccine

a. The vaccine is injected into a person's body with a syringe and a needle.

b. he defense cells locate and identify it (according to its shape).

c. The defense cells make specific antibodies against the artificial microbe of the vaccine.

These antibodies stay in the person's blood for several years or for the person's entire life.

3. All immunizations are recorded on the individual's immunization record which becomes a part of his permanent health record.

Different Kinds of Immunity

There are different kinds of immunity, according to the different ways the antibodies can be gained:

- Active Natural Immunity
- Active Artificial Immunity
- Passive Natural Immunity
- Passive Artificial Immunity

A. Active Natural Immunity

When a microbe enters someone's body for the first time:

1. the microbe enters the body: through food, water, air, skin, injury, etc.
2. It is located by the special defense cells of the body and identified.
3. The defense cells make specific antibodies against this microbe.
4. The microbe is surrounded by these antibodies.
5. The microbe is destroyed (or immobilized), the antibodies stay in the blood for a long time.

When it occurs for the first time, this phenomena is completed in an average of 10 days. During this time, the microbe has time enough to multiply and to infect the body, therefore to be harmful: the person is sick. The immune system leads to recovery.

When a microbe enters someone's body for the second time:

1. There is already a large amount of antibodies in the blood of the person. They immediately recognize the microbe.
2. The microbe is destroyed.

This phenomena lasts only a few hours: the person is not sick, because he is said to be immune against that disease (but not against the other diseases).

This immunity is Natural, because the microbe is the one which lives in nature.

This immunity is active, because the person makes his own antibodies.

The immunity is passive because the person receiving the antibodies does not make them himself.
The immunity is artificial because the antibodies are given in an artificial way by injection.

Because the antibodies are collected in serum this immunity is called seroprophylaxis.

A person makes antibodies either because of infection (I) or vaccination (V). The antibodies are collected (C) for injection into another person.

A horse makes antibodies after vaccination. These antibodies are collected for injection into a human being.

SUMMARY TABLE

immunity	natural	artificial
active	disease	vaccines
passive	mother-infant	seroprophylaxis

The difference between active and passive immunity is that the active immunity requires 7-10 days to be effective but once it is, it will last many years or the whole life.

The passive artificial immunity is effective immediately but it will last only a few days (seroprophylaxis).

The passive natural immunity is given to the fetus after the 6th month of pregnancy and will last different amounts of time according to each disease.

TARGET DISEASES OF THE E.P.I. (Expanded Program on Immunization)

Introduction

Every year in the world, more than 3.5 million children die or suffer from mental or physical handicap, due to 6 diseases:

- measles
- pertussis (whooping cough)
- tetanus
- poliomyelitis
- diphtheria
- Tuberculosis (T.B.)

These disease represent the targets we have to hit if we want to reduce the under-5 mortality (mortality of the children under 5 years old). So we will call them the "target diseases".

Therefore, before studying vaccinations which are the best way to reduce the under-5 mortality, it will be important for you to review these childhood diseases in the Pediatric Section.

At this time in Afghanistan, all immunizations are being given by Special Vaccinator Teams. However, it is important for the medic to be very knowledgeable about immunizations to be able to encourage the people in his community to become vaccinated, and also to care for any side effects.

TARGET POPULATION

WHO NEEDS TO BE VACCINATED?

You should vaccinate the child:

- before he is exposed to the target diseases as soon as possible during the first year of life.
- after he has lost the protection (immunity) given by the mother at about 6 months, (If you vaccinate the child who still has immunity given by the maternal antibodies, these antibodies can attack the vaccine and make it useless).

the adult:

The only vaccine useful for adults is Tetanus Vaccine.

THE TARGET POPULATION

The target population is the part of the population (according to age and to sex) which is mostly attacked by the disease. It is also the part of the population (by age, and general health conditions) among whom the vaccine is the most efficient.

Measles is frequent and dangerous, especially between 6 months and 5 years old. Measles Vaccine is efficient at any age after 9 months (before that the maternal antibodies are still present). The target population for the Measles Vaccine will be children from 9 months to 5 years old. (During an outbreak of measles you are allowed to start immunizing infants after 6 months of age.)

Neonatal Tetanus attacks the newborns before the age the vaccine against tetanus can be given. During pregnancy if the mother makes antibodies, these antibodies will get through the placenta and arrive in the fetal blood.

The target population for the prevention of neonatal tetanus will be:

- pregnant women
- women of child bearing age

The vaccine against tetanus is not effective if it is given to the baby at birth.

THE TOTAL (INCLUSIVE) TARGET POPULATION

This inclusive target population is the population (women and children) which is going to be vaccinated with the EPI Vaccine.

Children:

from 0 to 5 years.

Women:

-any pregnant women
-any women of child bearing age.

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THE VACCINE

BASICS

1. List of existing vaccines currently used in Afghanistan.

the EPI Vaccine (Expanded Program on immunization)
- . Measles (Rouvax)
- . Tetanus
- . Pertussis
- . Diphtheria
- . Polio
- . T.B (B.C.G.)

the vaccines which could be useful in Afghanistan but which don't belong to E.P.I.
- . Typhoid (T.A.B.)
- . Rabies
- . Cholera (but controversial in its efficiency)
- . Meningitis

2. Vaccine classification according to their manufacture

Live attenuated vaccines

They are more fragile but more efficient than the killed vaccines. More of them are made with virus, excepts BCG which is made from bacteria.
- measles (Rouvax)
- oral polio vaccine (OPV) (SABIN)
- smallpox (not used any longer because the disease is said to be eradicated)
- T.B. (B.C.G.)

Killed Vaccines

They are more resistant but less efficient than the live vaccines

* Killed Viral Vaccines
  - killed polio (SALK) (injectable polio vaccine = IPV)
  - Hepatitis "B"

*Killed Bacterial Vaccines
  - pertussis
  - typhoid
  - diphtheria
  - meningitis
  - tetanus
  - cholera

The vaccines against Tetanus and Diphtheria are antitoxins. To make the vaccine the manufacturer don't use the bacteria, but uses the poison produced by the bacteria. This poison is inactivated and then used to make the vaccine

3. Vaccine classification according to external appearance

You can find some vaccines as liquids and some others as powder (the vials of powder should come with vials of a liquid for dilution called solvents, with these 2 vials you can reconstitute your vaccine).

Liquid Vaccines
  - tetanus
  - pertussis
  - diphtheria
  - oral polio vaccine (SABIN)
  - killed (injectable) polio vaccine (SALK)

Freeze-dried Vaccines (Powder)
  - Measles
  - BCG

4. Vaccines which can stand freezing

You need to know which vaccines can be frozen if you want to preserve vaccines for a long time. In Afghanistan the very cold weather can freeze several vaccines.

Vaccines which can be frozen
  - vaccines presented as powder (live):- Measles
    - BCG
  - oral polio vaccine (OPV) SABIN.

Vaccines which cannot be frozen

All the vaccines which present as liquids except OPV
- Tetanus
- Diphtheria
- Killed polio vaccine (SALK)
- Pertussis

Vaccine classification according to heat resistance

The vaccines against diphtheria and tetanus can stand a 37°C temperature during several months.

On the other hand, the vaccine against measles cannot resist more than 1 hour at room temperature after reconstitution (that means mixing the powder with the solvent).

The vaccines the least damaged by heat are the ones which cannot stand freezing.

Vaccine classification according to the number of doses

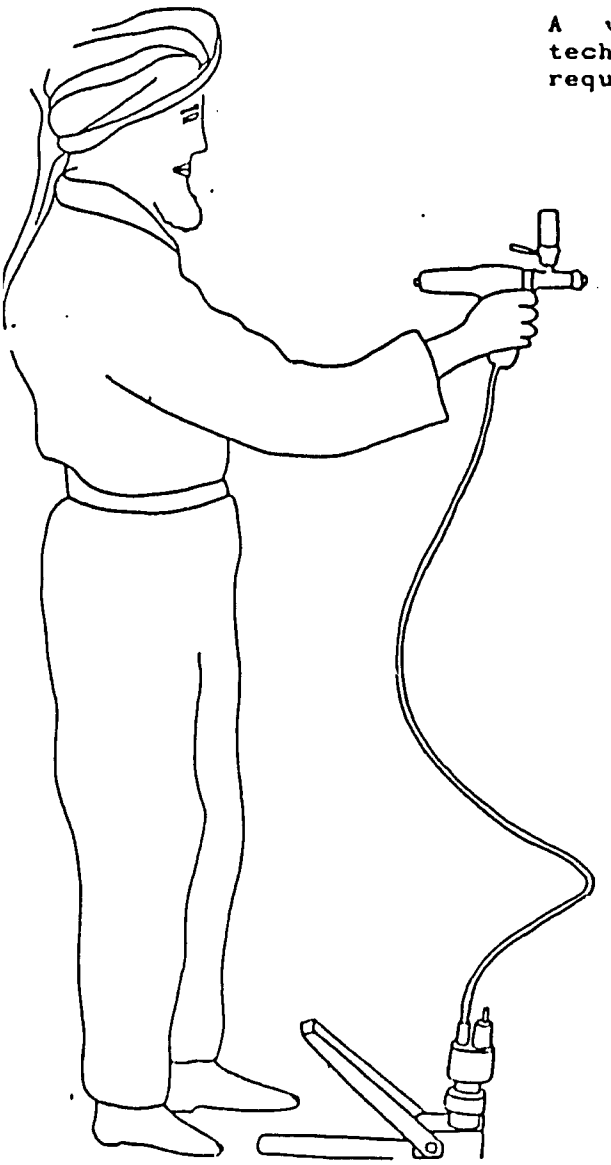
The same vaccine may exist under different packaging according to the amount of doses per vial.
- The one-dose vials are not very useful in Afghanistan
- The 50-dose vials are rarely useful because villages are small.
- The 10 or 20-dose vials are most used in Afghan villages.

Vaccine Classification according to the method of administration

Generally there are different ways to administer a substance to someone.
- by mouth = per os (P.O)
- injecting in the Veins = intravenous (I.V): A vaccine should never be given I.V. It is too dangerous.
- injecting under the skin = subcutaneous (S.C): It is the most frequent way to administrate a vaccine.
- injecting in the skin = Intra Dermal (I.D): e.g BCG
- injecting in the muscle = Intra Muscular (I.M): this way is equivalent to the subcutaneous way.

There is another way to give immunizations: with a gun injector called IMOJET. But this gun is very expensive and only used in specific circumstances such as epidemics or mass vaccination campaigns.

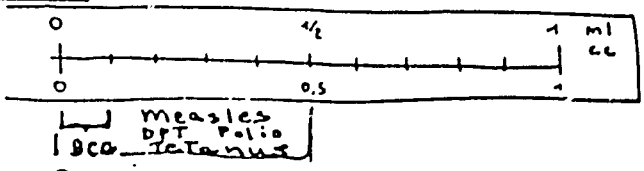
A very good knowledge of the technology of this machine is required to be able to use it.



IMOJET

8. Doses of vaccine to be administered

Usually it is 0.5 cc = 1/2 cc. or 0.5 ml = 1/2 ml.
But for B.C.G. it is: 0.1 ml or 0.05ml.



9. Vaccine Associations

It is possible to combine 2 or more vaccines.

*Combined associations
These vaccines are combined/associated in the same vial or in the same syringe
- D.T. (Diphtheria - Tetanus)
- D.P.T. (Diphtheria - Pertussis - Tetanus)
- D.P.T.P. (Diphtheria - Pertussis - Tetanus - Polio killed)

If you are short of solvent you can use measles vaccine (liquid) as a solvent for DPTP but you will have more side effects than usua

*Simultaneous associations
Sometimes 2 vaccines, or more, can be injected at the same time, but not in the same syringe, nor in the same part of the body. e.g. BCG + Measles + DPTP

Anyway, you shouldn't give more than 6 vaccines on the same day.

Vaccine combinations are very useful in Afghanistan where the circumstances (weather, relief, terrain, war) make it difficult for the vaccinator to come back frequently at the same place to administer vaccine. But the side-effects are more severe with vaccines combinations.

10. Starting doses and boosters

A vaccine needs to be administered at a certain dose to be efficient.
- for some vaccines, the whole dose can be given by a single injection
- for some others, it is necessary to divide this dose in different injections spaced at certain times.

If you give the whole dose of the vaccine at once, the side effects would be too severe and dangerous. Giving one or more other injections, 1 or 6 months after the first one helps to make a larger amount of antibodies.

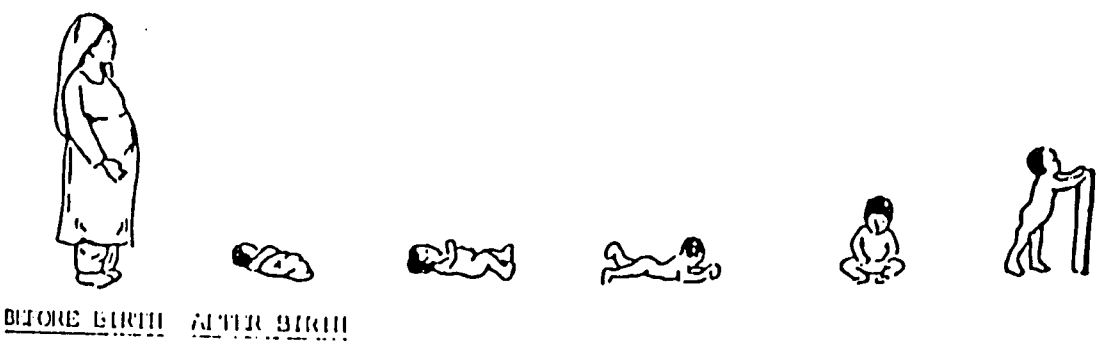
Once the starting dose is given (by one or more injections) it is sometimes necessary to strengthen the immunity, by giving a new injection 1 year or 5 years later. It is what we call a "BOOSTER". Vaccine schedules change as new vaccines are developed. The schedule listed below is general information and always subject to change.

* Vaccine against measles:
  - Single dose
  - No booster
* B.C.G.
  - Single dose
  - Eventually booster 5 to 10 years later.
* Vaccine against tetanus
  - 2 primary doses given at least one month apart
  - No booster except for pregnant women (one booster during the next pregnancy until a maximum of 5 injections)
* D.P.T. Polio (Tetracoq)
  - 2 primary doses given 2 to 6 months apart
  - No booster
* D.P.T. POPV
  - at least 3 primary doses given at least one month apart
  - Booster after one year

In Afghanistan it is easier to use vaccines given as a single dose, or vaccines which need the smaller number of doses, for the primary injections when immunization teams have difficulty getting to communities easily for more frequent doses.

It is much more difficult to use the vaccines which need 3 primary doses or a booster because in these cases you need to go to the same place 3 times to give these 3 shots.

The efficiency of an uncompleted vaccination is not zero but is much weaker than the efficiency of a completed vaccination.



THE VACCINES

PRESENTATION, PRESERVATION, ADMINISTRATION, SIDE-EFFECTS

1. B.C.G.

Presentation:

The BCG vaccine doesn't protect against T.B. but decreases significantly the risk of suffering from this disease. It is especially useful among young children preventing them from the severe forms of TB.

BCG vaccine is an attenuated (weakened) live bacterial vaccine. BCG vaccine is freeze - dried, presents as a powder.

Before the injection you need to reconstitute the vaccine = mixing the solvent (isotonic glucose or saline) with powder.

For children less than 1 year old use 0.05 ml. Carefully reconstitute the vaccine, aspirating the liquid several times in your syringe.

Once reconstituted, the vaccine is efficient only for 2 hours. Don't use a BCG vaccine which has been reconstituted (mixed) for more than 2 hours. During the 2 hours, if possible, put your vaccine either in frozen water, or on your ice-pack, or put it back inside the vacumn-carrier.

The BCG is rapidly damaged if it is left under the sun. Some vials of BCG are in stain-glass, made to protect it against the light. Others have an opaque paper muff.

Preservation:

BCG should be preserved inside the freezer at -20'C, or inside the refrigerator between +4' C to 8'C.

How to administer BCG:

Age . at birth or any time after birth until 15 years (controversial)

Amount 0.1 ml > 1 yr.
0.05 ml <1 yr.

Way of administration: Intradermal: I.D.

Location: Upper part of arm (Deltoid muscle)

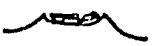
Schedule: 1 dose; 2nd dose may eventually be administered 5-10 years later (or when the child starts going to school)

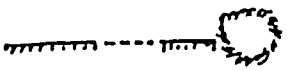
BCG: Normal reaction--

During the injection a papule appears
Disappears in 1-2 hours.

After 2 weeks, a red and sensitive swelling appears

After 1-2 weeks more an abscess appears which ulcerates

Then, there is a scab 

After the scab comes off there is a scar 

After BCG, the child may present with adenopathies, but there is still a normal reaction if these glands are not too big. The gland in the axilla of the injected arm is usually the one affected.

This normal reaction lasts an average of 3 months. Warn the parents that this will happen. The scar shows that the child has been immunized properly. During the child's next visit look for a swelling, an ulcer or a sore on the arm. Advise the parents how to treat the wound and to let it dry by air or cover it with a dry and clean dressing.

If the child is immune against Tb either by a previous immunization, or because he had a Tb infection before, the reaction to the vaccine will be the same but in a shorter time; it is an accelerated BCG reaction. The swelling may occur before 2 weeks, and the scar develops in 6 weeks.
Sometimes there is a severe local inflammation or a deep abscess.

Sometimes, too, the glands of the neck or of the axilla might become very large and suppurative. This may caused by too deep an injection, too large a dose of vaccine administered, a vaccine not properly reconstituted, or an unsterile needle.

If the reaction stays local, treatment is not necessary (except a dry dressing). If a big ulcer develops, or if the glands are huge and suppurative, treat the child for infection. If there is no improvement refer to a hospital.

The scar is important and indicates a normal BCG response. If there is no scar you have to give BCG again.

VACCINE AGAINST MEASLES = ROUVAX

The vaccine against measles is given by injection and prepared with an attenuated live virus. It is freeze-dried, and presents as a powder. It is most often called ROUVAX. The multidose vials are red-stained to protect the vaccine against the sun. This vaccine also needs to be reconstituted. The vaccine when mixed is only efficient for a short while. Don't use a measles vaccine which has been reconstituted for more than one hour. During this hour, if possible, put your vaccine either in frozen water or on your ice-pack.

Preservation:

Measles vaccine should be preserved inside the deep freeze at - 20' C, or inside the refrigerator between +4'C and +8' C.

Measles vaccine Schedule:

Age 9 months	The vaccine won't build immunity if given before 9 months because the maternal antibodies can hinder its efficiency.
Amount: 0.5 ml.	
Administration site:	SC or IM External side of the arm
Schedule	1 dose - can be given the same day as other vaccines.

Side Effects:

Fever - children may present with fever during the first 2 days, starting one week after the immunization.

Rash - there is sometimes a rash, looking like a measles rash, at the lower part of the neck.

If the fever is very high give paracetamol and warn the parents about the possibility of rash and fever.

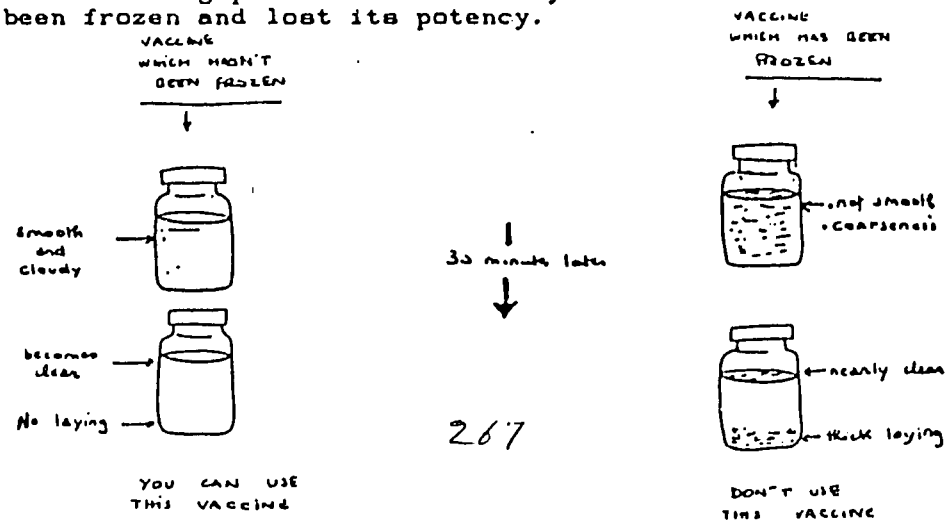
If the child is less than 9 months old:

Sometimes children suffer from measles before 9 months if they have lost their maternal antibodies much earlier than usual. If you give the vaccine to all 6 month old children, those who have maternal antibodies will not be protected properly because these antibodies will attract the vaccine as if it was the real microbe. A lot of these children will suffer from measles later. It is much better to start vaccinating at 9 months but if there is an outbreak of measles it would be better to give the vaccine to the 6 month old children and re-vaccinate again at 12 months.

DPT, DT, DPTP, TT

These vaccines are all liquids. The vaccines against diphtheria and tetanus are weakened toxins. The vaccine against pertussis is made from a killed bacterium. The injectable vaccine against polio is made from a killed virus.

All these vaccines have the same external appearance. If the vaccines have been standing for a long time, the liquid is clear and a white layer appears at the bottom of the vial. This layer moves easily and if you shake the vial the liquid will become cloudy but still very smooth and non-granular. The layer will reappear after the vaccine sits for a time again. The external appearance of the vaccine is different if they have been frozen. The following pictures will show you how to tell if a vaccine has been frozen and lost its potency.



These vaccines should not be frozen but kept in the refrigerator between 4' C and 8' C.

Administration:

Amount: 1 dose = 0.5 ml. for each vaccine

Administration route: SC or IM in external side of arm or anterior thigh

Side Effects:

Fever - usually appears on the day after the immunization and doesn't last longer than a day. Fever which starts more than 24 hours after immunization is not related to the vaccine--look for another cause.

If fever is high give paracetamol and advise the mother to be sure the child is not dressed too warmly. If the fever gets too high, sponging with cool water is very effective.

Warn the parents about possible fever and explain how to cope with it.

There may be some tenderness at the injection site which will disappear in 3-4 days. And an abscess could occur if an unsterile needle is used.

A child who has had convulsions after the first shot shouldn't be given the vaccine against pertussis again.

DPT: Vaccine against Diphtheria, Pertussis (Whooping Cough) and Tetanus

DT: Vaccine against Diphtheria and Tetanus

TT: Vaccine against Tetanus (Tetanus Toxoid)

Schedule for Tetanus Toxoid:

At any age, but especially for childbearing aged women or pregnant women. The aim is to protect the newborn babies during the neonatal period.

Two shots given 4 weeks apart during the pregnancy (first shot during first 3 months of pregnancy and second shot at end of 8th month or at least 2 weeks before delivery). A booster dose can be given at each pregnancy--but don't give more than 5 doses.

DPTP - IMOVAX: Vaccine against Diphtheria, Pertussis, Tetanus, Poliomyelitis

IPV - Injectable Polio Vaccine

Given from 3 months (as of 4/89)

2 shots given 6 months apart. It is possible to give these 2 shots 2 months apart but it is not advisable. It is alright if the time period between the shots is longer than 6 months.

For the following 4 vaccines: DPT, DT, TT, DPTP immunization series , if there is an interruption in the series it need not be started from the beginning but can be completed at the point at which it was stopped.

OPV: Oral Polio Vaccine

Is prepared from attenuated (weakened) living virus. It is an orange or pink liquid and is in a special vial with a dropper. In each vial there is 4 ml of vaccine with each dose being 0.2 ml. OPV is the vaccine most quickly spoiled by heat. For this reason we can't use it inside Afghanistan at this time.

Side Effects:

There usually are no side effects. However, if the child presents with diarrhea before the vaccination, the vaccine is not going to be as efficient as usual, so you will have to administer a supplementary dose 4 weeks after the end of the immunization's series.

All of these vaccines can be administered during the same immunization session (but no more than 6 vaccines the same day) and should be injected at different body sites.

BCG Upper part of the arm (deltoid muscle)
Other vaccines - Subcutaneous or intramuscular injection site.

Suggestion: BCG - one arm
Measles - other arm
DPTP - IM anterior side of thigh.

Check before giving a vaccine:
Name of vaccine
Expiration date
Number of doses contained in the vial
Kind and quantity of solvent you use
Be sure all rules of preservation have been followed.

Pakistan Immunization Schedule:

Birth	BCG and OPV
6 wks	DPT 1 and OPV 1
>10 wks	DPT 2 and OPV 2
>14 wks	DPT 3 and OPV 3
> 9 mo.	Measles vaccine

1 year after DPT and OPV #3 - DPT and OPV booster

Between ages 2-5 children are given DT in Pakistan.

Afghanistan Immunization Schedule:

Birth	BCG
> 3 mo.	DPTP 1
> 9 mo	DPTP 2 + measles vaccine

BCG should be given to all children who do not have a scar.

After age 6 years it is better to give TT.

VII Record Keeping:

This is an example of an immunization card:

AFGHANISTAN

[redacted]	ولسوالی
[redacted]	نمبر
نام طفل	نام پدر
تاریخ تولد	نمبر ثبت نام
تاریخ مراجعه اول	سن طفل در زیارت اول
واکسین ها	

خواهر و برادر

سال تولد	جنس	نام طفل	سال تولد	جنس	نام طفل

واکسینیشن

B.C.G	سن: ____	تاریخ: ____
I D.P.T.IPV II D.P.T.IPV	سن: ____ سن: ____	تاریخ: ____ تاریخ: ____
[redacted]	سن: ____	تاریخ: ____
I T.T II T.T	سن: ____ سن: ____	تاریخ: ____ تاریخ: ____

وغیره ____

VIII Informing and Teaching the Community

Who needs to be informed first?

> The chiefs, commanders, mollahs, village elders and other people who decide the life of the community need to be informed of the vaccinator team visit.

They need to be told when the session is going to take place and where. They also need to be reminded of the importance of immunization campaigns. Many of the older people will remember the campaign to eradicate smallpox. It is especially important to eradicate measles in Afghanistan as one child in four dies when he has measles.

The community needs to know that:

1. It is not necessary to immunize against a disease when the child has already had the illness.

2. If there is any doubt: vaccinate the child.

3. There is not a vaccine for every disease (e.g. no vaccine against bronchitis)

4. Usually one vaccine protects against one disease and not against all diseases.

5. Vaccines <u>don't</u> cure disease.

6. Several vaccines need to be boosted by a second shot or they are not effective.

7. It is necessary to have cards and registers to know whether children have been immunized. It is necessary to have correct information before performing the immunizations.

8. When it stimulates the body, the vaccine may cause fever. It is not harmful if the child has been given paracetamol to prevent this side effect.

You should explain simply <u>how</u> the vaccine is effective and also briefly explain the side effects so people won't be surprised and will come back for the second immunization.

ANATOMY OF THE SKIN

The skin consists of two parts, the epidermis and the dermis.

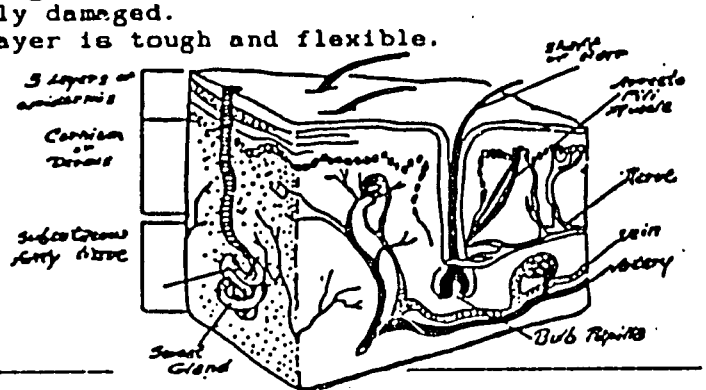
1. The upper layer, called the epidermis consists of cells, like the bricks in the wall of a house. Most of the cells in the epidermis are living, but the outside row of cells contains dead cells. These dead cells can be seen dropping off as small flakey scales.

2. The inner layer, called the dermis consists of a framework of living cells. This inner layer (dermis) contains the blood vessels which supply the skin with nutrients (food). Nerves, hairs, oil glands and sweat glands are also found in this layer.

3. Underneath the two skin layers is the subcutaneous or fat layer. The fat layer protects the body from heat and cold.

REMEMBER!

The epidermis is tough.
The dermis is easily damaged.
The subcutaneous layer is tough and flexible.



FUNCTIONS OF SKIN

1. Protection The skin with its underlying layer of fat protects the body from the outside world. The skin prevents heat, cold, trauma (injury), and bacterial infection from damaging the important structures of the body.

2. Regulation of body temperature The skin also plays a part in regulating our body temperature. When the body is too hot with fever, if you cool the skin, it will help lower the fever. If the body is cold, covering the skin with clothes or blankets will warm the body.

SKIN LESIONS ✓

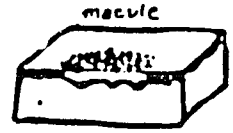
Skin lesions can be single or many in number. They can be small or large as well as different in color. They can cover a small or large area of the body. Record: size, shape, color, skin layer involvement.

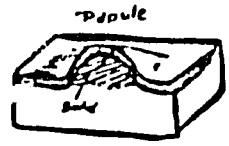
Abrasion - A scratch (abrasion) is minor damage to the skin, epidermis only. A reddish non-bleeding or slightly bleeding surface is seen upon examination.

Ulcer - Ulcer is the name given to skin damage that affects the epidermis and the dermis. An ulcer will bleed because of the damage to the dermis.

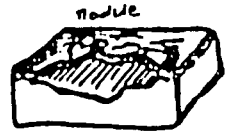
Wart - If the epidermis increases in thickness and forms a rough surface with fissures, it looks like a wart.

Macule - Macules are small spots on the skin. These spots may be caused by enlarged blood vessels in the dermis or inner skin layer. macules are flat and maybe red, brown, or white. Macules larger than 1 cm are called patches.

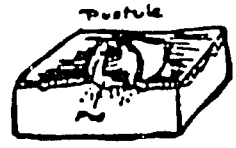




Papule - Papules are small, hard, red or brown bumps on the skin. Papules larger than 1 cm are called plaques.



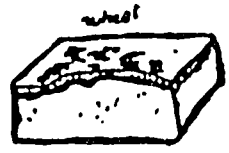
Nodule - A nodule is a lump under the skin in the dermis which is larger than a papule.



Pustule - Pustules are raised areas of the outer layer (epidermis) and the upper part of the inner layer (dermis) which contain pus. Pustules can result from the vesicles which become infected.

Abscess A pus filled lesion under the dermis is an abscess.

Vesicle- Vesicles are raised with clear fluid visible under the epidermis. If vesicles break, they leave holes (when these holes dry out you see rounded scaly lesions). If vesicles are larger than a grain of rice, they are called blisters.

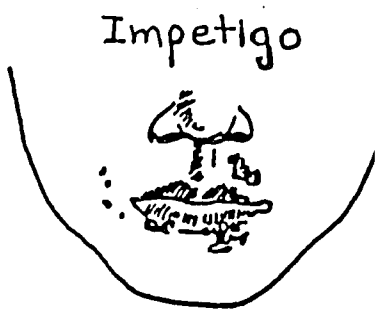


Wheal and hives - a wheal is an irregular water-filled lesion usually resulting from an allergy. Many wheals together are called hives. In severe hives, water may swell up the lip, tongue, or throat. If the t[illegible]t swells up from an allergy, the patient [illegible] breathe.

BACTERIAL INFECTIONS

IMPETIGO

Impetigo is a very common contagious disease usually seen in children under 10 years. It is caused by infection by one of several bacteria.



Clinical Picture

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.

Signs and Symptoms

- the skin has yellow-brown crusty scabs
- fever is unusual but can occur
- be sure to check the scalp and all covered parts
- itching is common
- the face and arms are most common

Treatment

- 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 po 4X/day - 3 days and reevaluate
  Adult: 250 mg
  Child: 50 mg/kg/day divided 4X/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.

2/5

- Do not let a child with impetigo sleep or play with other children.
- Begin treatment at the first sign of the disease.

BOILS/ABSCESSES (Furuncles)

General Consideration

Boils are infections of hair follicles by staphylococci. They are not highly contagious.

Clinical Picture

The initial small inflammation develops into a deep and painful sore. After a few days, the lesion develops a yellow "head" and is soft (fluctuant) with pus inside. Several together are called a carbuncle.

The words boil and abscess are often used interchangeably to describe a localized collection of pus caused by disintegration of tissue. An abscess usually involves a greater amount of tissue and therefore causes a great deal more discomfort.

Complications

Repeated occurrence of boils is a strong indication that the boils are a complication of some underlying condition such as scabies, diabetes, or malnutrition.

Management

1. When the boil is soft (fluctuant) and has a yellow head, it should be lanced (cut) with a sterile knife blade. The incision (cut) should be as large as the area of fluctuation. Do not squeeze out the pus. Separate wound edges and irrigate cavity. If the boil (abscess) is large, insert a wick and apply a dressing.

2. Wash and rebandage the wound daily.

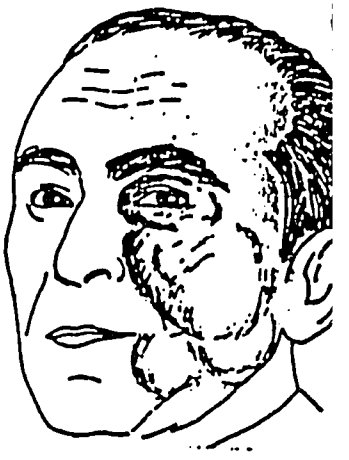
3. Recurrent boils on the face and carbuncles should all be treated with oral penicillin for one week and should not be squeezed. If penicillin fails use tetracycline or cotrimaxazole (Bactrim).

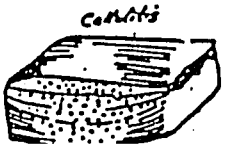
4. Patient with recurrant boils should be examined for scabies, diabetes and/or malnutrition.

Prevention

1. Avoid direct contact with persons with boils.
2. Regular bathing with soap and water.

CELLULITIS





General Conditions

Cellulitis refers to a bacterial infection streptococci or staphylococci of the subcutaneous tissues. It spreads rapidly along the lymphatic vessels. It is not highly contagious, but can be spread by direct contact with others. It is usually not dangerous unless located on the face.

Clinical Picture

The problem usually begins with some small lesion on the skin (a cut or a sore). Then the skin around the lesion quickly becomes red, hot, raised and tender. Red lines may be seen along lymphatic vessels. There is usually no collection of pus. An incision is not useful.

Complications

The infection may spread to a wide area causing the patient to be very ill.

Signs and Symptoms

- The skin is red, hot and painful
- swelling is common, with induration (firmness)
- lymph nodes in the area may be enlarged and tender
- there may be fever, chills and malaise
- there may be a red "stripe" going up the arm or leg which is also tender

NOTE: in cases of cellulitis without a break in the skin, evaluate for the presence of fluctuance.

Treatment

1. Paracetamol for pain and fever.
2. Penicillin V po 4X/day for 7 days.
   Adult: 500 mg.
   Child: 50 mg/kg/day divided 4X/day
3. If fever > 39 degrees or facial cellulitis use Chloramphenicol po 4X/day.
4. Hot soaks using clean cloth in heated water 3 to 6 times a day.

FUNGUS DISEASES OF THE SKIN

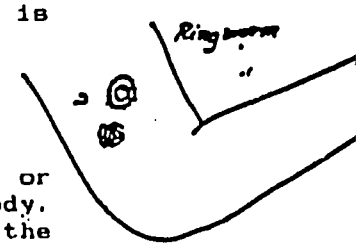
Skin diseases such as ringworm (tinea capitis) and athlete's foot (tinea pedis) are caused by fungi which infect the outer layer of the skin. These may also infect the scalp and nails. These fungi live and grow best under conditions of warmth and moisture; thus fungal infections are more common in the summer. Fungal infections frequently occur on moist, sweaty areas of the body. These are spread by contact with contaminated articles of clothing, shoes, towels, floors, etc. Skin which has been damaged by perspiration and poor hygiene may have the false appearance of a fungal infection.

Fungal skin infections are common and can become chronic if not properly treated. Skin, hair, nails and mucous membranes can be affected. Infection is either due to Tinea or to Candida. Tinea is passed from person to person by direct (tinea) contact. It is usually in dry areas. Candida is usually found in wet areas.

RINGWORM
(Tinea Capitis, Tinea Corporis and Tinea Pedis)

General Considerations

Ringworm is the common name for a fungal infection of the skin. It is so named because it forms a red ring on the skin. It is very common, especially in children. Ringworm spreads easily from person to person by direct contact. On the scalp, it is sometimes called tinea capitus. On the rest of the body, it is sometimes called tinea corporis.



Clinical Picture

Ringworm usually presents as a "rash" or "itching". It can occur anywhere on the body. It is seen frequently in the groin and on the face, neck and foot. The lesion(s) usually have a sharp raised border with flaking skin in the center. Ringworm on the scalp causes the hairs to break off in patches. Ringworm does not cause loss of sensation as in leprosy. Tinea Corporis has central and satellite lesions.

1. Scalp (tinea capitis)

Signs and Symptoms

- scaling is common
- itching is common
- affected scalp can become thickened and red
- one or more areas with broken or lost hair.

Diagnosis also by laboratory technique with microscope. See lab manual.

Treatment - Ringworm

MILD CASES

1. Wash affected areas with soap.
2. Apply gentian violet 2X/day for 3 weeks.

SEVERE CASES or TREATMENT FAILURE for mild cases

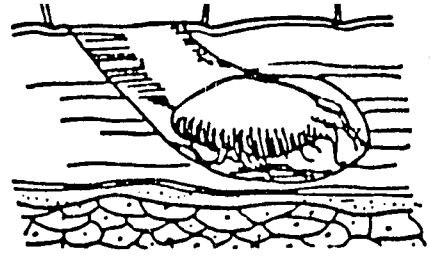
1. Wash affected areas with soap.
2. Griseofulvin (500 mg tablets)
   6 tablets (3.0gm) by mouth as a single dose.
3. Follow-up in 4 weeks.
4. If there is growth of the lesions - repeat Griseofulvin or use 4-6 week course.

Fungal infection of the feet. A fungal infection of the feet is sometimes called "athlete's foot". It is the most common fungal skin disease, and usually occurs as an inflammation of the skin between the toes and on the bottom of the feet. The skin can become thickened and scaled. Often it is raw and inflammed with cracked skin and blisters. There is usually much itching. Athlete's foot tends to worsen when the feet, are wet often with perspiration. It is a difficult infection to cure if the patient does not follow instructions faithfully.

Care of the feet. Keep feet clean and dry. Feet should be washed daily, and dried completely, especially between the toes. Persons whose feet sweat excessively should use foot powder with twice-a-day washing of the feet.

Prevention

Control measures. The way to avoid these infections is to avoid contact with people whose skin is infected. Also to avoid contact with infected articles of clothing or areas (such as shower floors which can carry the fungus). Special care to prevent infection of the feet as above.



SCABIES (The Itch)

General Considerations

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

Treatment

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.

REVIEW QUESTIONS

1. What procedure would you advise for a family if you discovered one member with scabies?

2. Where does scabies occur on the body?

3. What is the treatment for scabies in the adult? In the child?

LICE

VIRAL SKIN INFECTIONS

1. MEASLES

Measles is a severe common disease among unvaccinated children. It is most severe in poorly nourished children and infants. The most important thing to remember about measles is that it can be prevented in all children by vaccination. Measles is caused by infection with the measles virus. This virus is passed from child to child during close contact.

Epidemiology - Measles is found throughout the world. It occurs in epidemics every three to five years. During these epidemics almost all children (and occassionally adults) who have not had measles or the vaccine will come down with the disease. The incubation period (from time of contact to beginning of rash) in about 14 days.

Clinical Picture - Measles begins like a bad cold with a high fever, runny nose, red watery eyes, cough and generalized malaise. On the second or third day, small white spots with red circles around then appear in the mouth on the inside of the cheeks.

On the third or fourth day, a rash appears on the face and quickly spreads to cover the entire body. On pale skin, the rash is a bright bluish red. On dark skin it is more difficult to see and may appear almost black. It is slightly raised. The initial rash is spotty but becomes confluent in a few days. In uncomplicated cases the fever and rash begin to fade two to three days after the first appearance of the rash. This is followed by peeling of the skin.

Complications - Unfortunately, complications of measles are common and life threatening. These complications are usually seen in malnourished children and infants:

- High fever and convulsions
- Pneumonia (rapid breathing with respiratory difficulty)
- Mouth sores (unable to eat or breast feed enough)
- Diarrhea, vomiting , dehydration
- Otitis media (painful and/or draining ear)
- night blindness and dry, dull eyes
- Malnutrition

Management of Measles and Its Complications

No antibiotics nor other drugs are needed for uncomplicated cases. The most important treatment for measles is food and fluids. Babies should take the breast as often as possible. Older children should be fed soft foods like milk, eggs, porridge,etc. Avoid spicy and greasy foods. Fluids should be strongly encouraged. If the child is unable to take breast or other fluids by mouth, then tube feedings or an I.V. must be used.

Patients with measles should be examined frequently (at least once a day) until the fever and rash begin to fade. In this way, complications can be noted and treated early. Infants and children of all ages should be kept overnight in the clinic if any of the following findings are present:

1. Bloody stools or frequent stools (more than five a day) or dehydration.
2. Unconsciousness or convulsions.
3. Pneumonia.
4. Malnutrition.

In addition to the above, infants should stay overnight in the clinic if they have either of the following:

1. Soreness of the mouth that interferes with sucking.
2. Labored breathing.

Isolate children with measles from other children.

Management of Complications

1. High fever:

Paracetamol syrup	0-12 mo.	1/2 tsp. every 4 hr.
	1-4 yrs.	1/2 - 1 tsp. every 4 hr.
	5-12 yrs	1-2 tsp. every 4 hr.

2. Mouth sores:
   Older children can be maintained on fluids and soft foods. Infants may require tube feedings.

3. For treatment of the other complications see the respective management protocols.

Prevention

Measles can be prevented by one injection of measles vaccine. This should be given routinely to all infants older than 6 months of age. Older children up to 6 years of age not yet vaccinated nor ever infected with measles should also be vaccinated. Both the vaccine and the disease provide permanent immunity to measles in almost all cases.

Suspected cases of measles should be reported to a supervisor.

2. CHICKENPOX

Chickenpox is a mild, common infection seen in children. It is caused by a virus. It is very contagious. It usually occurs in epidemics.

<u>Signs and Symptoms</u>

Chickenpox is usually very easy to diagnose. There is a rash. The rash consists of many small lesions which progress from red spots to blisters to ulcers with scabs. Several stages can be seen at the same time, after the first day. Most of the lesions are found on the chest and abdomen. Lesions are rarely seen on the palm of the hand or sole of the foot.

Complete healing takes place in about 10 days. Complications are unusual. Infections of the skin lesions are sometimes seen. Rarely some children will develop pneumonia, meningitis, kidney disease, or cellulitis.

<u>Treatment</u>: No treatment is necessary in uncomplicated cases.

1. Give good food and enough to drink.

2. In case of pain or fever give paracetamol.

3. For severe itching:
   Chlorpheneramine
   Children: 2mg (1/2 tablet) 4 times/dayfor3 days.
   Adult: 4 mg (1 tablet) 4 times/day for 3 days.

   Cut fingernails and keep clean. May need mits on hands or restrain.

4. For bacterial superinfection:

   a) skin - Gentian violet or oral penicillin as needed.

   b) pneumonia - per respiratory chapter.

STUDENT GUIDE

ALLERGIC SKIN REACTIONS

I. Entry Level Knowledge and Skill

Before starting this unit you should be able to:

1. Identify skin lesions.
2. Examine skin.
3. Obtain and record history.

II. Objectives

Using the information and experiences provided by the instructor and the module text, you will be able to:

1. Describe the clinical picture, management and prevention of drug reactions, eczema, contact dermatitis, hives and psoriasis.

2. Use protocols to diagnose skin problems caused by allergic reaction.

III. Evaluation

Upon completion of this module you will be rated on your attainment of the above objectives.

1. Knowledge: Written test based upon module content. Acceptable performance, 75%

IV. Activities you will be participating in to accomplish the objectives.

1. Trainees read module text and answer review questions on drug reaction, eczema, contact dermatitis. Write questions concerning allergic reactions for discussion group.

2. Instructor presents slides and conducts discussion group.

3. Instructor demonstrates the use of protocol in the diagnosis of allergic reactions.

4. Trainees practice use of protocols in diagnosis of case study problems.

DRUG REACTIONS

General Considerations

Skin reactions to various drugs are sometimes seen. Reactions to PCN are the most common. Any age or sex may be affected.

Clinical Picture

1. Recently taken a drug.

2. Pruritis (itching) is usually present.

3. Patchy, red, raised rash of sudden onset (Hives).

4. Marked swelling of the skin may occur in some cases.

5. Occassionally people develop a reaction to a drug after taking it for a long time.

Management

1. Stop the drug!

2. Increase fluid intake to speed up the excretion of the drug.

3. Chlorpheniramine Maleate (Piriton) Promethazine (phenergan) or other antihistamine drug.

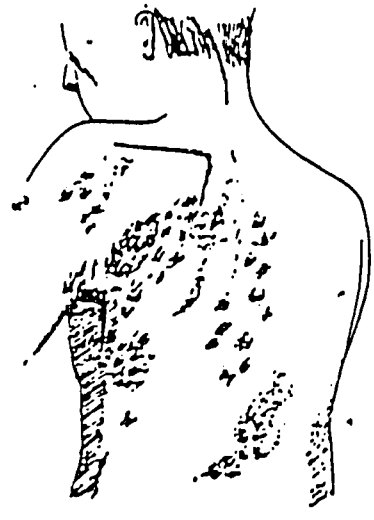
4. Epinephrine (Adrenalin) 1:1000 subcutaneous 0.2 - 0.4 cc if the acute skin reaction is severe.

5. If the patient is having difficulty breathing following an injection (especially PCN), give epinephrine 1:1000 subcutaneous 0.4 cc immediately. See management of anaphylaxis in Emergency Module.

HIVES

General Considerations

Acute hives is an allergic skin reaction usually caused by a recently taken food or drug. Often the cause is difficult if not impossible to find. Other causes include: bacterial or worm infections, insect bites, and emotional problems. Food and drugs which commonly result in hives include: shellfish, eggs, milk, chocolate, penicillin, aspirin, belladonna, horse serum and vaccines. Chronic cases of hives also occur. They present a difficult diagnostic problem.



Clinical Picture

The patient with hives presents with a raised, red rash in the form of wheals (or round patches) of varying sizes. Itching is usually severe. Fever may be present. Nausea and diarrhea may occur as a result of wheals on the lining of the G.I. tract. The symptoms usually last 1 to 2 days then disappear.

Complications

Obstruction of the airway may occur in severe cases.

Management

1. Chlorpheniramine usually gives dramatic relief of symptoms.

2. Stop all medications and new or unusual foods, especially those listed above.

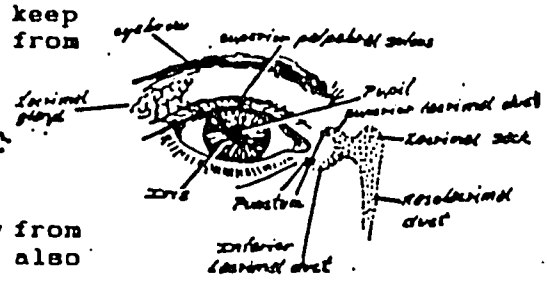
3. Epinephrine 0.3 - 1.0 ml of 1:1000 solution subcutaneous in cases of difficulty breathing, or if chlorpheniramine does not give relief.

4. May use hydrocortisone cream or cooling measures to control itching.

Prevention

Avoid taking food, drugs or etc. suspected or known to cause hives in an individual.

ANATOMY AND PHYSIOLOGY OF THE EYE



Eyelids

Eyelids are skin folds that help to keep the eye moist and protect the eye from injury.

Tears

Tears keep the eyes moist and clean.

Eyelashes

The eyelashes are the hairs that grow from the edge of the eyelids. Eyelashes also help to protect the eye.

Conjunctiva

The conjunctiva not only covers the inside of the eyelids, but also part of the eye. Because the conjunctiva is full of blood vessels, the conjunctiva covering the inside of the eyelid is pink. The conjunctiva is clear and the sclera that it covers is white. The conjunctiva covering the sclera ends at the cornea.

Sclera

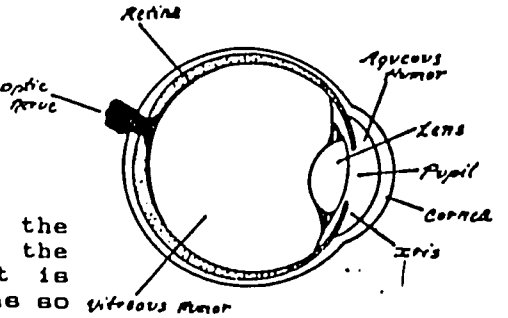
The sclera, or white part of the eye, is made up of a tough supporting layer which helps to maintain the shape of the eyeball. The sclera covers all of the eye except the front part of the eye covered by the cornea, and the area where the optic nerve enters the eyeball.

Cornea

The cornea is the sclera covering over the front of the eye. The cornea is clear so as to allow light to enter the eye.

Iris

The iris is the circular colored muscle which lies beneath the cornea. The iris controls the amount of light that passes through the pupil, the black circular opening in the center of the iris. When there is too much light, the iris makes the pupil smaller. This cuts down on the amount of light entering the eye through the pupil. When there is very little light, the iris dilates the pupil, making the pupil larger. This allows more light to enter the eye.

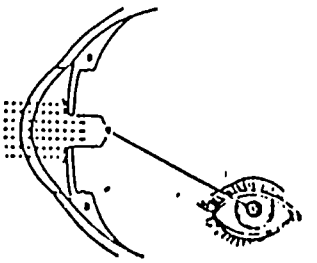


Lens

The lens lies behind the iris and the pupil. After light passes through the pupil, it enters the lens. Light is focused as it passes through the lens so you can see a picture.

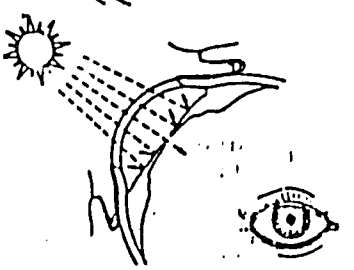
Vitreous Humor

The light has been focused by the lens then passes from the lens into the vitreous humor. The vitreous humor is a clear jelly-like fluid inside the eye which helps to maintain the round shape of the eyeball.



Retina

After the focused light has passed through the vitreous humor, it strikes the retina. Nerves in the retina pass impulses from the focused light on to the brain through the optic nerve.

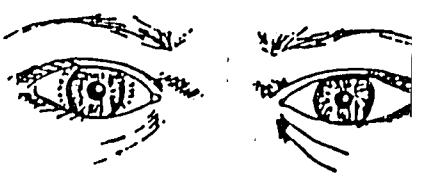


- Physiology
eye. When there is too much light, the iris makes the pupil smaller.

TECHNIQUES OF EXAMINATION

a. Visual Acuity: You can screen a patient by asking him to read any available printed matter using one eye at a time. Cover one eye with a piece of paper, not with his hand. This simple method will give you enough information to decide whether the patient has a visual acuity problem and the approximate degree of the problem.

b. Observe the eyes for position and alignment to each other. Note the position of the eyelids in relationship to the eyeballs. You will easily see edema, discoloration, lesions and condition of the eyelashes.



c. Conjunctiva and sclera: You can easily check the condition of these by asking the patient to look up while you depress the lower lid. Note: color, presence of swelling or nodules.

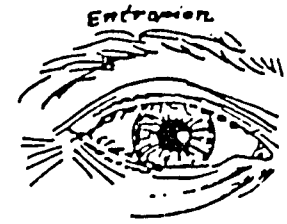
d. Cornea and lens should be clear. Note any opacities.

e. Pupils: Observe size, [illegible] and equality of the pupils. Check the pupils for reaction to light. Pupils should dilate and constrict equally when adjusting to dim or bright light.

II. ABNORMALITIES

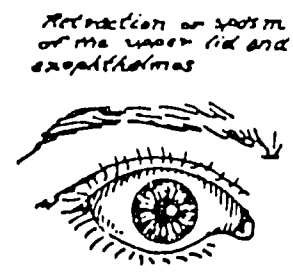
a. Swelling, discoloration, lesions, scaliness of the tissues around the eyes.

Entropion: An inward turning of the lid margin. The lower lashes are often invisible and they irritate the conjunctiva and cornea.

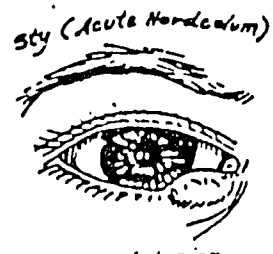


Periorbital Edema: Edema tends to accumulate under the skin of the eyelids due to its loose attachment. Causes of this include allergies, local infection and inflammation, thyroid disease (myxedema), and any cause of fluid retention such as kidney disease, and, finally, crying.

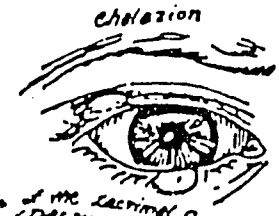
Exophthalmos: This is due to hyperthyroidism. There are associated signs of thyroid excess in the body.



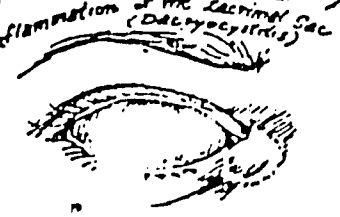
Sty: A painful, tender, red, infected hair follicle of the eyelashes. A sty looks like a pimple or boil pointing on the lid margin.



Chalazion: A chalazion is a chronic inflammatory lesion involving a meibomian gland. This is usually painless. Sometimes it becomes acutely inflamed, and if so, unlike a sty, usually points inside the lid rather than on the lid margin.

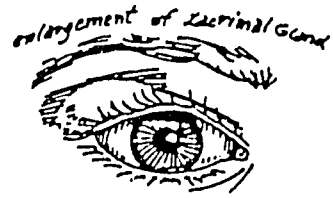


Inflammation of the lacrimal sac: This is a swelling between the lower eyelid and the nose over the lacrimal apparatus. In an acute inflammation, it is painful, red, and tender with surrounding cellulitis.



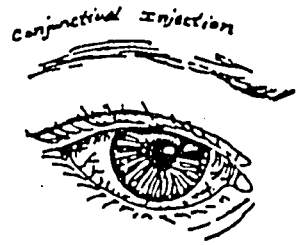
Enlarged lacrimal gland: An enlarged gland can be due to either an inflammation, infection, or a tumor.

b. Discoloration of the conjunctiva, sclera - jaundice, anemia, cyanosis.

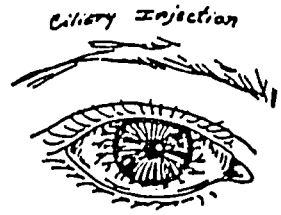


CAUSES OF RED EYE

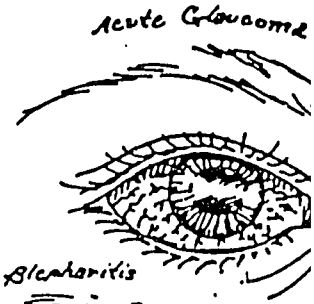
Conjunctivitis: The conjunctival vessels are inflamed. The redness fades as it comes closer to the iris. The pupil size is normal and visual acuity is normal. This can be due to irritation, infections, either viral or bacterial, or allergies.



Iritis: In this condition, the branches of the anterior ciliary artery which supply the iris are inflamed. In this situation, the vessels that are inflamed surround the iris. The pupils are normal or small and irregular. Visual acuity is decreased. This requires prompt evaluation and the patient should be given a dilator of the pupil and a patch should be placed.

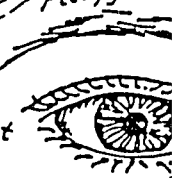


Glaucoma: The entire conjunctiva is red. The vessels are very irregular around the iris. Visual acuity is decreased. The patient has significant pain and there is sudden increase in intraocular pressure. This is an emergency.

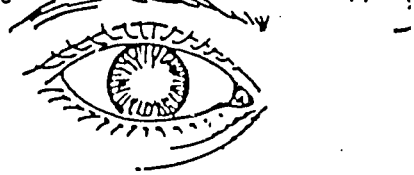


Blepharitis: The lid margins are inflamed. There may be a red or yellowish scale around them. The pupil size and shape is normal and the patient often has associated seborrhea or staphylococcal infections.

Pterygium: A triangular thickening of the conjunctiva which grows slowly across the cornea usually from the nasal side. Reddening may occur intermittently.

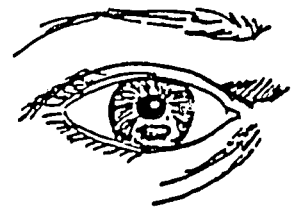


Cataract: A cataract forms a central gray opacity viewed against a dark background of the pupil. When looking at the cornea with a flashlight at an angle, one may see the gray reflection of the cataract. The patient's visual acuity is markedly decreased in that eye.



CORNEAL LACERATION AND ULCER

General Considerations



A corneal ulcer is a complication of a traumatic corneal laceration or severe conjunctivitis. A break in the smooth surface of the cornea becomes secondarily infected by a virus or bacteria and a corneal ulcer develops. People who are at a high risk of developing a corneal ulcer are those whose work increases the possibility of eye injury such as woodcutters, blacksmiths, and stone masons. People who are constantly exposed to flies and thus develop conjunctivitis also fall in this high risk category.

Clinical Picture

A mother will frequently bring in her child and tell you "he has a red eye". Older patients commonly say that "something got into my eye". The pain is made worse when the patient blinks or closes his eye. He does not like to look at light. Blurred or poor vision may also be a complaint. You will first notice that the conjunctiva is red and that there are increased tears. When a bright light is reflected off the cornea, you will notice that part of the cornea is not smooth and shiny like a healthy cornea. A white/gray spot or line is seen.

Complication

A corneal ulcer can scar the cornea or erode through the cornea and spread the infection to the inside of the eye. A partial loss of vision can develop due to scarring. A complete loss of vision can develop due to iritis. A corneal laceration or ulcer is to be treated as an emergency.

Management

A corneal laceration is to be treated as if it is an ulcer to prevent the development of an ulcer. A patient with either problem is to be referred to a physician as soon as possible. Before referring to a physician, the

following is to be done:

1. Apply tetracycline eye ointment.
2. Tape an eye pad or sterile gauze over the eye.
3 Record medications and time applied on referral slip.
4 If patient cannot be immediately referred:

   a: Reapply tetracycline ointment 3 times per day.
   b: Reapply a clean eye pad following each application of ointment.
   c: The patient is to be examined and treated daily until all symptoms and signs of a corneal laceration or ulcer have disappeared.

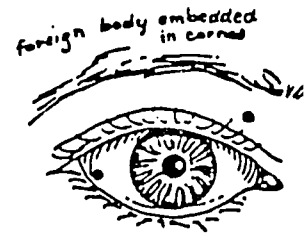
Prevention

Instruct workers who fall within the high risk category in how to protect their eyes from injury. If they suffer an eye injury, they are to come to the clinic immediately. Anybody who develops a "red eye" is to come to clinic immediately. Fly control and the basic steps in personal hygiene help to prevent the spread of conjunctivitis.

FOREIGN BODY IN THE EYE

General Considerations

A foreign body in the eye is any object which enters the eye from the outside of the eye. Hard objects such as wood, sand, small bits of rock, metal and glass can easily injure the eye by causing a corneal laceration or penetrating the eye. Woodcutters, blacksmiths and stone masons are at risk of getting a foreign body in their eye because of their work.



Clinical Picture

A patient will usually say "something is in my eye" and point to where it is located. The pain is made worse when the patient blinks. You will first notice that the conjunctiva is red and that there is increased tearing. If the "foreign body" is not immediately seen on the cornea, it is usually found under the upper eyelid where the conjunctiva covering the eyelid and sclera meet.

Management

Go to the skill section on location and removal of a foreign body from the eye.

Prevention

Instruct workers who fall within the high risk category in how to protect their eyes from injury. If they suffer an eye injury, they are to wash out the eye with water and then come to the clinic immediately.

LOCATION AND REMOVAL OF A FOREIGN BODY FROM THE EYE

Supplies

Good light source
Eye wash cup or IV tubing without needle
Bottle of normal saline
Kidney shaped basin
Sterile cotton tipped applicators
Local anesthetic for the eye (if available)
2X2 or 4X4 sterile gauze
Tetracycline eye ointment
Eye patches
Adhesive tape

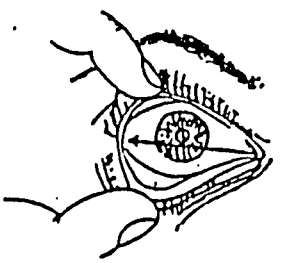
Purpose of Procedure

The purpose of the procedure is to determine if a suspected foreign body is in the eye and to attempt to remove the foreign body if found to be present.

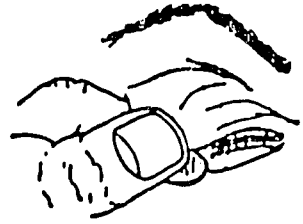
Steps in Procedure

After you have located and organized the equipment you need, wash your hands with soap and water. Have the patient lie down on their back, positioning yourself at the top of the patient's head. Illuminate the affected eye with your light source. If the patient can tell you where they think the foreign body is located, open the patient's eye as wide as possible and have the patient look in the opposite direction of where they think the foreign body is located. If the patient says that the foreign body is located on the upper part of the eye, you would have to look downward.

If at this time the foreign body has not been located, you will want to check the conjunctiva underneath the eyelids. Foreign bodies are most commonly located underneath the upper eyelid. To check underneath the upper eyelid, you grasp the lashes and lid margin with the thumb and index finger of your left hand as you ask the patient to look downward. Then pull the eyelid gently down and away from the eye (Step 1)



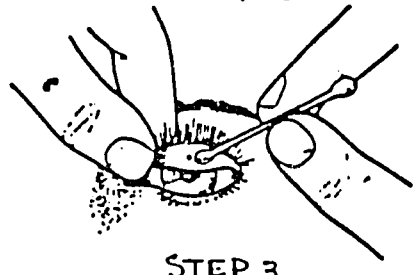
Place the wooden end of the cotton tipped applicator you are holding in your right hand across the top of the upper eyelid (Step 2). Continue to gently pull the lashes and lid margin out and upward folding the lid back over the wooden edge of the cotton tipped applicator (Step 3). This exposes the underside of the upper eyelid. Hold the eyelid in this position with your left index finger while you remove the cotton tipped applicator (Step 4). Start your search for a foreign body as the patient continues to look downward.



STEP 1

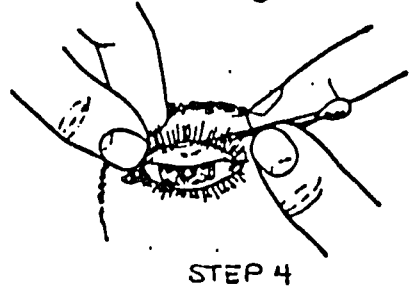
STEP 2

If the foreign body is not found on the inside of the upper eyelid, you will need to check the inside of the lower eye. Place the index finger or thumb of your left hand on the skin directly below the lower lid. To expose the inside of the lower eyelid, press your index finger downward (Step 5). By having the patient look up and then to the left and the right, you can usually locate the foreign body in this area.



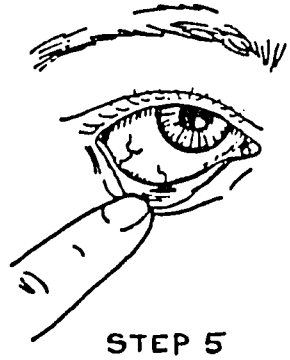
STEP 3

Once the foreign body has been located, there are two techniques you can use to remove the foreign body: the eye wash or the use of a cotton tipped applicator. You should try to wash the foreign body from the eye first.



STEP 4

Normal saline is poured into the eye wash cup (normal saline from an IV drip without the needle can also be used). With the patient still lying on their back, rotate the head so that the affected eye is lower than the unaffected eye. Have the patient hold the kidney shaped basin tightly to their cheek to catch the solution being used to wash out the eye. Open the eye as wide as possible. When pouring the eye wash solution, you start from the inner side of the eye, next to the nose, and pour the solution , moving toward the outside of the eye away from the nose. As you are washing out the eye, have the patient look in all directions. After you have completed the eye wash, dry the eye with a sterile gauze.



STEP 5

If the foreign body cannot be removed using the eye wash technique, you may be able to remove it with a cotton tipped applicator. No matter where the foreign body is located, the technique for removing the foreign body by

using a sterile cotton tipped applicator is the same. First the cotton tip is moistened with normal saline. With the patient lying on their back, open the eye as wide as possible exposing the upper and lower eyelid, depending on where the foreign body is located. With a gentle stroke, wipe the foreign body from the surface on which it is located.

Results

If you are able to remove the foreign body from the eye using the eye wash or cotton tipped applicator technique before you add an antibiotic eye ointment and patch the eye, do not forget to check the eye for a corneal laceration. If a corneal laceration is not found, add an antibiotic eye ointment to the eye. Have the patient return the next morning if the eye is still bothering him or if any redness is noticed when the patient removes the eye pad that morning.

If any of the following conditions are found, refer to the treatment for corneal ulcer:

1. You think that a foreign body is still in the eye, but you cannot locate it.

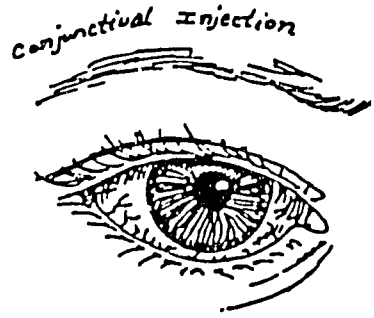
2. A corneal laceration is found.

3. A corneal ulcer is found.

4. A foreign body is found, but you cannot remove it.

CONJUNCTIVITIS

General Considerations



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 form 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.

Clinical Picture

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 from 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 followup 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. Check carefully for corneal ulcers. If corneal ulcers are found, follow treatment list under corneal ulcers.

Management of Newborn Conjunctivitis

See pediatric section on this topic

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.

EXAMINATION OF THE CONJUNCTIVA FOR ABNORMAL SIGNS OF INFLAMMATION AND LOCATION OF INFLAMMATION

Supplies: Good light source

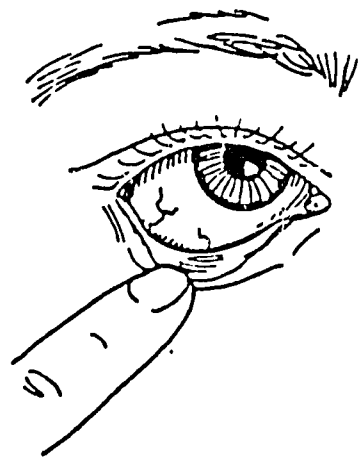
Purpose of Procedure

The purpose of this procedure is to help you to identify the absence or presence of the abnormal sign of inflammation of the conjunctiva in the location of the inflammation when evaluating a patient for possible corneal ulcer, foreign body, acute trachoma iritis, glaucoma and conjunctivitis.

Steps in Procedure

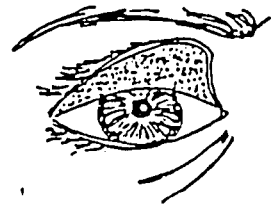
The conjunctiva covers the inside of the eyelids and the sclera. Healthy conjunctiva covering the inside of the eyelids is pink. With the exception of a few small blood vessels which can be seen in the conjunctiva covering the sclera, this area covered by the conjunctiva is clear when healthy. Inflammation of the conjunctiva results when the conjunctiva is irritated and the blood vessels in the conjunctiva dilate in a particular area covered by the conjunctiva. Being able to recognize a general or specific area of inflammation of the conjunctiva will help you define the problems listed the "red eye" protocol. You will be able to use the unaffected eye as your reference for a healthy conjunctiva.

Wash your hands with soap and water: Position patient in front of a good light source. Expose the conjunctiva covering the lower eyelid and sclera of the affected eye by asking the patient to look up as you pull down the lower eyelid with your index finger. Carry out this step at the same time with the unaffected eye if you need to make a comparison.



Next, turn the inside of the upper eyelid of the affected eye outward, exposing the conjunctiva. If you need to make a comparison with the unaffected eye, show the patient how to hold the eyelid of the affected eye in place as you repeat this step on the unaffected eye.

To check the conjunctiva around the iris (colored part of the eye), spread the eyelids of the affected eye as far apart as possible using the thumb to push back the other eyelid. Carry out this step at the same time with the unaffected eye.



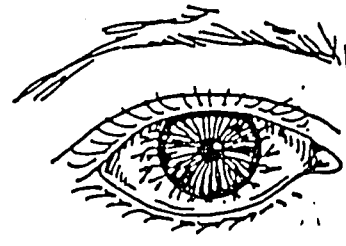
Abnormal Signs of Inflammation: Inflammation of only the upper eyelid in one or both eyes is commonly associated with acute trachoma.

Results

Mild inflammation of the conjunctiva of one eye, equally covering the inside of the eyelids and the sclera, is most commonly associated with a corneal ulcer or a foreign body in the eye if the associated abnormal findings are also present. If you found that a particular part of the conjunctiva and other associated abnormal findings were not present, you would rule out corneal ulcer and foreign body.

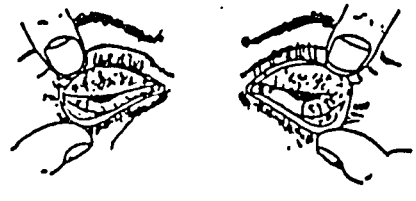
If the above is not present, you may find that the inflammation of the conjunctiva of one or both eyes is more marked on the inside of the upper eyelid. This finding is most commonly associated with acute trachoma if the associated abnormal findings are also present.

If the above is not present, you may find that the inflammation of the conjunctiva of the affected eye is more marked around the iris, and the inflammation decreases as it moves further away from the iris over the sclera, in all directions. This finding is most commonly associated with iritis or glaucoma. Other abnormal findings must be present to differentiate between these problems.



- Abnormal Signs of Inflammation: Inflammation of tl conjunctiva that is most marked around the iris is most commonly associated with iritis or glauco as seen here on the left.

If you find that all of the conjunctiva in only one eye is equally inflamed and no additional physical findings are present, you would suspect conjunctivitis. Equally inflamed conjunctiva involving both eyes is most commonly associated with conjunctivitis, especially when no additional abnormal physical findings are present.



- Abnormal Signs of Inflammation: Equally inflamed conjunctiva involving both eyes is most commonly associated with conjunctivit

THERAPEUTIC AND CONTINUING CARE SKILL

CLEANING THE EYES

Supplies

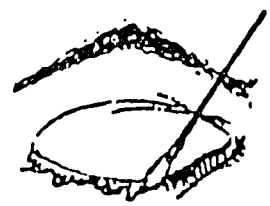
Sterile cotton tipped applicators or sterile 2X2 inch gauze
IV tubing without needle
Bottle of normal saline solution

Purpose

The purpose of the procedure is to remove the crusted pus of a bacterial conjunctivitis from the eyelids and eyelashes causing the eyelids to stick shut. Also the pus must be removed from the inside of the eye before applying an eye medication.

Steps in Procedure

After you have located the supplies you need, wash your hands with soap and water before starting the procedure. Moisten the cotton tipped applicator or sterile gauze with the normal saline. With the patient lying on his back, gently wash away the crust and pus from the eyelids, lashes, and lid margins moving from the nose outward. Continue to repeat this step until the eye can be opened. Once the eye is opened, tilt the patient's head so the side of the eye nearest the ear is downward. Drops of normal saline should then be used to wash out the pus on the inside of the eye. The eye should then be dried with a sterile gauze before an eye medication is added to the eye: These steps are then repeated for the other eye. After both eyes have been cleaned and the medications added, wash your hands with soap and water.



When a patient or a mother of the patient is sent home with eye medications for a bacterial conjunctivitis, they are to be instructed that the eyes are to be washed each time before applying the medication. Small pieces of cloth which have been boiled and dried can be used at home. Each cloth is to be moistened with water which has been boiled. The same procedure is to be followed and the eyes are to be dried before the medication is added to the eyes. The cloth is to be thrown away after it has been used once unless it is boiled and dried again before use. The patient or mother of the patient is to wash their hands with soap and water following the application of the eye medication.

Results

Proper cleaning of the eye will help the eyes to heal faster and is one step in preventing the infection from spreading.

APPLICATION OF EYE OINTMENT OR EYE DROPS TO THE EYE

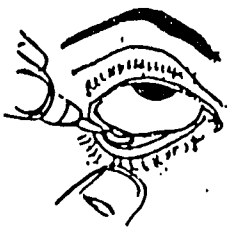
Supplies

Antibiotic eye ointment or liquid eye medication.

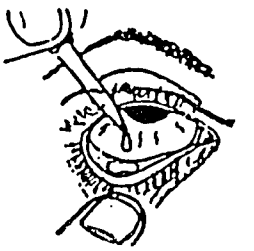
Purpose of Procedure

The purpose of the procedure is to apply an antibiotic eye ointment or liquid eye medication to the eye.

Steps in Procedure



After you have located the supplies you need, wash your hands with soap and water before starting the procedure. If you are treating a patient with a bacterial conjunctivitis, the pus around and in the eye must be removed first. With the patient lying down, pull the lower eyelid downward, exposing the conjunctiva covering the inside of the lower eyelid. With the patient looking upward, add the eye ointment or drops to the conjunctiva.



Either medication should be applied to the area of the conjunctiva which is near the lid margin. Whether you are using an antibiotic eye ointment or liquid eye medication, never let the tip of the container touch the patient's conjunctiva. If the container touches the patient's conjunctiva the container is then contaminated.

As soon as the eye drops or ointment have been applied to the conjunctiva, the lower lid is released.

Results

If the eye drops run out of the eye before the lower lid is released or the ointment slides off the conjunctiva and onto the lid margin after the lower lid has been released, the procedure should be repeated.

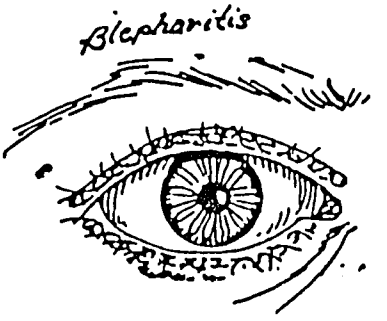
BLEPHARITIS

General Considerations

It is defined as chronic bilateral inflammation of the eye lid margin.

Clinical Picture

The patient usually complains of irritation, burning and itching of eye lid margin. On examination, scales can be seen sticking to eye lashes. The whole lid is tender and swollen.



Management

1. Remove and clean the scales from the eye lashes and lid margins.

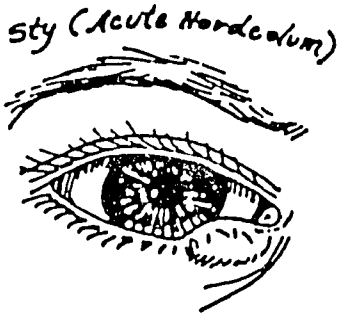
2. Apply antibiotic ointment once daily to eye lid margin.

3. For complications refer immediately.

STY

General Considerations

A sty is defined as a localized abscess of the eye lid margin.



Clinical Picture

Patient complains of pain in the region of the abscess. On examination abscess is found usually on the edge of the eyelid pointing either on the outer or inner side of the eyelid. The area around is swollen and inflamed. The sty is tender to touch.

Management

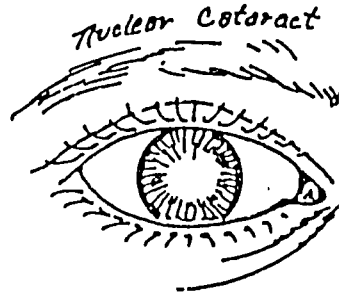
1. Hot compresses 3 times per day

2. Tetracycline eye ointment or other eye antibiotic every 3 hours.

CATARACT

General Considerations

A lens opacity, which is usually bilateral and may be congenital or acquired. It usually occurs in old age, but may be caused by trauma.



Clinical Picture

The patient complains of gradual loss of vision. On examination, pupil looks white in color.

Management

A patient with cataract (suspected) should be referred to the hospital.

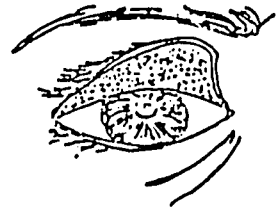
ACUTE TRACHOMA

Introduction

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 intracellular parasite, chlamydia trachomatis. The conjunctiva of the upper eyelid becomes infected.



Epidemiology

Trachoma is found throughout the world. Children are more commonly infected than are adults. The incubation period (from time of contact to beginning of symptoms or signs) is 5 to 12 days. The infection is passed from person to person during close contact, soiled personal articles such as towels, and by flies. No known immunity to this problem develops.

Clinical Picture

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, Trimethoprim Sulpha is the drug of choice.

Prevention

1. Examine other members of the family They are at a high risk of having the same problem.
2. If the child is of school age, examine his school mates. 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.

ANATOMY AND PHYSIOLOGY OF THE EAR

Outer Ear - The outer ear is the part of the ear which can be seen on the outside of the head. The outer ear catches the sound waves and channels these waves into the opening of the ear, the meatus.

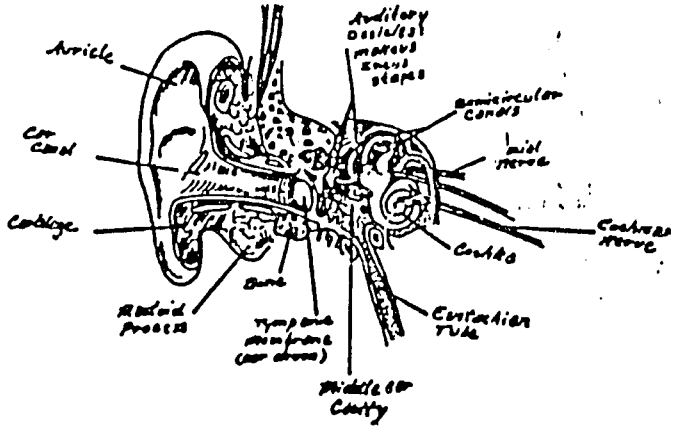
Ear Canal - The ear canal, is the tunnel from the opening or meatus, to the ear drum or tympanic membrane.

Ear Drum- The ear drum, is located at the end of the canal. The ear drum is made of skin which is tightly stretched across the end of the ear canal. As the sound waves pass through the air in the ear canal, they then strike the ear drum, causing the drum to vibrate.

Middle Ear - The middle ear, is the air space behind the ear drum.

Bones of the Middle Ear
There are three small bones in the middle ear. The maleus, is the bone which is attached to the ear drum. The bone which is attached to the maleus is the incus. It is in turn attached to the stapes.

As sound waves cause the ear drum to vibrate, the vibrations are carried through these three bones to the inner ear.



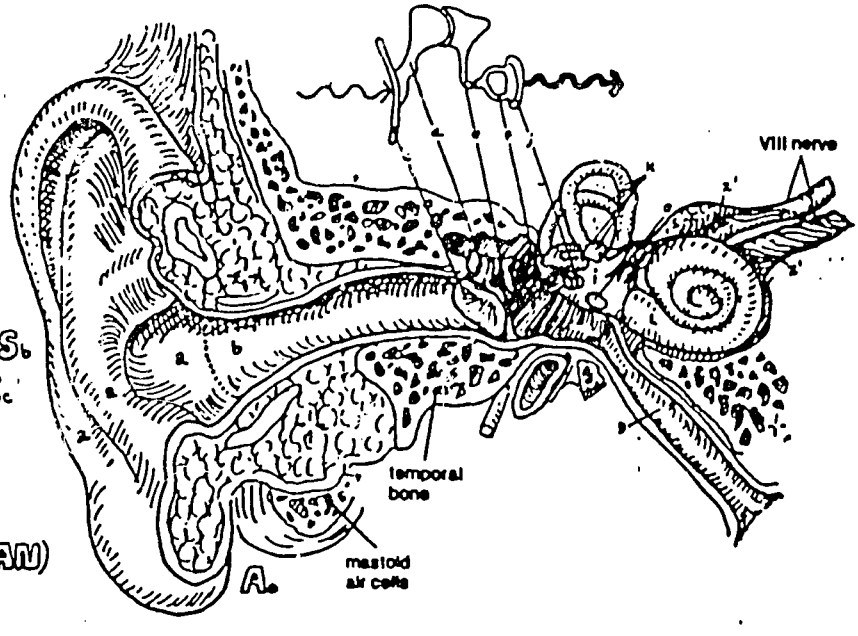
ANATOMY AND PHYSIOLOGY OF THE EAR

Eustachian Tube - The eustachian tube, is between the middle ear and the pharynx (opening at the rear of the nose). Air passes through the eustachian tube to make the pressure in the middle ear equal to the air pressure in the ear canal. This helps to keep the ear drum from rupturing. The eustachian tube also helps to drain fluid from the middle ear. An infection from the throat can travel up these tubes into the middle ear, causing an ear infection.

Inner Ear - The stapes, is attached to the inner ear. The vibrations which are passed from the ear drum through the maleus and incus are than passed on to the inner ear by the stapes. Nerves attached to the inner ear then take the impulses caused by sound in the inner ear on to the brain.

The inner ear also helps you maintain your balance. Many people with severe middle ear infections may feel the room is spinning around because of the effect of the infection on the inner ear. This is called vertigo.

EXTERNAL EAR.
AURICLE.
EXT. AUDITORY MEATUS.
TYMPANIC MEMBRANE.
MIDDLE EAR.
MALLEUS.
INCUS.
STAPES.
AUDITORY (EUSTACHIAN) TUBE.

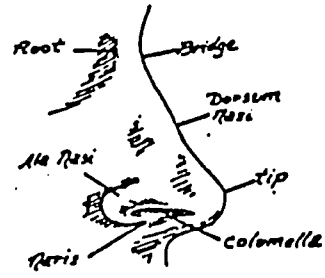


ANATOMY AND PHYSIOLOGY OF THE NOSE AND SINUSES

EXTERNAL NOSE

Bridge - The bridge of the nose is the part of the nose which joins the forehead. Below the bridge lies the nasal bone.

Tip, Nostrils - The end of the nose is the tip. There are two nostrils through which air enters and leaves the nose during respiration.

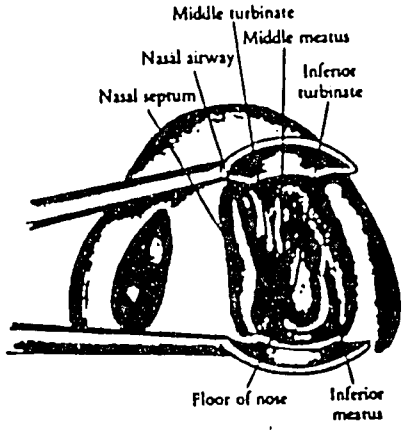


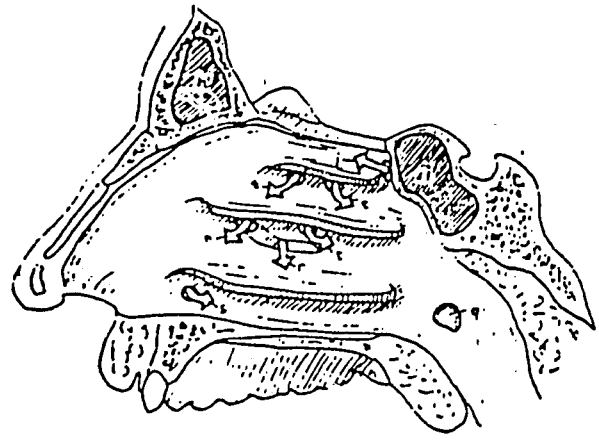
INTERNAL NOSE

Nasal Passages - The nasal passages warm and moisten the air entering the nose.

Septum - The septum is the wall which separates the nostrils.

Turbinates - The superior, middle and inferior turbinates of the nose increase the surface area inside the nose for warming, moistening and cleaning the air. It is above the superior turbinate where the nerves that pass impulses of smell to the brain are located.





B. TECHNIQUES OF EXAMINATION

External Ear

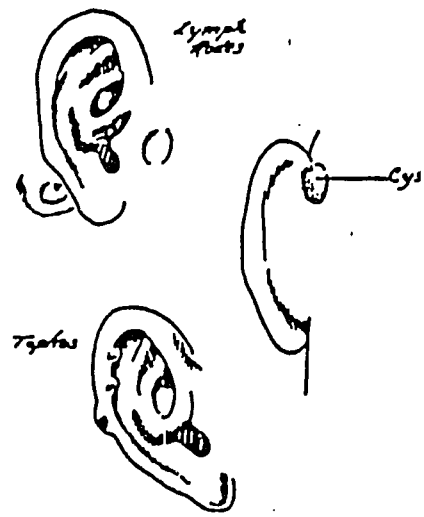
Inspect the auricles for size, shape, symmetry, landmarks, color, and position on the head. Examine the lateral and medial surfaces and surrounding tissue, noting color, presence of deformities, lesions, and nodules. The auricle should have the same color as the facial skin, without moles, cysts or other lesions, deformities, or nodules. No openings or discharge should be present in the preauricular area. Darwin's tubercle, a thickening along the upper ridge of the ear is a normal variation.

Palpate the auricles and mastoid area for tenderness, swelling, or nodules. The consistency of the auricle should be firm, mobile, and without nodules. If folded forward it should readily return to its usual position. Pulling gently on the ear should cause no pain. If pain is present, inflammation of the external auditory canal may be present. Tenderness or swelling in the mastoid area may indicate mastoiditis.

<u>Lymph Nodes:</u> Small nodes are often seen overlying the mastoid process. Lymph node enlargement usually indicates an infectious process involving the ear.

<u>Sebaceous Cysts:</u> Sebaceous cysts are commonly seen behind the ear as noted on the diagram. These can be a normal finding.

<u>Tophus:</u> Tophi are deposits of uric acid crystals characteristic of a type of arthritis called gout.



<u>Otoscopic Examination:</u>

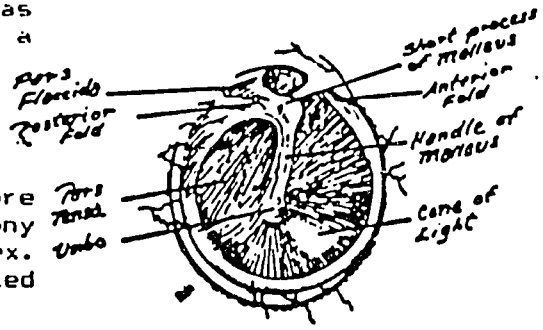
The otoscope is used to inspect the external auditory canal and middle ear. Select the largest size speculum that will fit comfortably in the patient's ear. Remember that the young child often resists otoscopic examination and it is often wise to postpone these procedures until the end of your physical exam.

As you slowly insert the speculum to a depth of 1 to 1.5 cm,

Inspect the auditory canal from the opening to the tympanic membrane, noting discharge, scaling, excessive redness, lesions, foreign bodies, and wax. Touching the bony walls of the auditory canal with the speculum will be painful for the patient. Always be gentle and make the patient feel as comfortable as possible. Expect to see some wax, a uniformly pink color, and hairs in the outer third of the canal. Cerumen may vary in color and texture but should have no odor. No lesions, discharge, or foreign body should be present.

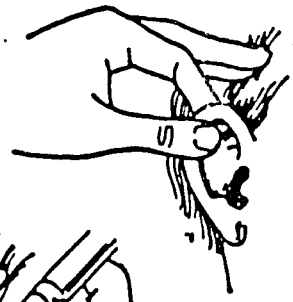
Inspect the tympanic membrane for landmarks, color, contour, and perforations. Vary the direction of the light to see the entire tympanic membrane. The landmarks (umbo, handle of malleus, and light reflex) should be visible. The tympanic membrane should have no perforations and be a translucent pearly gray color.

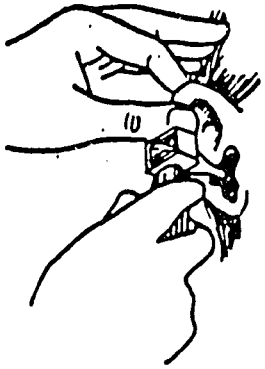
A <u>Bulging Tympanic Membrane</u> usually has lost the bony landmarks and has a distorted light reflex.

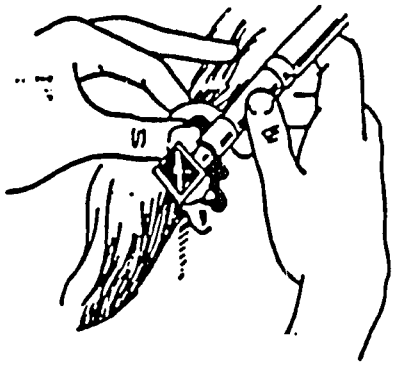


A <u>Retracted Tympanic Membrane</u> is more concave, usually with accentuated bony landmarks and a distored light reflex. This is usually due to a blocked eustachian tube.

<u>Calcific Deposits:</u> Calcific deposits often occur on the eardrum due to past infections. These require no treatment.







CERUMEN (EAR WAX) REMOVAL

Removal of cerumen is often required to see the tympanic membrane. If the patient has decreased hearing from cerumen impaction, it may also have a therapeutic effect.

1. Mix one glass of clean, warm water with 1/2 teaspoon salt.

2. Let patient hold kidney tray below his ear.

3. Draw outer ear gently upwards and backwards to straighten the ear canal (downwards and backwards in children under 1 year). Tell patient you are going to put water into his ear. Reassure him.

4. Using the large syringe, inject water under moderate pressure into the outer ear canal (the syringe tip must not occude the canal; water injection in this instance would result in damage to the ear drum.) Repeat until cerumen washes out and ear drum can be seen. You may have to dry the ear canal with small amounts of absorbent paper.

5. If irrigation is not successful, dissolve the cerumen:

   a) With patient lying so that affected ear is turned upwards, instill 1 ml of glycerin.

   b) After 10 minutes, attempt to remove dissolved cerumen using above irrigation technique.

   c) If still unsucessful, instruct the patient about instilling the drops himself, every night for 2 or 3 days. Then have him return to the clinic for removal of wax.

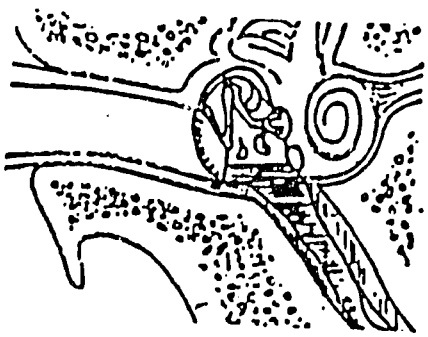
OTITIS MEDIA

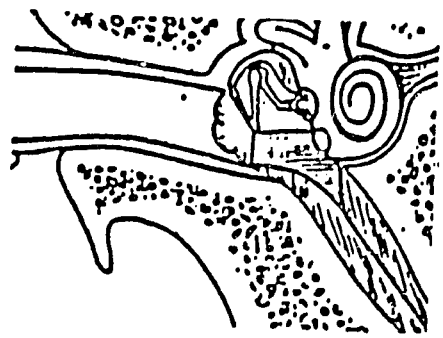
Acute otitis media is an infecion of the middle ear. It is the most common ear problem you will see among children.

Cause - Otitis media is caused by organisms, entering the middle ear by traveling along the mucous memberane lining the eustachian tube. Acute otitis media is a secondary complication of an upper respiratory infection. The mucosa of the middle ear become inflamed and thickened. The middle ear starts to fill with pus. If the pus cannot drain down the eustachian tube, the pressure starts to build up inside the middle ear and the eardrum starts to bulge and causes pain.

Otitis media is a common problem that is found among children worldwide. Otitis media is not contagious. It is often a complication of a common cold. When otitis media is chronic, there may be perforation of the eardrum. Pus will drain from the ear canal.

Chronic Otitis Media may lead to loss of hearing.





Signs and Symptoms

- fever
- ear pain
- may have discharge from ear
- no pain with gentle pulling of ear posteriorly
- may have dizziness / vertigo

Otoscope

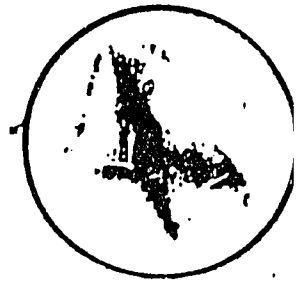
- Tympanic membrane is red, inflamed, bulging.
- may have perforation with discharge.

Course

If the problem is not recognized in the early acute stage, the build-up of pus in the middle ear causes the drum to swell, soften and eventually rupture. When the eardrum ruptures, the pain and fever usually decreases. If the problem still goes untreated, a chronic otitis media can develop.

Complications

Chronic otitis media is a complication of acute otitis media and is very difficult to treat. The hearing loss that results in a child is a very serious problem because of the difficulties which result in the child's development. Another complication is the spread of the infection to the air spaces of the mastoid bone, causing mastoiditis. Meningitis can also be a complication if the infection spreads to the brain. Both of these complications are more common in children and can cause permanent damage or death.



Treatment

1. Antibiotics.
   - Children < 5 years:
     Trimethoprim- Sulfa normal dose for 7 days.
   - Patients > 5 years:
     Penicillin normal dose for 7 days
2. Acetylsalicylic acid or Paracetamol for 3 days.

3. Return to clinic in 10 days:
   - If draining or persistent pain - change antibiotic to ampicillin normal dose, 1 week.
   - If second treatment fails to clear up the discharge, do not treat again.
   - Encourage good nutrition.

4. Never irrigate an ear if pus is present in the ear canal. You may damage the middle ear.

   If pus is draining from the ear(s), leave it alone. The body will close the perforation and the pus will go away by itself, although you may need to remove some debris later on re-examination.

   Antibiotic ear drops do no good in otitis media.

5. If ear pain increases when the ear is gently pulled posteriorly and you cannot see the ear drum, treat for both otitis media and otitis externa (see next page).

OTITIS EXTERNA

Otitis externa is usually the result of a bacterial or fungal infection in the ear. It can also be caused by allergic reactions to earings, cosmetics, etc. Hot weather and moisture in the ear (as from swimming) are very important environmental factors related to otitis externa.

Signs and Symptoms

- itching and mild pain in the ear canal
- pain increased when ear is gently pulled posteriorly
- may have a slight hearing loss
- may have watery green discharge or a thick yellow-white discharge
- may have low grade fever

Otoscope

- Insertion of Otoscope is very painful, tympanic membrane is normal, outer ear canal is red.

Treatment

1. Instill gentian violet into ear. Teach the patient to do the same twice a day for 1 week.
2. If canal is swollen and narrow:
   a) Cut small strip (1 cm wide, 5 cm long) of gauze or dressing, soak with gentian violet and insert gently with forceps into outer ear canal.
   b) Follow up in one day - repeat until canal is open - then have the patient apply gentian violet twice a day for 5 days.
3. Acetylsalicylic acid or Paracetamol for 3 days.
4. Instruct patient: do not get the ears wet; be careful when washing; no swimming for 2 weeks.

DEAFNESS AND DECREASED HEARING

History- When a patient presents with altered hearing, consider the following causes:

1. Chronic ear infection with damage to ear drum.

2. Ear drum rupture:

   a) Loud noises (sudden pain and hearing loss).
   b) Sharp objects in ear (especially trying to remove cerumen, bleeding often present).

3. Cerumen impaction (unable to see any of the ear drum).

4. Streptomycin injections with nerve damage.

Examination using otoscope:

- Inspect for ear drum rupture, cerumen impaction.

Treatment

1. If ruptured ear drum - decreased hearing from rupture of the ear drum will usually improve over time without treatment. In these cases, do not irrigate the ear (even if you see some blood) and advise patient to keep ear dry until, on follow-up exam, the hole has closed (generally < 1 month). Treat with antibiotics if there is purulent discharge.

   - A hearing aid, for chronic decreased hearing, is only sometimes effective; evaluation in Pakistan is possible.

2. Cerumen impaction. If the ear canal is full of wax (unable to see ear drum), remove cerumen.

3. Treat infection if present.

DIAGNOSTIC SKILL

EXAMINATION OF A CHILD FOR HEARING LOSS

Supplies

No specific supplies are needed.

Procedure

When examining an older child, turn his head away from you, so he cannot see from your lip movements what you are saying. Put your finger over the meatus so as to make a small noise so the child will not be able to hear what you are saying with this ear. Say a few words into the ear you are testing and ask the child to repeat back to you each word you have said. Do this several times, speaking more quietly and moving further away from the ear you are testing each time. When you have tested a few normal children in this manner, you will be able to recognize when a child you are testing has had a hearing loss.

Results

A normal child should be able to hear a quiet whisper about an arms length away from his ear. Use the length of the outstretched arm of which the index finger is plugging the ear not being tested as your maximum distance away from the ear being tested. Repeat this test on the other ear.

When examining a baby or young child which cannot yet talk, crumple a sheet of paper into a ball, or rattle something to the side of the head of the ear being tested and out of sight of the child. If the child can hear the noise which is being made, he will turn his head or eyes in the direction of the noise.

Any child which you know or suspect has had a hearing loss is to be referred to a physician for further examination.

E.N.T. PROBLEMS

1. EAR PAIN, EAR DISCHARGE

A. Ear pain with discharge

- Otitis media
- Otitis externa

Gently pull the ear posteriorly:

If ear pain increases	- otitis externa
If ear pain does not increase	- otitis media

B. Ear pain with no discharge

- Early otitis media
- Early otitis externa
- Tooth or throat extraction

Use otoscope, if you find:

Tympanic membrane red and bulging	- otitis media
Ear canal red, painful	- otitis externa
Tympanic membrane and ear canal normal	-Evaluate for tooth problems or throat infection

MUMPS

General Considerations (See Infectious Disease)

Mumps is an infection caused by a virus which affects the parotid glands located at the angle of the jaw. Mumps is a common disease of children and rarely affects adults (they are immune because they were exposed to or had mumps as a child).

Clinical Picture

Painful chewing is followed by swelling and tenderness at the angle of the jaw. Usually the angle can no longer be felt. The ear lobe is usually lifted upwards and out. Eating citrus fruit, or anything sour, increases the pain. Symptoms are completely gone in 5 - 7 days.

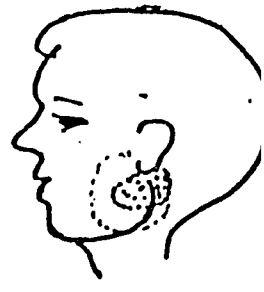
Complications

Adult men with mumps may develop tenderness and swelling of the testicles (orchitis) which may occasionally lead to sterility.

Rarely, a child with mumps develops meningitis.

Treatment

Rest and increased fluids. Isolation is not helpful.



X. WOMEN CARE (ANTENATAL, NATAL, POSTNATAL & NEONATAL.

Objectives: At the end of this session participants would be able:

1) To know the major functions of prenatal care, which are:

A - The promotion of Health during pregnancy through advice and educational activities.

B - The screening identification and referral if necessary of women with risk factors.

C - The monitoring of health throughout pregnancy in order to detect & deal with problems if & then they occur

D - To understand common laboratory tests.

2) To understand some common problems that can occur which can undermine the effectiveness of prenatal care

3) To understand a normal delivery.

4) To understand an abnormal delivery (Haemorrhagia, early rupture of amniotic cavity uterus rupture and lacerations).

5) To understand normal puerperium.

6) To understand abnormal puerperium.

7) To understand a newborn baby examination.

8) To understand common gynecological disorder (normal menstrual cycle, common vaginal disorder, infertility and family planning).

2. Skill: To encourage the participants to the importance of prenatal, Natal, Postnatal and Neonatal cares)
To encourage them to the importance of infertility & family planning.

3. Activities: To explain the importance of prenatal, postnatal, Natal, Neonatal cares by the using of posters and slides.

To explain all the details of said cares.
To explain and demonstrate common laboratory tests
To practice in clinic
To explain the role of family planning.
To explain the main causes of infertility.

4. Duration: Two days.

5. Reference:

6. Teaching Materials: Handouts, posters, slides, Transparnseries

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Women Health Care (Prenatal-Natal-Postnatal)

Objectives:

- To know Prenatal Health Care. Which includes the following parts:

1. Improving mother's health during pregnancy through health education.
2. Distinction and referral of the expectant women with risk factor.
3. Assessing mother's health during pregnancy, detecting and discussing the expected problems.

   - Understanding routine tests of pregnancy.
   - Gaining information about normal delivery.
   - Gaining information about abnormal delivery (bleeding, premature rupture of the amnutic sack, uterine rupture and lacerations.)

   - Understanding a normal pueperium.
   - understanding an abnormal pueperium.
   - Understanding the method of examining a new-born infant.
   - understanding the common genital disorders (normal-menstruation, common vaginal problems, infertility and family planning)

Skills:

Notifying the participants of the importance of prenatal, natal and postnatal care and family planning.

Activities:

1. Explaining prenatal, natal and postnatal health care and care of a new-born infant.
2. Demonstrating the routine tests of pregnancy.
3. Explanations about the main causes of infertility and the role of family planning.
4. Participation in practical works.

Time for the subject : 2 days

Teaching materials : Notes, slides, posters.

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Natal care:

Pregnancy:

A fertilized ovum (ovum + sperm) called zygote develops, first, into embryo and eventually into a full-term fetus. The duration of a pregnancy is as long as 280 days from the first day of menstruation and 266 days from the day of last sexual intercourse.

Signs of Pregnancy:

- Amenorrhea (absence of monthly period)
- Morning sickness i.e. nausea and vomiting especially in the morning, intensifying during the second and third months of pregnancy.
- Enlargement of the breasts.
- Urinary frequency.
- Inflation of the belly (abdomen)
- Dark skin blotches (pigmentation) of the face, breasts and abdomen.
- Feeling the fetal movements between the 18th and 20th weeks.

Prenatal Care:

Prenatal care means the mother's health care before delivery. The probable birth date of the infant can be calculated as follows: Subtract three months from the date of the first day of the last monthly period. Then, add seven days to the result.

For example:

The first day of the last monthly period was March 8th. After subtracting three months from the aforementioned date. We will get the date December 8th. By adding seven days to the latter we can find the probable birth date (15th of next December).

As the time progresses, the fetus grows larger and larger inside the abdomen. The approximate fetal age (by months) can be estimated through uterine and abdominal palpation.

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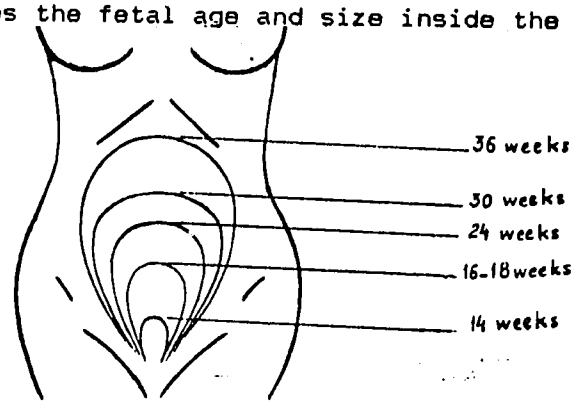
This figure indicates the fetal age and size inside the uterus.



(Fig 1) Approximate fundal height with changing gestation.

A pregnant woman should be monthly checked for her health condition and blood pressure. An expectant women should be encouraged to take more protein and energetic foods (in particular, dairy products, vegetables and fruits) as well as plenty of sanitary water. However, she should avoid using mush salt, especially during the last months of pregnancy. She may use iodine-salt instead. If time permits, more information related to a proper diet should be given to her.

Physical excersises during pregnancy have been proven beneficial, but exhaustion should be avoided. In case of need. She may rest more, if not immunized against tetanus, 0.5 mg TT (Tetanus Toxoid) IM should be given to her. A second shot of the same amount (0.5md) IM should be administered in the eight month of pregnancy. Thus, both the mother and her baby can be protected from tetanus

In case of high blood pressure or any of the following risk factors, the mother should be referred to the hospital as soon as possible.

Risk Factors during pregnancy
Vaginal bleeding
Swollen face, fingers or malleolus.
Severe headache, visual disorders, epigastric pains, frequent vomiting.
Fever, tremor and chilling.

A. Bleeding during pregnancy:

Various causes have been offered for the bleeding occurring during the first months of pregnancy. Though, it is usually caused by the following:

Abortion mole hydatidiform, sometimes ectopic pregnancy, cervical and vaginal erosions and ulcers

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ABORTIONS:

Abortion is defined as an expulsion from the uterus of the products of conception before the sixth months of the pregnancy.

Different types of abortion are as follows:

1.Threatened abortion:It s future is unknown,bleeding after amenorrhea is it's predominant symptoms

2.Incomplete abortion:Fetus is expelled,while a part of placenta and amniotic membrane remains in the uterine cavity.Sever vaginal bleeding (sometimes in the form of cloths) is an important symptom.

3.Complete abortion:Fetus and placenta are completely expelled.

4.Missed abortion:Death of the fetus or embryo in the uterus.

5.Habitual abortion:Happens frequently.

6.Septic abortion:Infection is responsible.In addition to signs and symptoms of infections ,smelly sanguine discharge,sever fever,pain and tenderness of the lower part of the abdomen also exist.For treatment refer to doctor.

ECTOPIC PREGNANCY:

It can be a cause of vaginal bleeding in the early pregnancy,which some times occurs in the form of the clots

In this case the fertilized ovum is implanted out side the uterine cavity in the fallopian tube,cervix,uterine fundus,ovary or abdominal cavity,and grows there.The most usual site for an ectopic pregnancy is the fallopian tube(95 %).Since the fallopian tube is not a suitable place for fetal growth ,the more the fetus grows the thinner the tube becomes.eventually the fallopian tube ruptures and causes an acute abdominal case.The sign and symptoms of an ectopic conception ,implanted in cervix or uterine corn resemble those of incomplete abortion.

Signs and Symptoms of a Ruptured Fallopian Tube:

[illegible] pain in the lower part of the abdomen.It may be severe [illegible] doesn't always start suddenly low back pain may be present.Some [illegible] abnormal vaginal bleeding associates with [illegible] symptoms which suggests presence of a sensitive [illegible] full case in the pelvis.collapse and shock may happen.

Treatment:

[illegible] should be referred to the hospital as soon as possible [illegible] enroute the hospital sterile intravenous solutionscan be [illegible] and it should be managed

MOLE HYDATIDIFORM:

A condition resulting from abnormal trophoblastic proliferation, which may lead to a cancer

CHORIONIC CARCINOMA OR CHORIONIC EPITHELIOMA:

[illegible] cases the uterine sizes bigger with relation to the [illegible] but the fetal limbs are not palpable.the fetal heart [illegible] is negative and the uterus feels soft.

[illegible] generally [illegible] luteal cyst

[illegible] symptom which from time to time [illegible] a definite diagnosis can be reached through [illegible] hysterography and ultrasonography.

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2 Vaginal and cervical erosions may cause a mild bleeding which is [illegible] risky.

B ANTEPARTUM BLEEDING (AFTER THE SIXTH MONTH)

[illegible]

[illegible] previa:Placenta is implanted in the lower pole of the [illegible] There are three degrees of placenta previa:

[illegible] placenta previa. The placenta completely covers the internal [illegible]

[illegible] placenta previa. The placenta partially covers the os and [illegible] the lower wall

[illegible] placenta previa:

[illegible] Painless bright red bleeding with a sudden start and no [illegible]

[illegible] is [illegible] in the placenta previa if the fetus [illegible] The patient should be in complete rest and under [illegible] bleeding should be referred to [illegible] as possible.

[illegible] Premature separation of placenta):

[illegible] in the form of clots)

[illegible] strength includes

[illegible]

[illegible] Internal hemorrhage

[illegible] This [illegible] type

[illegible] external hemorrhage) and [illegible] and pain. Blood examination for Hb should be [illegible] internal haemorrhge. Internal [illegible] lead to anemia, low blood [illegible] cause uterine necrosis [illegible] lifethreatining [illegible] the beginig.

[illegible] IN PREGNANCY.

[illegible] While getting up in the morning the [illegible] and possibly vomiting or just [illegible] These may sometimes result in [illegible]

[illegible] this state is common [illegible] She should be encouraged to [illegible] digested food as well as some sweets and milk [illegible] at the desired time.

[illegible] symptoms disappear after the 14 weeks

HEART BURN

[illegible] a sensation of burning in the middle part of the [illegible] the presence of gastric juice in the esophagus. The relaxed canals affected by progesterone hormone allows a reflexive [illegible] the esophagus. The patient should be encouraged to [illegible] easily digested foods, milk, water, liquid and antacid drugs. Spicy foods should be avoided. Constipation is one of

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the common problems in pregnant women,which results from the progesterone's effect on the intestinal muscles.
In this case no medical treatment is needed.Encourage the patient to take adequate amounts of fruits,vegetables and liquids.

VARICOSE VEIN AND HEMORRHOID:
These terms refer to dilatation and fullness of the superficial veins of the lower limbs,vagina and rectum.Mild cases are harmless.However painful and much swollen varicose which may cause ulceration should be referred to a doctor.
Management:Ask the patient to lie in flat position with her legs upper than the rest of the body.Since the dilated veins can easily rupture and cause bleeding these deliveries should be conducted in the hospital.Constipation should be prevented.Cold applications have been proven beneficial.

VERTIGO AND FAINT:
It may be caused by Anemia,cardiac failure,sudden changes of the bodily position (e.g from lying to sitting up) and standing in the kitchen in the crowded place for a long time.However the most dangerous cases of faint is caused by a ruptured ectopic pregnancy.
Management:The patient should be in complete rest.Her blood pressure should be checked and her anemia treated.

GLOSSITIS AND GINGIVITIS:
It's common among the pregnant women with low economic status.It results from vitamins deficiency (in particular vit B),and lack of calcium.Poor personal hygiene is another cause
Management:Observing personal hygiene and taking foods rich in vitamins and calcium

ITCHING:
[illegible] Stretch marks,poor personal hygiene,cold (low temperature),heat rashes or any other skin disease
Management:The patient should first wash her body properly and then apply some calamine lotion or talcum powder to her skin.
Vaginal itching refer to the relevant chapter.

LUMBAGO AND ARTHRALGIA:
These are common among the multiparum women.Improper position is [illegible]
Management:Taking enough rest,in a comfortable position.Avoiding walking [illegible] with high heel.

STRESS URINARY INCONTINENCE:
[illegible]
[illegible] pressed by a pregnant uterus which is still in the [illegible] during the first 12 weeks of pregnancy and by the fetal head [illegible] fixed yet during the last weeks of pregnancy.

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SLEEPLESSNESS:
It's common especially in late pregnancy.

CRAMP (PAINFUL MUSCULAR CONTRACTION):
It's usually seen in the lower limbs,due to lack of vit B,calcium and chloride.For treatment ask the patient to take additional vit B,Calcium and Cl.

HYPEREMESIS GRAVIDARUM (THE PERNICIOUS VOMITING OF PREGNANCY):
It is severe vomiting occurring during the first trimester.She may have vomiting all day long.Last vomit contains bile
Thus the stomach and duodenum completely empty or she may have a sensation of nausea and anorexia the whole day.Both cases result in malnutrition and weakness of the patient.
Causes
The cause is unknown in 50% of the patients.However mental disorders are thought to be the cause in most women especially in undesirable pregnancies
Hyperemesis gravidarum happens more often in educated and sensitive women.Also in those with multi parity,mole pregnancy,hydramniosis,hepatitis and glomerulonephritis.
Signs and Symptoms:
Nutritional above
Management
Severe cases should be referred to the hospital.Plenty of liquids should be given to her (according to the amounts lost)
Oral liquid should be avoided unless the vomiting is controlled by anti vomiting drugs.The patient should be in complete bed rest.Other possible causes should be detected and treated.

TOXEMIA OF PREGNANCY.
It can occur at any age in women.It's more often in primipara women with parity.It is divided into two groups:eclampsia and pre eclampsia.
Eclampsia has two forms i.e mild and severe
Mild eclampsia is characterized by hypertension (usually mild) with Edema may or may not exist
Severe eclampsia:The above mentioned signs and symptoms are intensified and more Additionally headache,visual disturbances and epigastric pain are present.If convulsion associates these symptoms it is called eclampsia,which is a dangerous condition and may result in death of both the mother and her baby.
If at the sign and symptoms of mild pre eclampsia appear the patient should be notified of the condition.She should be completely bed rest,take plenty of water and less salt in her diet.Hypertension and proteinuria should be treated If it still persists the patient should be referred to an equipped health center if possible.

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NATAL CARE
NORMAL DELIVERY·
There are three crucial factors in a delivery:
1.Fetus
2.Birth canal (pelvis).
3.Placenta and membrane.

The explosion of the baby:

The first stage of the labor:
Intermittent uterine contractions with regular intervals cause labor pains especially in the waist and low back.
as soon as the pains begin some vaginal discharges (containing mucus and blood) may appear i,e show of blood.
As labor progresses the period of relaxation between contractions shorten and become irregular.

In early labor pains the pregnant women should
The so called first stage of labor begins with labor pain and ends when the cervix is fully dilated.This stage usually last 10-20 hours in the first pregnancy ,but often only a few minutes after many pregnancies.

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THE SECOND STAGE OF LABOR:

This stage lasts from the full dilatation of the cervix until the expulsion of the baby.

Membrane or the amniotic sack, which contains the baby, may rupture in the first or second stage of labor Thus, some liquid (amniotic fluid) flows out of the vagina. Meanwhile, the mother feels the strains forcing the baby outward.

The mother should be positioned on her back or one side, with her knees drawn up and with her hand holding the tights. She should synchronize her straining downward with the labor pain; and avoid straining during the intervals

Perineum should be cleaned by an antiseptic solution. Once the expulsion begins the fetal head continues to dilate the vagina with each uterine contraction from above.

While the mother is hying on her back and the fetal head is expelled as much as 2-3 inches, "Episiotomy" may be needed (to prevent serious perineal laceration). That is to make a cut with scissors after a local perineal anesthesia.

Massaging the perineal area, while the fetal head is dilating it, may cause a relaxation of the perineal skin and muscles.

If the mother is rotated to her left side and someone is keeping her right leg up at the time of labor, episiotomy may not be needed (even in primipara)

When most part of the fetal head is viewed, by placing a hand under it one can protect the fetal head, while being expelled, and facilitate the labor process Avoid pulling the fetal head. Ask the mother to strain downward Don't let the fetal head hang. Rapid expulsion of the fetal head may result perineal laceration.

Once the fetal head is completely expelled make sure that the umbilical cord has not twisted around the fetal neck. If it has, try to remove it by passing it over the fetal head. If no to simply possible, clamp it at two points, using two hemostats. Then cut it off at the point between two clamps; let the fetal head rotate spontaneously to one side

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Then tell the mother to strain. Hold the fetal head gently and move it slightly towards the back of the mother, so that his/her anterior shoulder will be expelled. Then support the fetal head and back with one hand and raise them smoothly towards the mother's abdomen.

Clean the baby's nose and mouth by means of suction (if available). Otherwise, you may use a sterile piece of gauze or cloth and your finger instead.

Place the baby lower than the mother's body until the pulsation of umbilical cord disappear; Then, clamp the cord (at a distance of 4 inches from the baby's body) with two axtery forcepses; or you may tie it with strong and sterile thread. Cut the cord between two ties, using sterile scissors to keep the baby warm, tell the mother to place him/her close to her body; or you may wrap the baby in a blanket.

The Third Stage of labor:

This stage lasts from the expulsion of the baby until the complete expulsion of the placenta. After the separation of placenta from the uterus, the uterus contracts to a hard small size. Pressing the uterus gently through abdominal wall and pulling the umbilical cord will cause the expulsion of placenta. Don't pull the umbilical cord hard, otherwise the laceration of membrane will cause bleeding and infection.

Once the placenta is totally expelled, give a gently abdominal massage to the mother so that the uterus contracts more. Petocin (10 unit IM) should be injected (if available).

Then stitch the vaginal lacerations and the incision of episiotomy (using catgut chromic 2/0 or 3/0). Start stitching from the distal ends of the cut and lacerations, moving towards vagina.

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Postpartum Bleeding:

Sometime uterine bleeding continues intensely and in rather large quantity after labor. While, naturally it is supposed to be mild and very little. Postpartum uterine bleeding is a pernicious case. If there is no specific cause, massage the uterus through abdominal wall until it is fully contracted. Meanwhile, giving Pitocin and Ergotamine is beneficial.

But if one of the following causes is responsible for postpartum bleeding, refer the patient to the hospital as soon as possible.

Atony of uterus due to remains of placenta and membranae, or rupture of uterus, cervix, or birth canal. Hydramnius, twinning, hydrocephalus, anesthesia, and abnormal fetus (bigger than normal). In these circumstances the uterus is unable to contract properly. Therefore, the bleeding continues intensely, which requires an immediate treatment.

Premature rupture of Membrane:

This is an early spontaneous rupture of the membrane before the start of labor, sometimes followed by labor pains and a premature labor. Thus, the prenatal mortality rate rises. If the labor pains don't occur, the uterus is most likely to be infected. Thus, the infection of the uterine cavity and its contents may result in the baby's death. Prolapse of umbilical cord is not unusual in this case.

The real cause is unknown. Infection of the membrane is thought to be responsible. However, it doesn't always result in premature rupture of the membranae. In some other cases the membrane enters the cervix. In early pregnancy (due to the causes mentioned below) and ruptures in mid-pregnancy; consequently, results in abortion or premature labor.

Causes: Multiparity, polyhydramnios, malpresentation e.g transverse.

Incompetence of the internal cervical as due to : surgical treatments such as dilatation of cervix to terminate a pregnancy or to treat dysmenorrhea, and labor injuries.

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Hydrorrhea Gravidarum:

It is defined as a watery discharge from the vagina during pregnancy. The cause is unknown. Usually the membranous discharges occurs, when the cervical incompetence exists.

Postnatal care:

General Measures:

In bleeding cases the uterus should be 'ept contracted through message. Perineum should be covered with a clean piece of cloth. Mild bleeding case is normal.

To relieve the pain, apply damp and hot applications to the episiotomy site and perineum (2-3 times/day)
The mother's nipples should be kept clean.
The mother should get up and about six hours after labor.
Take her temperature 4 times a day. High temperature may imply puerperal infections.

Cervical lacerations

Trivial cervical erosions and laceration may not cause any sign and symptom.

The causes of severe cervical laceration are as follows:

- Sudden expulsion of the fetus.
- Applying obstetrical forceps.
- Pulling the fetal head when the cervix is not fully dilated.
- Breech presentation.
- Previous laceration's scar (relaceration of the same part).

In deep lacerations a continuous bleeding will exist after labor (after the third stage of labor).

Management: Suture the lacerations, observing local anesthesia and aseptic conditions.

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Vaginal and Perineal Erosions and lacerations:

These occur in three degrees:
First degree : Mucous membrane + skin.
Second degree : Mucous membrane + skin + Perineal muscles.
Third degree : Mucous membrane + skin + External and Internal sphincteral muscles.
Management : Anesthesia and suture.
During the second stage of labor, the perineum should be seriously taken care of.

Subsequent Care:

Perineum should be clean washed and dried daily. Constipation should be prevented. Encourage the patient to take plenty of water and to wash the area close to her sex organ, frequently, after each urination.

Uterine Rupture

It occur during labor or in the last weeks of pregnancy, may due to previous cesarean section, laceration of previous uterine scars or direct traumas of uterus.

During labor:

Obstruction of labor: Abnormal presentations, rotation of the fetus inside the uterus, taking the placenta out of the uterus by hand (e.g. in highly adhesive forms of placenta), using wrong methods, hydrocephalus (undiagnosed).

The uterine walls in multiparas and in those who have experienced uterine operations are easily ruptured.

Signs & Symptoms:

Stoppage of uterine contractions, intense abdominal pains, changing of the general condition of the patient and vaginal bleeding.

Complete uterine rupture causes severe pain and shock; the whole contents of the uterus is expelled into the abdominal cavity. In some cases the signs and symptoms are not obvious (concealed ruptures).

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THE PUERPERIUM

It is defined as the period or state of the returning of the pelvic organs to their previous state after child birth. Normally it lasts for approximately six weeks. However some organs need more time to return to their normal position thoroughly.

Management:
1. Prevention of infection: Observing hygienic condition.
2. The time of getting up and about: It varies according to the types of delivery (i.e normal and abnormal deliveries).
Normally the mother is supposed to be able to get out of bed and walk after six hours following the child birth.
3. Temperature and pulse rate: Normally the temperature remains [illegible] until the 24th hours following the child [illegible]. A high temperature after the 24th-48th hours may [illegible] the following infections: infection of the urinary [illegible] breasts etc and vascular thrombosis.

4. THE FIRST BREAST FEEDING:

The [illegible] mammary glandular cells are hypertrophic during pregnancy. The secretion of milk doesn't start until the child [illegible] because only when the baby starts sucking some nervous [illegible] sent from the nipples to the pituitary gland [illegible] stimulate the secretion of the prolactin [illegible]. [illegible] on the breast to promote the [illegible] of milk. The fluid that is secreted the first 3-4 days [illegible] called colostrum. Colostrum contains [illegible]. The [illegible] natural immunity to the baby against [illegible].

5. INVOLUTION OF THE UTERUS:

[illegible] after birth the uterine fundus settles at a distance of 4 cm [illegible] above the symphysis pubis. After ten days [illegible] (gradually and slowly).
[illegible] infection remains of placenta and uterine [illegible] scattered.

URINARY RETENTION:

[illegible] from injuries and [illegible] of the labia, urethra [illegible] anesthesia
[illegible] a suitable environment for the infectious [illegible] the bladder is full try to empty it through pressing it [illegible] finger. Secondly ask the patient to immerse her vulva in [illegible] water. Catheterization may be needed in some cases. If [illegible] leave the catheter for a period of time inside the [illegible]

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URINARY INCONTINENCE:

It may result from vesicone-vaginal fistula made by obstetrical instruments while conducting a delivery or so.

URINARY TRACT INFECTION:

It is caused by either the infection entering the body through catheter of post partum infections.

CONSTIPATION:

Causes: Diet,perineal stitches,episiotomy.

LOCHIA:

Vaginal discharge during the first week or two after childbirth.It is secreted from the placental area.The color is red for the first 4 days,pink for the subsequent 10 days and then gradually turns yellow.Remaining of the red color suggests placental retention remains of placenta inside the uterus or infection.

SLEEPLESSNESS AND DISTRESS OF THE MOTHER:

Causes:Uneasiness of the baby,enlargement of the breasts,painful breasts,perineal pains due to the stitches etc

[illegible] the mother the cause should be detected and treated.

[illegible] The mother [illegible] should be given to her In addition [illegible] diet in protein and vitamins are also necessary.

[illegible] of breast: Already explained

[illegible] physical exercises: Strengthen the abdomeninal muscles.

[illegible] should be frequently done.

[illegible] should be adopted

LACTATION.

[illegible] physiological [illegible] puerperium.All though [illegible] of estrogen and progesterone [illegible] growth of mammary gland and ductal system of the breast [illegible] breasts grow larger

[illegible] is produced in the 16th week of pregnancy .Actually the [illegible] of milk starts on the second day following the child [illegible]

[illegible] as the oestrogen's concentration in blood falls off,the [illegible] level rises the latter is inhibited by estrogen during [illegible] and only after birth starts acting.

[illegible] of milk varies from person to person .Most often the [illegible] of milk [illegible] related to the baby's need for it .

[illegible] strong baby [illegible] the breasts earlier causes an [illegible] secretion of milk

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Usually a proper breast feeding is attributed to the mother's mental and bodily health,observing a proper method of breast feeding and regular emptying of the breasts.The onset of the menstrual period causes a reduction in both the quantity and quality of the milk.However it can't hinder breast feeding.Some medicines are excreted from the body through milk This fact should be considered while prescribing drugs to the mothers who are breast feeding their babies.

PUERPERAL PYREXIA·

Causes:
1.Genital tract infection.
2.Urinary tract infection.
3.Breast's infection
4.Thrombophlebitis.
5.Respiratory tract infection.

GENITAL TRACT INFECTION:

A high temperature after the first 24 hours following a child birth is called Puerperal infection.
Causes: Infection of the uterus ,uterine cavity,cervical injuries and injuries of the birth canal .Some times the in active vaginal [illegible] organism turn active and causes an infection from [illegible] While in some other cases the infection is transmitted from out side i.e through contaminated hands ,instruments and droplets (e.g the examiner has got a cold,sore throat etc).
Signs and symptoms:
[illegible] is a prodromal symptom.It starts suddenly and reaches the [illegible] first [illegible] days It is associated with tremor all [illegible] Pulse rate increases parallel to the temperature.Sensation of [illegible] pain [illegible] Spreading [illegible] the pelvic peritoneum causes severe pain and [illegible] in the lower part of the abdomen.It even may result in [illegible] peritonitis.
[illegible]
[illegible] temperature after a child birth or an abortion
[illegible] Examination:
[illegible] be examined [illegible] Vaginal pussy [illegible] should be sent for laboratory tests.
[illegible]
[illegible] labor vaginal discharges should be examined .If necessary [illegible] prevent trauma during labor Observation of hygienic [illegible] the patient.

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Inspect the baby for anomalies,defects,swelling etc as soon as he [illegible] for example:spina bifida,meningocele,meningo [illegible] which are seen in the neck area.Avoid cutting or opening [illegible] swellings.Cover them with clean and lubricated (with special [illegible]) pieces of gauze and refer the patient to an equipped [illegible] centre.

Inspect the lower limbs for deformities.Examine anus,urogenital [illegible] for anomalies such as agenesis of anus.All of the [illegible] should be referred to an equipped health

NEONATAL SEPTICEMIA:

[illegible] bacteria may enter the baby's body through umbilical cord [illegible] as these bacteria reach the blood they cause [illegible] called septicemia.However it usually takes two days [illegible] to develop.Therefore most cases is most [illegible] on the second day fall ill after the childbirth.

[illegible]

[illegible] after the first week

[illegible]

[illegible] in diarrhea

NEONATAL TETANUS:

[illegible] congenital abnormalities lose their lives during the [illegible] after birth due to tetanus.However the causes [illegible] the fetus or the G.P.'s will [illegible] mortality has [illegible] of [illegible] the special [illegible] female through which the way of conducting [illegible]

[illegible] the causative agent) enters the blood stream [illegible] muscle's [illegible] the [illegible] of the dominant [illegible] from the body.

[illegible] for many years in soil and [illegible] body through [illegible] produces a [illegible] from [illegible] may result

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NEONATAL CARE

Normally a newborn infant is supposed to start breating as soon as he/she is born. If he or she doesn't follow the following stepe [illegible] tively until one of them works

- [illegible] the baby's back with hand or
- [illegible] his/her [illegible]
- [illegible] the discharges fr[illegible] the nose and by mouth means of a [illegible]
- [illegible] of air into the baby's mouth or nose (mouth [illegible] mouth [illegible] artificial respiration)
- [illegible] Remove the blood and other liquid from his [illegible] of damp and warm piece of cloth. Avoid [illegible] with the water all over his body)
- [illegible] the umbilical [illegible] within 1-3 days)
- [illegible] the baby with [illegible] every day. [illegible] the baby's navel with a sterile [illegible] from [illegible] insect etc.

Cut the gauze as shown. (Fig 2)

Cover with sterile dressing.

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Treatment:
Hard and less effective.
Tetanus can be prevented by two ways:
1.Observing hygienic condition while conducting a labor.
Using sterile instruments and clean hands while cutting the umbilical cord.Cleaning the umbilical cord after cutting with an antiseptic solution and covering it with a sterile dressing.
Avoiding placing the baby in a dirty place right after birth as well as covering the navel with ashes,dung and contaminated pieces of clothes.

INFERTILITY

A couple is said to be infertile if pregnancy doesn t result after one year of normal sexual activity without contraceptives.If the couple has a desire for children both partners should be evaluated individually. Infertility can be primary or secondary.
Treatment:
Perhaps the infertility is treated partially but this inability may not be completely eliminated
Infertility in female may result from
[illegible] Vitamin deficiency,lack of protein and [illegible] Diabetes mellitus
[illegible] Hormonal changes of the hypophysis,thyroid and supra renal gland
[illegible] of the reproductive organs:e g [illegible] cervix,uterus,fall plan tubes and ovary.
[illegible] Intercourse Vaginal douche,douche and antiseptics harmful to sperm
[illegible] that cause obstruction of the fallopian tubes.
[illegible]
[illegible] of men being from the age of 18 years and [illegible] at years.However a man can have a child [illegible] age of 60 years
[illegible] in male may result from
[illegible] in the vagina due to hypospadia [illegible] as well as [illegible]
[illegible] and [illegible]spermia
[illegible] Defective spermatogenesis (Agenesis
[illegible] infertility and obstruction of the ductus deferens.

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OBSTETRICS AND GYNECOLOGY

Obstetrics:The branch of medicine dealing with pregnancy,labor and the puerperium.
Gynecology:The branch of medicine dealing with diseases of the genital tract.

Anatomophysiology:
The reproductive (genital) organs in female are:ovary,fallopian tube,uterus,cervix,vagina,and external genital organs (vulva)
Ovary are two almond like [illegible] situated in the lower part of the abdomen The female egg (ovum) produced by ovary is fertilized by the male egg (Sperm) produced in the testicles.The fertilization takes place in the fallopian tubes,then the fertilized ovum (zygote) moves to the uterus
The uterus is a pear like organ situated in the middle of the lower part of the abdomen cavity separated from the vagina by uterine cervix .During the labor the uterine cervix dilates so that the fetus can pass through it
Vagina is a tubal extended from the uterine cervix till the outer [illegible] of the body (vulva) Vulva also include the external genitalia of the female Urethra drains the urine from the bladder through vulva.Its that in female is shorter than that of male

MENSTRUATION (MONTHLY PERIOD):

A non pregnant women who is able to reproduce excretes some blood through her vagina approximately every month for a few days is called menstruation.
The monthly period results from the destruction of the inner layer of uterus [illegible] some months' therapy. The onset of the monthly [illegible] called the first [illegible] menstruation.Naturally [illegible] at the age of 13 years.However it may some time [illegible] the age of 15 or 16 or 17 years.
[illegible] the first menstruation ovulation (the release of the ovum [illegible] the ovaries) doesn't occur.Ovulation may not happen within a [illegible] of months of first [illegible] The [illegible] woman [illegible] the interval [illegible] monthly period [illegible] the [illegible] of [illegible] menstruation [illegible] the woman's age [illegible] conditions and living [illegible] The average interval is 28 days (with a range of 25-30

[illegible] the [illegible] of menstruation (menopause) occurs between [illegible] During this period a woman experience [illegible] monthly periods [illegible] over a span [illegible]
[illegible] feel hot from inside or she may look [illegible] If the monthly period restart after a long

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period of cessation it may be a sign of cancer. Therefore she should be referred to a doctor as soon as possible.
Dysmenorrhea (painful menstruation, characterized by severe pains in the lower part of the abdomen and waist) in young girls can be relieved by means of physical exercises, Aspirin and sitting in a pot of warm and clear water
Irregular menstruation (short or longer intervals or changes in the amount of blood in each monthly period) may result from normal changes in the body or malnutrition. Chronic diseases such as TB infection or tumor are other causes.

VAGINAL DISORDERS

Vaginal discharges: Excretion of a sticky like or pus like substance (called leukorrhea). Normal vaginal discharge is a bright whitish or yellowish fluid that [illegible] cause any trouble for the women. Vaginal discharges in larger amounts and associated with vaginal [illegible] itching and burning sensation are considered abnormal and require close examination.

TYPES OF VAGINAL INFLAMATION:

1. Trichomoniasis
a parasitic disease of the genital organ. It may be asymptomatic in many women but in most cases the women suffer vaginal discharges. The disease is transmitted through sexual contact. Therefore both partners should be treated even if the husband doesn't have any complaint.
Signs and symptoms:
Vaginal discharge: Thin, foamy, whitish, or greenish yellow, smelly, vaginal itching, dysuria (painful urination), painful, tender and swollen external genital organs
Treatment:
[illegible] genital organs should be kept clean. Vaginal lavage with [illegible] water, [illegible] and tetracycline and douche of vinegar or [illegible] and symptoms
[illegible] antibiotics metronidazole can be administered [illegible] and pills should also be given to [illegible] and pills are contraindicated during the [illegible] of pregnancy

FUNGAL INFLAMMATIONS

[illegible] candidiasis (also called yeast) This fungal may exist [illegible] sometimes in some women causes vaginal [illegible] and other symptoms
[illegible] taking too much antibiotic drugs or oral

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contraceptives or [illegible] diseases e.g diabetes mellitus the vaginal environment changes .Thus paves the way for fungal growth.
Signs and symptoms:
White discharges resembling cheese and smelling like the stale bread.
Vaginal and vulvar itching ,erythema and burning .Bright red skin lesions closed to the external genital organs.Dysuria.
Treatment:
Vaginal lavage with vinegar solution or gentian violet 1-2 %.
Vaginal Nystatin suppository once or twice a day for 1-2 weeks.

PELVIC INFLAMMATORY DISEASES

Infection of the female sex organs due to a number of bacteria.
Signs and symptoms:
Severe pain in the lower part of the abdomen. It may start suddenly or begin along with other signs and symptoms simultaneous with monthly period
-Fever sometimes,associated with tremor.
-Vaginal discharges
[illegible] abdominal pain
[illegible] may result in infertility
Differential diagnosis:
With ectopic pregnancies,appendicitis and rotation of ovarian cyst.
Treatment
[illegible] plenty of liquid and referral to an equipped health [illegible] if necessary.

FAMILY PLANNING

Family planning makes it possible for parents to have the desired [illegible] of children [illegible] certain number. Family planning is not [illegible] hand out advice to [illegible] children and their [illegible] any other problem [illegible] children.
[illegible] the different methods of contraceptives as well as their [illegible] the attitudes [illegible] the attitudes of health workers,and [illegible] to know.
[illegible] of the family planning for the mothers health.
[illegible] of the family planning
[illegible] of the family planning methods.
[illegible] of family planning
[illegible] genital organs
[illegible] method

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CONTRACEPTIVE:

1-The method of preventing contraception,fertilization and implantation of the fertilized ovum.

[illegible] methods that keep the sperm away from the ovum.

[illegible] withdrawal:The male withdraw his penis from vagina before organs so that not to deposit sperm [illegible] the in it.

[illegible] is not a safe method however.

[illegible] rubber covering worn over the male sex organ.

[illegible] rubber cup with a spring. It rests [illegible] the posterior [illegible] of the symphysis pubis and the [illegible] the vagina covering the anterior vaginal wall and the cervix in addition some spermicidal jellies or cream are [illegible] used in this method.

[illegible] by tablets:Progesterone 35 mg.

[illegible] method of safe period:Determine the time of ovulation by [illegible] the daily temperature and avoiding copulation [illegible] during the ovulation.

[illegible] the fallopian tubes through surgical operation

[illegible] Vaginal destructive to sperm

[illegible] douche with spermicidal solutions after copulation.Using [illegible] spermicidal creams or foam tablets.

[illegible]:Excision [illegible] vas deferens of a portion of it.

[illegible] that prevent ovulation.

[illegible] contraceptive pills started from the fifth day of the monthly [illegible] regularly taken one/day

[illegible] implantation

[illegible] progesterone).

[illegible] IUD (Intra uterine contraceptive [illegible] device.

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FATWA FOR FAMILY PLANNING:
CHAIRMAN OF THE FATWA COMMITTEE
AZHAR UNIVERSITY, THE UNITED STATES OF ARAB
MOHAMMED ABDUL FATAH
AL MAANI HAS ISSUED THIS FATWA ON 10:03:1953

Question: A married man has a child and he doesn't want to have many children. He is afraid that he will fail to bring up all of his children properly, due to economic problems and lack of time; and this will affect his health and mind. He is also afraid that frequent pregnancies and labors with short intervals will damage his wife's health, because a mother needs to have enough rest after each labor so that she can regain all what she has lost during pregnancy.

Does the husband or the wife have the right to use some scientific and theoretical methods according to a doctor's advice to lengthen the intervals so that the mother will have enough time to rest and regain her bodily losses, and the father will not have to undergo economic, social and mental stresses.

Answer: Using the drug that prevents pregnancy temporarily is not forbidden in religion.

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How to verify / investigate the amount of protein in Urine.

NECESSARY ITEMS:

Uristix Bottle.

ACTION.

Inside the uristix bottle there are standard special tapes of paper for the investigation of protein in urine. Take one of these standard special tape and close the cup of the bottle tight so as to prevent other tapes from moisturing. The tape which you have taken put it into the tube in which the amount of urine (specimen) already exists. Take out the tape from the tube after a while, and then compare the color of tape with the standard col of uristix which has different colors. When the color of the same matches with any color of the bottle. That color shows the level of protein in urine . See following figure.

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Procedure for the investigation / examination of Glucose in Urine

EQUIPMENTS REQUIRED:

1. URISTIX.

ACTION:

This method is the same as for investigation / examination of Protein.

PREGNANCY TEST.

EQUIPMENTS NEEDED:

1. ANTI HCG Solution.
2. Latex HCG Solution.
3. Black Slide.

ACTION:

First take a urine drop of women who is under the doubt of pregnancy and pour this drop on black slide, then add 1-2 drops of Anti HCG solution and wait for 30 seconds. Thereafter add 1-2 drops of Latex HCG Solution and shake the black slide circularly for 3 minutes so as to mix it. The result would be positive if there is any re-action, but it would be negative if the mixing is being unchanged.

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BCH Clinic Resupply

	QUANTITY	LIST OF ITEMS
Category: Initial Clinic Supply		
Clinic Resupply	1	Attachment 1B
Psi Kits	30	Attachment 5
Category: Health Records		
Antenatal/Labour/Postnatal Record	300	Attachment 8A
Child Health Chart	300	Attachment 8B (samples)
Category: FHW Training Items		
FHW Shoulder Bags	14	
FHW Certificates (to be prepared)	24	
Category: BCH (Pregnancy Testing) Lab Kit		Attachment 10B
Category: Additional Pharmaceutical Supplies		Attachment 11
Category: Delivery Packets	300	Attachment 12

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Clinic Resupply

Product Identification Number.	Total Number Counting Units	Generic Name	Counting Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
1.202	2	LIDOCAINE TOPICAL GEL 2%	GEL 2%, TUB 15GR	13.60	0.55
1.203	110	LIDOCAINE 2% SOLUTION	AMP 10ML	402.05	16.29
2.111	14,000	ACETAMINOPHEN 500MG TABLETS	TAB 500MG	1143.80	46.35
2.121	6,000	ACETYL SALICYLIC ACID 300MG TABLETS	TAB 300MG	592.80	24.02
2.125	3,000	IBUPROFEN 200MG TABLETS	TAB 200MG	517.50	20.97
2.141	60	PENTAZOCINE 30MG/ML SOLUTION	AMP 30MG x 1ML	703.56	28.51
2.142	200	PENTAZOCINE 25MG TABLETS	TAB 25MG	301.92	12.23
2.191	60	RUBEFACIENTS CREAM	CRM 5GR, TUB	331.80	13.44
3.001	4,000	CHLORPHENIRAMINE MALEATE 4MG	TAB 4MG	58.00	2.35
3.002	30	PROMETHAZINE 25MG/ML SOLUTION	AMP 50MG x 2ML	150.00	6.08
3.003	50	DEXAMETHASONE 4MG/ML SOLUTION	AMP 4MG x 1ML	90.00	3.65
5.001	50	DIAZEPAM 5MG/ML SOLUTION	AMP 10MG/2ML	618.60	25.06
6.101	600	MEBENDAZOLE 100MG TABLET	TAB 100MG	582.00	23.58
6.201	4,000	METRONIDAZOLE 200MG TABLET	TAB 200MG	700.00	28.36
6.311	4,000	AMPICILLIN 250MG CAPSULES	CAP 250MG	2392.00	96.92
312	400	AMPICILLIN 500MG POWDER FOR INJECT.	POW 500MG/VIAL	1992.00	80.71
6.313	100	BENZATHINE BENZYL PENICILLINE 1.2	POW 1.2MIU/VIAL	850.00	34.44
6.315	4,000	PHENOXYMETHYL PENICILLIN 250MG	TAB 250MG	1980.00	80.23
316	400	PROCAINE PENICILLIN FORTIFIED	POW 300MG+60MG/VIAL	992.00	40.19
6.321	3,000	CHLORAMPHENICOL 250MG CAPSULES	CAP 250MG	2235.00	90.56
6.322	2,000	ERYTHROMYCIN 250MG TABLETS	TAB 250MG	3120.00	126.42
6.324	8,000	TETRACYCLINE HCL 250MG CAPSULES	CAP 250MG	1824.00	73.91
6.326	2,000	SULFAMETHOXAZOL 400+TRIMETHOPRIM 80	TAB 400MG+80MG	597.40	24.21
6.328	60	SULFAMETHOXAZOL 200+TRIMETHOPRIM 40	STR 200MG+40MG/5ML	285.00	11.55
6.502	3,000	GRISEOFULVINE 125MG TABLETS	TAB 125MG	918.00	37.20
6.701	4,000	CHLOROQUINE 150MG BASE TABLETS	TAB 250MG=150MG BASE	916.00	37.12
10.101	12,000	FERROUS SULPHATE + FOLIC ACID	TAB 60MG+0.25MG	1236.00	50.08
11.101	20	DEXTRAN 70, 6% W/V IN NORMAL SALINE	SOL 500ML	1400.00	56.73
13.201	32	GENTIAN VIOLET POWDER	POW 100GMS	264.00	10.70
13.202	100	NEOMYCINE 5MG + BACITRACIN 500 IU	OMT 5MG + 500IU TUB	374.00	15.15
13.203	30	NITROFURAZONE 0.2% CREAM	CRM 0.2%, GR TUB	168.90	6.84
13.601	48	BENZYL BENZOATE 25% EMULSION	EMX 25%, ML BTL	168.00	6.81
15.001	4	CHLORHEXIDINE 1.5% + CETRIMIDE 15%	SOL 1.5%+15%, 2.5 L	200.00	8.10
15.003	4	POVIDONE-IODINE 10%	SOL 10%, 500ML	207.95	8.51
[illegible] 001	20	FUROSEMIDE 10MG/ML INJECTABLE	AMP 20MG X 2ML	40.77	1.65
101	9,000	ALUMINIUM HIDROXIDE (COMP.) TABLET	TAB 400MG	1116.00	45.22
17.201	500	PROMETHAZINE HCL 25MG TABLETS	TAB 25MG	48.45	1.96
[illegible] 301	60	ANTIHEMORRHOIDAL OINTMENT	OMT 10GR TUB	265.00	31.00
[illegible].021	200	OPAL REHYDRATATION SALTS FOR 1000CC	POW FOR 1 LITRE	400.00	16.21
21.101	300	OXYTETRACYCLINE 1% EYE OINTMENT	OMT 1%, 3.5MG TUB	600.00	24.31
25.101	20	AMINOPHYLLINE 25MG/ML	AMP 25MG/ML, 10ML	51.00	2.07
25.102	2,000	AMINOPHYLLINE 100MG	TAB 100MG	136.00	5.51
25.201	4,000	TRIPROLIDINE + PSEUDOEPHEDRINE	TAB 2.5MG+60MG	1200.00	48.67
26.201	10	DEXTROSE 25%	SOL 25%, 20ML	20.00	0.81
26.204	1,210	WATER FOR INJECTIONS	AMP 2ML	695.75	28.19
27.202	5,000	VITAMIN B COMPLEX TABLETS	TAB/CAPS COMPOUND	1425.00	57.74
28.301	18	BUCCAL THERMOMETER FIC	PIECE	252.00	10.21
28.412	6	BULB FOR AUDIOSCOPE	PIECE	354.00	14.34

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Product Identification Number.	Total Number Counting Units	Generic Name	Counting Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
28.413	12	BATTERIES FOR OTOSCOPE	D-TYPE, 1.5V	60.00	2.43
28.703	4	VASELINE WHITE	500MG/JAR	80.00	3.24
29.126	4	SYRINGE HYPO, 50CC, LUER DISPOSABLE	50CC	32.40	1.31
29.132	60	SYRINGE HYPO LUER DISP.2CC,WITH NED	2CC, 1CC GRADUATED	75.00	3.04
29.133	60	SYRINGE HYPO LUER DISP.5CC,WITH NEE	2CC, 1CC GRADUATED	75.00	3.04
29.134	40	SYRINGE WITH NEEDLE,10CC,DISPOSABL	10CC, 2CC GRADUATED	76.00	3.08
29.222	600	NEEDLE, HYPO, LUER, DISPOSABLE 23G	23G(or 24G) x 1.1/4"	252.00	10.21
29.224	600	NEEDLE, HYPO, LUER, DISPOSABLE 19G	19G(or 20G) x 1.5"	270.00	10.94
29.321	5	CANNULA INTRAVENOUS LUER 22G	22G(or 21G) x 1-5/8"	66.00	2.67
29.322	5	CANNULA INTRAVENOUS LUER 20G	20G(or 19G) x 1-5/8"	66.00	2.67
29.604	4	BRUSH FOR SYRINGES		16.00	0.65
32.121	2	BLADES FOR SCALPEL, NO.10	PACKET OF 100	356.00	14.42
32.205	400	RAZOR BLAD DOUBLE EDGE INF.QUAX	PIECE	225.60	9.14
33.161	10	BOTTLE PLASTIC+ASSORTED SCREW CAP	125CC NARROW MOUTH	35.00	1.42
33.193	250	PARAFORMALDEHYDE TABLETS	TAB 1000MG	1000.00	40.52
33.311	80	CREPE BANDAGE ROLL	4.5Mx10CM	672.00	27.23
33.321	100	GAUZE BANDAGES 3"	ROLL, ONE DOZEN	1425.00	57.74
33.331	30	ABSORBANT GAUZE FOR COMPRESSES	20 YARD	1200.00	48.62
33.332	20	COTTON HYDROPHILIC ROLL	ROLL 300GMS	208.00	8.43
33.341	20	TRIANGULAR BANDAGE	100CM SIDES	80.00	3.24
33.349	900	COTTON STRING GLAZED LEATHER SW,555	PIECE,1FT	180.00	7.29
33.351	20	ADHESIVE TAPE 1"	1 ROLL	95.00	3.85
33.352	10	ADHESIVE TAPE 3"	ROLL	136.00	5.51
33.501	2	NAILBRUSH FOR SURGEON, NYLON HAIR	8CMx2.5CM	12.00	0.49
33.502	12	TOILET SOAP	1 PIECE 113GMS	44.40	1.80
33.603	60	GLOVES RUBBER BY PAIR	SIZE 7.5, 1 PAI	369.00	14.95
33.604	60	GLOVES RUBBER BY PAIR	SIZE 8, 1 PAIR	369.00	14.95
36.111	6	CATHETER URINARY FOLEY TYPE	12CM,30ML	99.00	4.01
36.112	10	CATHETER URINARY FOLEY TYPE	14CM, 30ML	165.00	6.69
36.113	10	CATHETER URINARY FOLEY TYPE	16CM, 30ML	165.00	6.69
36.114	20	BAG COLLECTOR URINARY + DRAINAGE		123.00	4.98
36.121	1	TUBE NASOGASTRIC	SIZE 8	5.50	0.22
36.123	4	TUBE NASO-GASTRIC	SIZE 10	31.60	1.28
36.124	4	TUBE NASO-GASTRIC	SIZE 12	31.60	1.28
36.211	20	CARROGATED RUBBER		120.00	4.86
37.111	40	CATGUT PLAIN 3/0, 75CM, WIN NEEDLE	NEEDLE 26MM,3/8,RND	553.20	22.41
37.122	40	CATGUT CHROMIC 2/0,75CM,WIN NEEDLE	NEEDLE 30MM,4/8,RND	553.20	22.41
37.212	40	SILK BRAIDED 3/0, 75CM, WIN NEEDLE	NEEDLE 28MM,3/8,CUT	460.00	18.64
.121	4	"GREEN BOOK"	PIECE	80.00	3.24
9.301	6,000	PACKET FOR MEDICINE	CMx CM	450.00	18.23
*** Total ***					
33.503	300	Mini Soap Bar	piece.	45744.35	1853.50
				900.00	

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LABOUR RECORD کارت ولادت

تاریخ ولادت	
جای ولادت	
کمک کننده	وظیفه کمک کننده

وقت ولادت	نورمال	۲۴ ساعت بعد از وقت ولادت	خانم وقت ولادت را نمی داند

طریقه ولادت	نورمال ولادت	سیزارین	سقوط حبل السری	نورسپنس	طفل به پا	وغیره

مرحله سوم	پلاسنتا نورمال	بسیار خون میآید	کشیدن پلاسنتا توسط دست

طفل	وزن	جنس	حال		
			نورمال	غیرنورمال	مرده

نوت: توسط دوا - ولادت غیرنورمال - وغیره

POSTNATAL VISIT ملاقات بعد از ولادت

تاریخ	
جای وزیت	

		بلی	نه
مادر	تب دارد		
	بسیار خون میآید		

		بلی	نه
طفل	تب دارد		
	ناف نورمال است		
	طفل به کلینک راجعه شده		
	واکسین BCG شده		
	عمر طفل		

		بلی	نه
تعلیمات صحی	طریقه شیردادن		
	تغذی طفل در ماه چهارم		
	هدایت واکسین ها		

نوت: اگر طفل و مادر کدام تکلیف داشته باشد

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مسلسل نمبر

CHILD HEALTH CHART

د کوچنی نوم	ملک الجملی
د کورنی د مشر نوم	
د قومانڈان نوم	
د زیږیدنی نیټه	
د کوچنیانو تعداد	
د مړو کوچنیانو تعداد	

د کلنی غځه ترپلځه کلنی پورې د کوچنیانو د مټ اندازه			
نیټه	د 13 1/2 cm غځه زیات شین رنګ	د 12 1/2 cm د 13 1/2 cm ترمنځ سپین رنګ	د 12 1/2 cm غځه کمه سور رنګ

دا وزن په چارت کې ولیکئ	
دراتلونکی معاینې لپاره ورسره وعده تعین کړی	
دا وزن په چارت کې ولیکئ	
دراتلونکی معاینې لپاره ورسره وعده تعین کړی	
د BHU ډاکټر ته یې معرفي کړی	

	هو	نه
آیا دا کوچنی غیرقانونی دی؟		
آیا دا کوچنی یتیم دی؟		
آیا کوچنی د بوتل په شدی تغذیه کیږی؟		
آیا دا ساوړیم [illegible]		
آیا په دی کورنی کې د سل (لړی وټخ) ناروغ شته؟		

که چیری کوم خاص اجتماعی مشکل ولری

لاسلیک

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MINIATURE DAI KIT

Prod.No.	Stand.Conts.	Qt/Dai kit
17.621	ORS Sachets	2 Pieces
32.202	Razor blades	14 Pieces
33.549	Cotton string Glazed	24 Pieces 1 Pieces
33.361	Gauze Pads 4 X 4 inches	2 Packets Piece/Pack
33.501	Nail Cleaning Brush	1 Piece
333.302	Soap Bar	14 Pieces

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Management Sciences for Health / Peshawar

MCH-KIT: LAB. Resupply

Attachment 10 B

Product Identification Number.	Total Number Counting Units	Generic Name	Counting Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
79.525	2	PREGNANCY TEST STRIPS	BOTTLE OF 70 STRIPS	200.00	8.12
41.174	3	HAEMOGLOBINOMETER PIPETTE	WITH PIPETTE 2 TUBES	73.50	2.98
41.175	1	HAEMOGLOBINOMETER SET	HAEMOMETER SAMLE	190.00	7.71
41.624	2	BEAKER 50ML	GLASS PIECE	120.00	4.87
41.626	1	BEAKER 500ML	GLASS PIECE	129.00	5.24
41.704	2	UROSTIX	BOTTEL OF 100 STP	516.00	20.95
41.738	3	ETHANOL,96 %	SOL 200ML	825.00	33.50
41.755	2	HYDROCHLORIC ACID CONC.	SOL 200ML	15.86	0.64
41.765	1	BLOOD LANCETS(FEATHER)	200 PCS	98.00	3.98
41.805	1	LAB.RECORD BOOK,WITH FILE COVERS	WHITE SHEETS 2 REMS	475.00	19.29
41.123	2	MARKER BLACK	3 PAKT.BLACK MARKERS	16.00	0.65
				2658.36	107.93

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Attachment 11

ADDITIONAL PHARMACEUTICAL SUPPLIES

	QUANTITY	PRODUCT M
Lidocain 2% solution	60	1.203
Methargin liquid	80 (inj)	22.00
Amoxycillin capsules	2000	6.318
Nystatine 100,000 IU tab	2000	6.501
Oral Rehydration Salts (Additional)	200	17.62
Dihydohydraxiconaline or Metronidazol	2500 vag.tabs	"
Oxytetracycline	2500 vag.tabs	
Arm circumference bands	10 bands	

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DELIVERY PACKETS

3 piece of cotton string (Prod # 33.349)

1 razor blade (Prod # 32.305)

1 miniature soap bar

1 polytene bag in which to pack the above items and seal

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MCH Post Initial Supply

	Quantity	List of Items
Category: MHW Initial Kit		
a: Kit D-1	1	Attachment-1
b: Kit D	5	Attachment-2
c: Field Kit	1	Attachment-3
d: Equipment	1	Attachment-4
e: Dai Kits	8	Attachment-5
Category: Dai Kit		
Midwifery Kit (includes Midwifery Manual)	1	Attachment-6
Category: Health Education Material		
Set of 6 flipchart	1	Attachment-7
Set of 6 Silkscreen poster	1	Attachment-7
Category: Health Records		
Antenatal/Labour/Postnatal Record	100	Attachment-8A
Child Health Chart	100	Attachment-8B (samples)
Category: FHW Training Items		
Large Steel FHW Trainers Box and Contents and ALSO INCLUDE	1	Attachment-9
FHW Trainer manual	1	
Scale	1	
FHW Shoulder Bags	8	
FHW Certificates (to be prepared)	10	
Category: [illegible] Lab Kit	1	Attachment 10A
Category: Additional Pharmaceutical Supplies		Attachment-11
Category: Delivery Packet	25	Attachment-12
Category: Additional Medical Equipment		
		Product No
Letter Scale	1	28.602
Rubber gloves	20	33.603
Chest Halter		32.111
Blades for Scalpel	20	32.112
Razor safety		32.201
Razor blade	100	32.203
Operating scissors	1	32.312
Mayo Dissecting Scissors	1	32.321
Dressing forceps	1	32.411
Toothed forceps	1	32.413
Needle holder forceps	1	32.417
Forceps, Halstead Mosquito straight	1	32.421

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Forceps, Halstead Mosquitocurved	1	32.422
Farabeuf Retractors (set of 2)	1	32.611
Probe Double Ended	2	32.711
Needle Holder Collier	1	32.811
Roundbowl Stainless steel	1	32.132
Catgut 2/0, with needle	50	32.122
Silk Braided, 3/0, 75cm w/needle	30	32.212

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Attachment 12

DELIVERY PACKETS

3 pieces of cotton string (Prod # 33.349)

1 razor blade (Prod # 32.305)

1 miniature soap bar

1 polythene bag in which to pack the above items and seal

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Attachment 11

ADDITIONAL PHARMACEUTICAL SUPPLIES

	QUANTITY	PRODUCT #
Lidocain 2% solution	60	1.203
Methargin liquid	80 (inj)	22.001
Amoxycillin capsules	2000	6.318
Nystatine 100,000 IU tab	2000	6.501
Oral Rehydration Salts (Additional)	200	17.621
Dihydohydraxiconaline or Metronidazol	2500 vag.tabs	"
Oxytetracycline	2500 vag.tabs	
Arm circumference bands	10 bands	

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Attachment 10-A

Management Sciences for Health / Peshawar
MCH-KIT
LAB. (Initial)

Item Number	Total Number of Counting Units	Generic Name	Counting Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
[illegible].529	2	PREGNANCY TEST STRIPS	BOTTLE OF 70 STRIPS	200.00	8.12
[illegible].124	5	HAEMOGLOBINOMETER PIPETTE	WITH PIPETTE 2 TUBE	122.50	4.97
[illegible].125	2	HAEMOGLOBINOMETER SET	HAEMOMETER SAMLE	380.00	15.43
[illegible].624	3	BEAKER 50ML	GLASS PIECE	180.00	7.31
[illegible].626	1	BEAKER 500ML	GLASS PIECE	129.00	5.24
[illegible].704	2	UROSTIX	BOTTLE OF 100 STP	516.00	20.95
[illegible].705	1	ANTI-COAGULANT FOR BLOOD	1000 GMS(EDTA)	1100.00	44.66
[illegible].732	3	ETHANOL,96 %	SOL 200ML	825.00	33.50
[illegible].755	2	HYDROCHLORIC ACID CONC.	SOL 200ML	15.86	0.64
[illegible]5	1	BLOOD LANCETS(FEATHER)	200 PCS	98.00	3.98
[illegible]5	1	L/P.RECORD BOOK,WITH FILE COVERS	WHITE SHEETS 2 REMS	475.00	19.29
[illegible]	2	MARKER BLACK	3 PKMT.BLACK MARKERS	16.00	0.65
Total				4057.36	164.73

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Attachment-9

LARGE STEEL FHW TRAINERS BOX

Metal boiling pot
Plastic water pitcher
Metal Wash bowl
Cloth poster of pregnant woman
cloth model uterus
cloth model vagina
1 tennis ball
Doll and Placenta
Plastic sheeting
Clean cloth for wrapping child
5 pieces of 4" x 4"clotrh for cleaning newborn
1 roll cotton
Salt aNd suger
Red dye
2 wooden sticks

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Attachment 7

Set of 6 Flipcharts

1- EPI (DARI-PASHTU-ENGLISH)
2- WEANING FOODS (DARI-PASHTU-URDU)
3- DOMESTIC SANITATION (DARI-PASHTU-URDU)
4- LATRINE USE (DARI-PASHTU-URDU)
5- WASHING/BATHING (DARI-PASHTU-URDU)
6- BREASTFEEDING (DARI-PASHTU-URDU)

Set of 6 Silk Screen Posters

1- HANDWASHING (PASHTU)
2- BREASTFEEDING (DARI-PASHTU-URDU)
3- WEANING FOODS (DARI-PASHTU-URDU)
4- VACCINATION MALE VACCINATOR (DARI-PASHTU-URDU)
5- VACCINATION FEMALE VACCINATOR (DARI-PASHTU-URDU)
6- HEALTHY MOTHER HEALTHY BABY (DARI-PASHTU-URDU)

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Attachment-6

Lot no.
1/25/91

Management Sciences for Health / Peshawar
MVA-III

Product Identification Number.	Total Number Counting Units	Generic Name	Counting Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
28.401	1	FETOSCOPE	PIECE	35.00	1.60
28.502	1	FLASHLIGHT RIGHT ANGLED PRE-FOCUSED	WITH 2 DRY CELL 1.5V	70.00	3.20
28.511	1	SPECULUM VAGINAL GRAVES, SMALL	SMALL SIZE	40.00	1.83
28.512	1	SPECULUM VAGINAL GRAVES, MEDIUM	MEDIUM SIZE	42.00	1.92
28.513	1	SPECULUM VAGINAL GRAVES, LARGE	LARGE SIZE	45.00	2.06
31.223	1	APRON UTILITY PLASTIC	900MM X 1PM	50.00	2.29
31.224	1	POUCH, CLEAR POLYPROPYLENE	250 X 380MM	50.00	2.29
31.225	1	SHEETING, PLASTIC.	910 X 1800MM	40.00	1.83
32.314	1	OPERATING SCISSORS BLUNT/BLUNT	STRAIGHT 14.5CM	16.00	0.73
32.333	1	EPISIOTOMY SCISSORS, ANGULAR BRAUN	145MM SS	25.00	1.14
32.432	1	FORCEPS, STERILIZER UTILITY	200MM YAUGHN SS	50.00	2.29
32.451	1	FORCEPS SPONGE HOLDING RAMPLEY	25CM	45.00	2.06
32.502	1	TOWEL HOOK.	430 X 500MM	15.00	0.69
692	1	MOUTH MUCOUS EXTRACTOR	FOR NEONATE	30.00	1.37
33.905	1	ALUMINUM CASE FOR MIDWIFERY KIT	ALUM. LID & HANDLE	200.00	9.14
33.133	2	SPONGE BOWL STAINLESS STEEL	6"DIAM x 2"DEEP	53.14	2.43
33.141	1	KIDNEY TRAY METAL	8 1/4"x4"	31.20	1.43
33.173	1	SOAP-BOX, 2-PIECE	95x63x35MM, PLASTIC	5.00	0.23
33.501	1	NAILBRUSH FOR SURGEON, NYLON HAIR	8CMx2.5CM	6.00	0.27
*** Total ***				849.34	38.77

*** ALSO PACK "MIDWIFERY MANUAL FOR AUXILIARY NURSE-MIDWIVES"

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MINIATURE DAI KIT

Prod.No.	Stand.Conts.	Qt/Dai kit
17.621	ORS Sachets	2 Pieces
32.202	Razor blades	14 Pieces
33.549	Cotton string Glazed	24 Pieces 1 Pieces
33.361	Gauze Pads 4 X 4 inches	2 Packets Piece/Pack
33.501	Nail Cleaning Brush	1 Piece
333.302	Soap Bar	14 Pieces

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AGE NO.
3/06/91

Management Sciences for Health / Peshawar
Basic Health Worker - Equipment Carton

Product Identification Number.	Total Number Counting Units	Generic Name	Packing Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
29.112	4	SYRINGE HYPO, LUER LOCK, GLASS 2CC	GLASS SYRINGE 2CC	103.60	4.73
29.113	4	SYRINGE HYPO, LUER LOCK, GLASS 5CC	GLASS SYRINGE 5CC	76.00	3.47
29.115	1	SYRINGE HYPO, LUER LOCK, GLASS 20CC	GLASS SYRINGE 20CC	29.00	1.33
29.602	2	TOURNIQUET LATEX RUBBER FOR INFUSIO	75CM x 1.5CM	13.50	0.62
29.604	2	BRUSH FOR SYRINGES		5.80	0.27
29.605	1	CUTTING PLIERS		13.00	0.59
32.201	1	RAZOR SAFETY, ALL METAL		6.00	0.27
32.314	2	OPERATING SCISSORS BLUNT/BLUNT	STRAIGHT 14.5CM	32.00	1.46
32.412	2	DRESSING FORCEPS, THUMB, BROAD	THUMB, BROAD 16CM	28.00	1.28
32.423	2	FORCEPS HEMOSTATIC PELLY, STRAIGHT	STRAIGHT 14CM	40.00	1.83
32.424	2	FORCEPS HEMOSTATIC PELLY, CURVED	CURVED 16CM	50.00	2.29
32.451	2	FORCEPS SPONGE HOLDING ROMPLEY	25CM	90.00	4.11
32.901	4	STAINLESS STEEL BOX 8"x3"	8"x3"	396.00	18.10
33.111	2	LISTER BANDAGE SCISSORS, ANGULAR	ANGULAR 18CM	60.00	2.74
33.114	1	ORDINARY SCISSORS, STRAIGHT	8.5"	14.75	0.67
33.115	1	NAIL CUTTER		10.00	0.46
33.131	1	FORCEPS JAR	6"DEEP12.5"WIDE	82.88	3.79
33.133	2	SPONGE BOWL STAINLESS STEEL	6"DIAM12"DEEP	53.14	2.43
33.135	1	CUP MEASURING WITH HANDLE STAINLESS	1000CC, GRADUATED	68.25	3.12
33.136	1	FUNNEL STAINLESS STEEL MOUTH 3x4.5"	MOUTH 3x4.5"	20.00	0.91
33.141	2	KIDNEY TRAY METAL	8 1/4"x4"	62.40	2.85
33.142	1	TRAY ALUMINIUM ORDINARY	14"x10.5"x1"	37.00	1.69
33.151	1	DRESSING DRUM STAINLESS STEEL	6"x6"	119.95	5.44
33.172	1	BASIN PLASTIC	13"x5"	16.00	0.73
33.173	1	SOAP-BOX, 2-PIECE	95x65x35MM, PLASTIC	5.00	0.23
33.181	1	STERILIZER INSTRUMENT WITH COVER	STEEL 10"x5"x3.5"	175.75	8.03
33.191	1	PRESSURE COOKER, 10LIT	10LIT	295.00	13.48
*** Total ***				1902.02	86.93

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Attachment-2

Management Sciences for Health / Pakistan
Basic Health Worker - D Carton

Product Identification Number	Total Counting Units	Generic Name	Counting Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
2.111	1,000	ACETAMINOPHEN 500MG TABLETS	TAB 500MG	81.70	3.73
3.001	500	CHLORPHENIRAMINE MALEATE 4MG	TAB 4MG	5.75	0.26
6.101	300	MEBENDAZOLE 100MG TABLET	TAB 100MG	291.00	13.30
6.201	200	METRONIDAZOLE 200MG TABLET	TAB 200MG	21.00	0.96
6.316	20	PROCAINE PENICILLIN FORTIFIED	POW 300MG+100MG/VIAL	46.00	2.10
6.326	350	SULFAMETHOXAZOL 400+TRIMETHOPRIM 80	TAB 400MG+80MG	104.55	4.78
6.328	10	SULFAMETHOXAZOL 200+TRIMETHOPRIM 40	STR 200MG+40MG/5ML	47.50	2.17
6.701	500	CHLOROQUINE 150MG BASE TABLETS	TAB 250MG=150MG BASE	115.00	5.26
10.101	2,000	FERROUS SULPHATE + FOLIC ACID	TAB 60MG+0.25MG	250.00	11.43
13.202	5	NEOMYCINE 5MG + BACITRACIN 500 IU	ONT 5MG + 500IU IUB	18.70	0.85
13.601	4	BENZYL BENZOATE 25% EMULSION	EMU 25%, PL BTL	14.00	0.64
17.101	200	ALUMINIUM HYDROXIDE (COMP.) TABLET	TAB 500MG	24.80	1.13
17.621	100	ORAL REHYDRATATION SALTS FOR 1000CC	POW FOR 1 LITRE	200.00	9.14
21.101	30	OXYTETRACYCLINE 1% EYE OINTMENT	ONT 1%, 3.5MG IUB	57.00	2.61
25.201	250	TRIPROLIDINE + PSEUDOEPHEDRINE	TAB 2.5MG+60MG	70.50	3.22
26.204	50	WATER FOR INJECTIONS	AMP 2ML	29.00	1.33
27.201	1,000	MULTIVITAMINE COMPOUND	TAB/CAPS COMPOUND	396.00	18.10
29.132	2	STRINGE HYPO LUER DISP.2CC,WITH NED	2CC, 1CC GRADUATED	2.50	0.11
29.133	2	STRINGE HYPO LUER DISP.5CC,WITH NEE	2CC, 1CC GRADUATED	0.00	0.00
29.223	15	NEEDLE, HYPO, LUER, DISPOSABLE 21G	21G(or 22G) x 1 1/2"	7.50	0.34
29.224	15	NEEDLE, HYPO, LUER, DISPOSABLE 19G	19G(or 20G) x 1.5"	6.45	0.29
32.205	5	RAZOR BLAD DOUBLE EDGE INF.QUAN	PIECE	5.00	0.23
33.311	5	CREPE BANDAGE ROLL	4.5M x 10CM	45.00	2.06
33.321	3	GAUZE BANDAGES 3"	ROLL, ONE DOZEN	42.75	1.95
33.331	1	ABSORBANT GAUZE FOR COMPRESSES	20 YARD	42.00	1.92
33.332	1	COTTON HYDROPHILIC ROLL	ROLL 500GMS	6.99	0.32
33.341	5	TRIANGULAR BANDAGE	100CM SIDES	20.25	0.93
33.351	2	ADHESIVE TAPE 1"	1 ROLL	9.20	0.42
33.352	1	ADHESIVE TAPE 3"	ROLL	13.29	0.61
33.502	2	TOILET SOAP	1 PIECE 115GMS	7.00	0.32
99.301	500	PACKET FOR MEDICINE	CMX CM	36.00	1.65
** Total ***				2017.41	92.20

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PAGE NO. 1
03/06/91

Management Sciences for Health / Pakistan
Basic Health Worker - B1 Carton

Product Identification Number	Total Counting Units	Generic Name	Counting Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
2.111	1,000	ACETAMINOPHEN 500MG TABLETS	TAB 500MG	81.70	3.71
2.141	20	PENTAZOCINE 30MG/ML SOLUTION	AMP 30MG x 1ML	214.52	9.80
3.001	500	CHLORPHENIRAMINE MALEATE 4MG	TAB 4MG	5.75	0.21
6.101	300	MEBENDAZOLE 100MG TABLET	TAB 100MG	291.00	13.36
6.201	200	METRONIDAZOLE 200MG TABLET	TAB 200MG	21.00	0.96
6.316	20	PROCAINE PENICILLIN FORTIFIED	POW 300MG+60MG/VIAL	46.00	2.10
6.326	350	SULFAMETHOXAZOL 400+TRIMETHOPRIM 80	TAB 400MG+80MG	104.55	4.78
6.328	10	SULFAMETHOXAZOL 200+TRIMETHOPRIM 40	SYR 200MG+40MG/5ML	47.50	2.17
6.701	500	CHLOROQUINE 150MG BASE TABLETS	TAB 250MG+150MG BASE	115.00	5.26
10.101	2,000	FERROUS SULPHATE + FOLIC ACID	TAB 60MG+0.25MG	250.00	11.43
13.201	2	GENTIAN VIOLET POWDER	POW 100GMS	15.70	0.72
13.202	5	NEOMYCINE 5MG + BACITRACIN 500 IU	OINT 5MG + 500IU TUB	18.70	0.85
13.601	4	BENZYL BENZOATE 25% EMULSION	EMU 25%, ML BTL	14.00	0.64
15.001	1	CHLORHEXIDINE 1.5% + CETRIMIDE 15%	SOL 1.5%+15%, 2.5 L	50.00	2.29
15.003	1	POVIDONE-IODINE 10%	SOL 10%, 500ML	52.49	2.40
17.101	200	ALUMINIUM HYDROXYDE (COMP.) TABLET	TAB 400MG	24.80	1.13
17.621	100	ORAL REHYDRATATION SALTS FOR 1000CC	POW FOR 1 LITRE	200.00	9.14
21.101	30	OXYTETRACYCLINE 1% EYE OINTMENT	OINT 1%, 3.5MG TUB	57.00	2.61
25.201	250	TRIPROLIDINE + PSEUDOEPHEDRINE	TAB 2.5MG+60MG	70.50	3.22
26.204	50	WATER FOR INJECTIONS	AMP 2ML	29.00	1.33
27.201	1,000	MULTIVITAMINE COMPOUND	TAB/CAPS COMPOUND	396.00	18.10
28.301	3	BUCCAL THERMOMETER F/C	PIECE	42.00	1.92
29.132	2	SYRINGE HYPO LUER DISP.2CC,WITH NED	2CC, 1CC GRADUATED	2.50	0.11
29.133	2	SYRINGE HYPO LUER DISP.5CC,WITH NEE	2CC, 1CC GRADUATED	0.00	0.00
29.223	15	NEEDLE, HYPO, LUER, DISPOSABLE 21G	21G(or 22G) x 1 1/2"	7.50	0.34
29.224	15	NEEDLE, HYPO, LUER, DISPOSABLE 19G	19G(or 20G) x 1.5"	6.45	0.29
32.205	5	RAZOR BLAD DOUBLE EDGE INF.QUAN	PIECE	5.00	0.23
33.141	5	BOTTLE PLASTIC+ASSORTED SCREW CAP	125CC NARROW MOUTH	15.00	0.69
33.311	5	CREPE BANDAGE ROLL	4.5M x 10CM	45.00	2.06
33.321	3	GAUZE BANDAGES 3"	ROLL, ONE POUCH	42.75	1.95
33.331	1	ABSORBANT GAUZE FOR COMPRESSES	20 TAND	42.00	1.92
33.332	1	COTTON HYDROPHILIC ROLL	ROLL 300GMS	6.90	0.32
33.341	5	TRIANGULAR BANDAGE	100CM SIDES	20.25	0.93
33.351	2	ADHESIVE TAPE 1"	1 ROLL	9.28	0.42
33.352	1	ADHESIVE TAPE 3"	ROLL	13.29	0.61
33.501	1	NAILBRUSH FOR SURGEON, NYLON HAIR	8CM x 2.5CM	6.00	0.27
33.502	2	TOILET SOAP	1 PIECE 113GMS	8.00	0.37
99.101	2	"GREEN BOOK"	PIECE	40.00	1.83
99.301	500	PACKET FOR MEDICINE	CM x CM	36.00	1.65
** Total ***				2433.17	112.12

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MCH POST RESUPPLY

	Quantity	List of Items
Category: BHW 6 Month Resupply		
a: Kit D-1	1	Attachment-1
b: Kit D	5	Attachment-2
c: Dai Kits	8	Attachment-5
Category: Health Records		
Antenatal/Labour/Postnatal Record	100	Attachment-8A
Child Health Chart	100	Attachment-8B (samples)
Category: FHW Training Items		
FHW Shoulder Bags	8	
FHW Certificates (to be prepared)	10	
Category: MCH (Pregnancy Testing) Lab Kit-Resupply	1	Attachment-10B
Category: Additional Pharmaceutical Supplies		Attachment-11
Category: Delivery Packets	75	Attachment-12

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Product Identi-fication Number.	Total Number Counting Units	Generic Name	Covating Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
2.111	1,000	ACETAMINOPHEN 500MG TABLETS	TAB 500MG	81.70	3.31
2.141	20	PENTAZOCINE 30MG/ML SOLUTION	AMP 30MG x 1ML	234.52	9.50
3.001	500	CHLORPHENIRAMINE MALEATE 4MG	TAB 4MG	7.25	0.29
6.101	300	MEBENDAZOLE 100MG TABLET	TAB 100MG	291.08	11.79
6.201	200	METRONIDAZOLE 200MG TABLET	TAB 200MG	35.00	1.42
6.316	20	PROCAINE-PENICILLIN FORTIFIED	POW 300MG+60MG/VIAL	49.60	2.01
6.326	350	SULFAMETHOXAZOL 400+TRIMETHOPRIM 80	TAB 400MG+80MG	104.55	4.24
6.328	10	SULFAMETHOXAZOL 200+TRIMETHOPRIM 40	STR 200MG+40MG/5ML	47.50	1.92
6.701	500	CHLOROQUINE-150MG BASE-TABLETS	TAB 250MG=150MG BASE	114.50	4.64
10.101	2,000	FERROUS SULPHATE + FOLIC ACID	TAB 60MG+0.25MG	206.00	8.35
13.201	2	GENTIAN VIOLET POWDER	POW 100GMS	16.50	0.67
13.202	5	NEOMYCINE 5MG + BACITRACIN 500 IU	OMT 5MG + 500IU TUB	18.70	0.76
13.601	4	BENZYL BENZOATE 25% EMULSION	EMU 25%, ML BTL	14.00	0.57
15.001	1	CHLORHEXIDINE 1.5% + CETRIMIDE 15%	SOL 1.5%+15%, 2.5 L	50.00	2.03
15.003	1	POVIDONE-IODINE 10%	SOL 10%, 500ML	52.49	2.13
17.101	200	ALUMINIUM HIDROXIDE (COMP.) TABLET	TAB 400MG	24.80	1.00
17.621	100	ORAL REHYDRATATION SALTS FOR 1000CC	POW 10% 1 LITRE	200.00	8.10
21.101	30	OXYTETRACYCLINE 1% EYE OINTMENT	OMT 1%, 3.5MG TUB	60.00	2.43
25.201	250	TRIPROLIDINE + PSEUDOEPHEDRINE	TAB 2.5MG+60MG	75.00	3.04
26.204	25	WATER FOR INJECTIONS	AMP 2ML	14.37	0.58
27.201	1,000	MULTIVITAMINE COMPOUND	TAB/CAPS COMPOUND	481.60	19.51
28.301	3	BUCCAL THERMOMETER F/C	PIECE	42.00	1.70
29.132	2	SYRINGE HYPO LUER DISP.2CC,WITH RED	2CC, 1CC GRADUATED	2.50	0.10
29.133	2	SYRINGE HYPO LUER DISP.5CC,WITH RED	2CC, 1CC GRADUATED	2.50	0.10
29.223	15	NEEDLE, HYPO, LUER, DISPOSABLE 21G	21G(or 22G) x 1 1/2"	6.30	0.26
29.224	15	NEEDLE, HYPO, LUER, DISPOSABLE 19G	19G(or 20G) x 1.5"	6.75	0.27
32.205	5	RAZOR BLAD DOUBLE EDGE INF.GUAR	PIECE	2.82	0.11
33.161	5	BOTTLE PLASTIC+ASSORTED SCREW CAP	125CC NARROW MOUTH	17.50	0.71
33.311	5	CREPE BANDAGE ROLL	4.5M x 10CM	42.00	1.70
33.321	3	GAUZE BANDAGES 3"	ROLL, ONE DOZEN	42.75	1.73
33.331	1	ABSORBANT GAUZE FOR COMPRESSES	20 TAPD	40.00	1.62
33.332	1	COTTON HYDROPHILIC ROLL	ROLL 300GMS	10.40	0.42
33.341	5	TRIANGULAR BANDAGE	100CM SIDES	20.00	0.81
33.351	2	ADHESIVE TAPE 1"	1 ROLL	9.50	0.38
33.352	1	ADHESIVE TAPE 3"	ROLL	13.60	0.55
33.501	1	NAILBRUSH FOR SURGEON, NILON HAIR	8CM x 2.5CM	6.00	0.24
33.502	2	TOILET SOAP	1 PIECE 113GMS	7.40	0.30
99.121	2	"GREEN BOOK"	PIECE	40.00	1.62
99.301	500	PACKET FOR MEDICINE	CMX CM	37.50	1.52
** Total ***				2528.60	102.46

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Management Sciences for Health / Peshawar
Basic Health Worker - D Carton - 5 Cartons for Resupply 6 month

roduct denti- cation uaber.	Total Number Counting Units	Generic Name	Counting Unit Specifications	Cost in Pakistani Rupees.	Cost in US $
2.111	1,000	ACETAMINOPHEN 500MG TABLETS	TAB 500MG	81.70	3.31
3.001	500	CHLORPHENIRAMINE MALEATE 4MG	TAB 4MG	7.25	0.29
6.101	300	MEBENDAZOLE 100MG TABLET	TAB 100MG	291.00	11.79
6.201	200	METRONIDAZOLE 200MG TABLET	TAB 200MG	35.00	1.42
6.316	20	PROCAINE PENICILLIN FORTIFIED	POW 300MG+60MG/VIAL	49.60	2.01
6.326	350	SULFAMETHOXAZOL 400+TRIMETHOPRIM 80	TAB 400MG+80MG	[illegible].55	4.24
6.328	10	SULFAMETHOXAZOL 200+TRIMETHOPRIM 40	STR 200MG+40MG/5ML	47.50	1.92
6.701	500	CHLOROQUINE 150MG BASE TABLETS	TAB 250MG=150MG BASE	114.50	4.64
10.101	2,000	FERROUS SULPHATE + FOLIC ACID	TAB 60MG+0.25MG	206.00	8.35
13.202	5	NEOMICINE 5MG + BACITRACIN 500 IU	ONT 5MG + 500IU 1%	18.70	0.76
13.601	4	BENZYL BENZOATE 25% EMULSION	EMN 25%, [illegible] OIL	14.00	0.57
17.101	200	ALUMINIUM HYDROXIDE (COMP.) TABLET	TAB 400MG	24.80	1.00
17.621	100	ORAL REHYDRATATION SALTS FOR 1000CC	POW FOR 1 LITRE	200.00	8.10
21.101	30	OXYTETRACYCLINE 1% EYE OINTMENT	ONT 1%, 3.5MG IU	60.00	2.43
25.201	250	TRIPROLIDINE + PSEUDOEPHEDRINE	TAB 2.5MG+60MG	75.00	3.04
26.204	25	WATER FOR INJECTIONS	AMP 2ML	14.37	0.58
27.201	1,000	MULTIVITAMINE COMPOUND	TAB/CAPS COMPOUND	481.60	19.51
29.132	2	SYRINGE HYPO LUER DISP.2CC,WITH RED	2CC, 1CC GRADUATED	2.50	0.10
29.133	2	SYRINGE HYPO LUER DISP.5CC,WITH RED	2CC, 1CC GRADUATED	2.50	0.10
29.223	15	NEEDLE, HYPO, LUER, DISPOSABLE 21G	21G(or 22G) x 1 1/2"	6.30	0.26
29.224	15	NEEDLE, HYPO, LUER, DISPOSABLE 19G	19G(or 20G) x 1.5"	6.75	0.27
32.205	5	RAZOR BLAD DOUBLE EDGE INF.QUAN	PIECE	2.82	0.11
33.311	5	CREPE BANDAGE ROLL	4.5MX10CM	42.00	1.70
33.321	3	GAUZE BANDAGES 3"	ROLL, ONE DOZEN	42.75	1.73
33.331	1	ABSORBANT GAUZE FOR COMPRESSES	20 TABO	40.00	1.62
33.332	1	COTTON HYDROPHILIC ROLL	ROLL 300GMS	10.40	0.42
33.341	5	TRIANGULAR BANDAGE	100CM SIDES	20.00	0.81
33.351	2	ADHESIVE TAPE 1"	1 ROLL	9.50	0.38
33.352	1	ADHESIVE TAPE 3"	ROLL	13.60	0.55
33.502	2	TOILET SOAP	1 PIECE 115GMS	7.40	0.30
99.301	500	PACKET FOR MEDICINE	CAR CA	37.50	1.52
** Total ***				2069.59	83.86

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مسلسل نمبر

CHILD HEALTH CHART

د کوچنی نوم	
د کورنۍ د مشر نوم	
د تولد ځای	
د زیږېدنې نېټه	
د کوچنیانو تعداد	
مرو کوچنیانو تعداد	

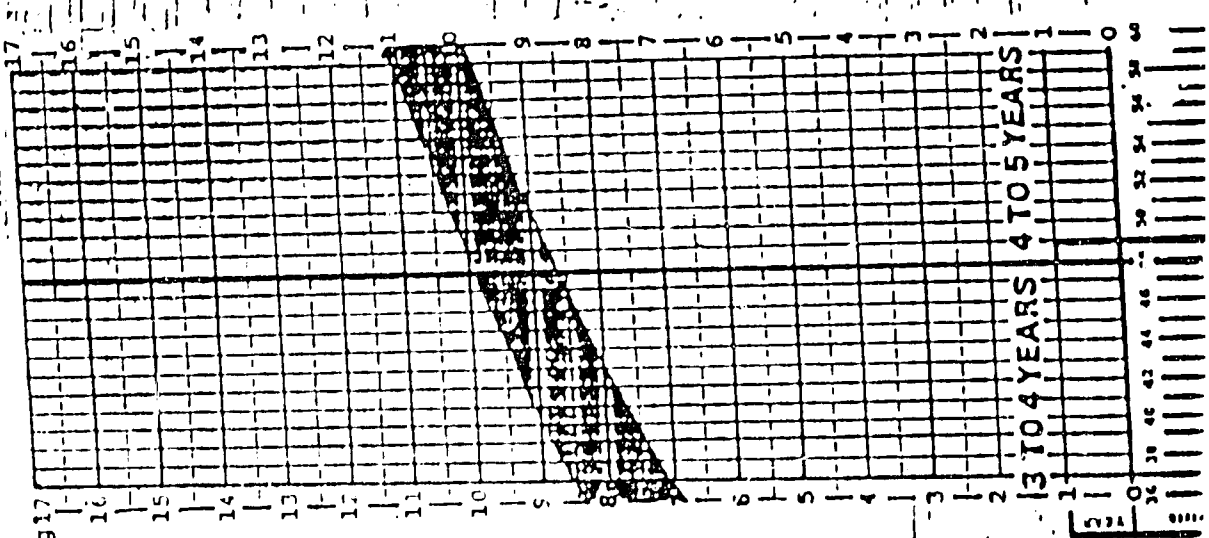
د ډېر کلنۍ څخه تر پنځه کلنۍ پورې د کوچنیانو د مټ اندازه			
نېټه	د 13 1/2 cm څخه زیات شین رنګ	د 12 1/2 cm د 13 1/2 cm ترمنځ سپین رنګ	د 12 1/2 cm څخه کمه سور رنګ

•	دا وزن په چارت کې ولیکئ
	دراتلونکې معاینې لپاره ورځې وعده تعین کړئ
••	دا وزن په چارت کې ولیکئ
	دراتلونکې معاینې لپاره ورځې وعده تعین کړئ
	د UHU ډاکټر ته یې معرفي کړئ

	هو	نه
آیا دا کوچنی غیرقانونی دی؟		
آیا دا کوچنی یتیم دی؟		
آیا کوچنی د پولیو په شدې تلاښه کېږي؟		
آیا دا سارزم (خاصه مثلاً ...)		
په دې کورنۍ کې د سل (لوی رنګ) ناروغ شته؟		

که چېرې کوم خاص اجتماعي مشکل ولري

ملیک



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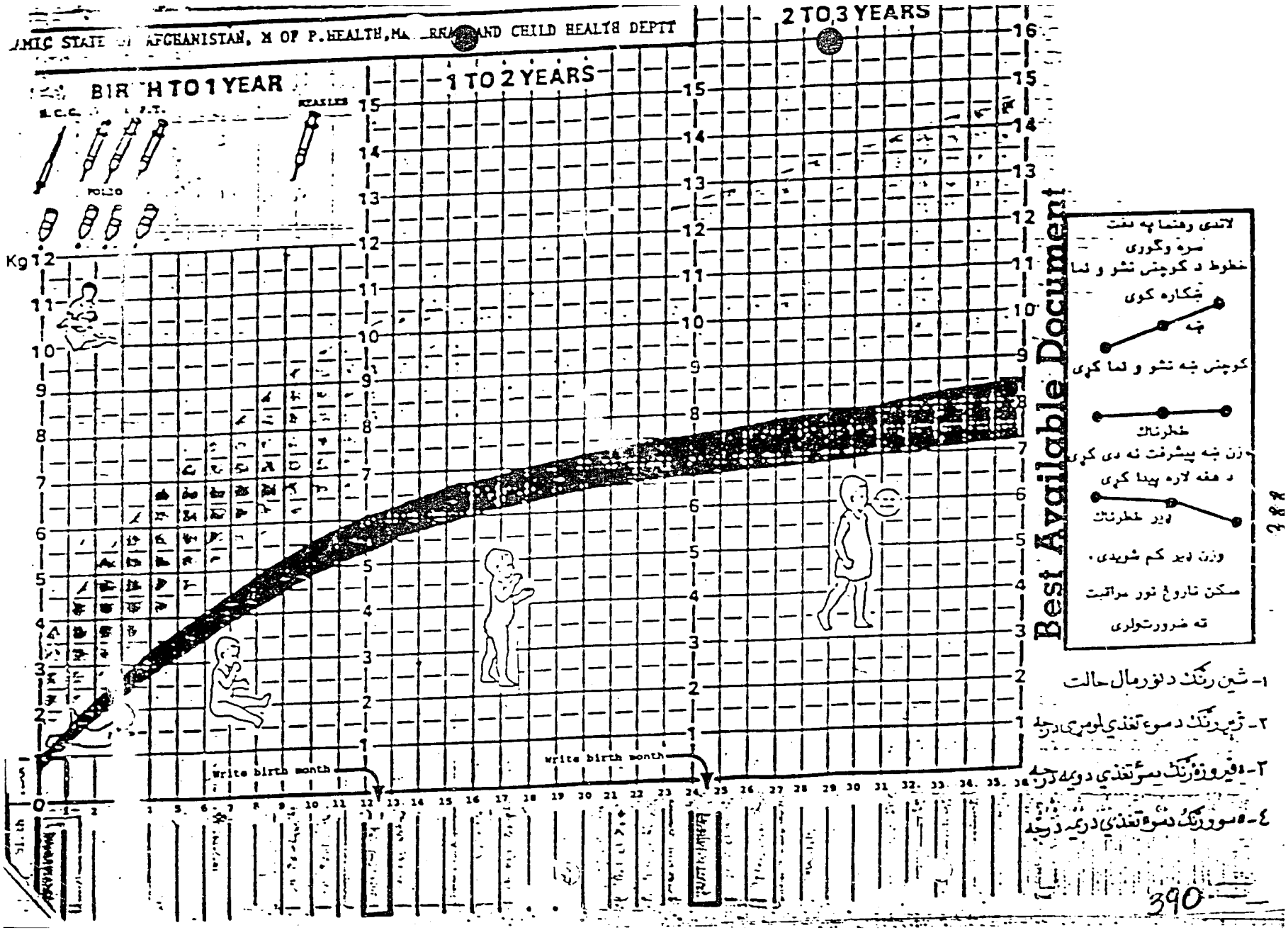
AMIC STATE OF AFGHANISTAN, M OF P.HEALTH, MA REH AND CHILD HEALTH DEPTT
BIRTH TO 1 YEAR
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لاندی وهنما په نغت
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خطوط د کوچنی نشو و نما
ښکاره کوی
ښه
کوچنی ښه نشو و نما کړی
خطرناک
وزن ښه پیشرفت نه دی کړی
د هغه لاره پیدا کړی
لږ خطرناک
وزن لږ کم شویدی.
مسکن ناروغ نور مراقبت
ته ضرورتولری
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۱- شین رنګ د نورمال حالت
۲- زړه رنګ د سوء تغذي لومړی درجه
۳- فیروزه رنګ د سوء تغذي دویمه درجه
٤- سور رنګ د سوء تغذي دریمه درجه
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Management Sciences for Health / Pashaur

MCH-KIT

LAB. Resupply

Attachment 10B

Product Identification Number.	Total Number Counting Units	Generic Name	Counting Unit Specifications.	Cost in Pakistani Rupees.	Cost in US $
39.525	2	PREGNANCY TEST STRIPS	BOTTLE OF 70 STRIPS	200.00	8.12
41.124	3	HAEMOGLOBINOMETER PIPETTE	WITH PIPETTE 2 TUBES	73.50	2.98
41.125	1	HAEMOGLOBINOMETER SET	HAEMOMETER SMALL	190.00	7.71
41.624	2	BEAKER 50ML	GLASS PIECE	120.00	4.87
41.626	1	BEAKER 500ML	GLASS PIECE	129.00	5.24
41.704	2	UROSTIX	BOTTLE OF 100 STP	516.00	20.95
41.732	3	ETHANOL,76 %	SOL 200ML	825.00	33.50
41.755	2	HYDROCHLORIC ACID CONC.	SOL 200ML	15.86	0.64
41.765	1	BLOOD LANCETS(FEATHER)	200 PCS	98.00	3.98
41.805	1	LAB.RECORD BOOK,WITH FILE COVERS	WHITE SHEETS 2 REMS	475.00	19.29
41.123	2	MARKER BLACK	3 PAKT.BLACK MARKERS	16.00	0.65
[illegible]				2658.36	107.93

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Attachment 11

ADDITIONAL PHARMACEUTICAL SUPPLIES

	QUANTITY	PRODUCT #
Lidocain 2% solution	60	1.203
Methargin liquid	80 (inj)	22.001
Amoxycillin capsules	2000	6.318
Nystatine 100,000 IU tab	2000	6.501
Oral Rehydration Salts (Additional)	200	17.621
Dihydohydraxiconaline or Metronidazol	2500 vag.tabs	"
Oxytetracycline	2500 vag.tabs	
Arm circumference bands	10 bands	

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DELIVERY PACKETS

3 piece of cotton string	(Prod # 33.349)
1 razor blade	(Prod # 32.305)
1 miniature soap bar	
1 polytene bag in which to pack the above items and seal	

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