BASIC HEALTH EDUCATION
FOR AFGHAN CHILDREN

TRAINING MANUAL

The International Federation of
Red Cross and Red Crescent Societies and
The Afghan Red Crescent Society
BASIC HEALTH TRAINING MANUAL

For the
INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETIES

written and compiled by:

Pippa J. Bradford

Pakistan 1992
INTRODUCTION

Basic Health Training is health education for Afghan children. It is designed to increase children's understanding of how disease, their environment and their actions all involve one another. It focuses on the most critical health problems facing the Afghan population and promotes healthy behaviour aimed at reducing the high incidence of preventable disease among Afghans.

The Programme aims to provide Afghan youngsters with the information needed to lead healthy lives.

Development of The Basic Health Training Programme was begun in Pakistan in 1989 by the International Federation of Red Cross and Red Crescent Societies and the Pakistan Red Crescent Society in collaboration with Save the Children Fund (UK). The Basic Health Training Material has undergone two years of field testing and improvements and consists of The Basic Health Training Manual, The Basic Health Teacher's Guide and the accompanying Basic Health Flipchart.

The Basic Health Training Manual is a reference manual for Health Educators involved in the training of Afghan children. It is the companion guide to the Basic Health Teacher's Guide; a compilation of 19 lesson plans designed for children from ages six to thirteen.

A Special Note to Teachers:

As teachers using this manual you will be introduced to the concept of Primary Health Care and the very important role you play as Health Educators. The Manual also provides background information about the subjects that are taught by Basic Health Educators. Be cautious to use the information with discretion. Children should not be overwhelmed but they learn quickly and should be given as much information as they can gather.

Use the Basic Health Teacher's Guide as a guide and adapt your lessons according to the needs and abilities of your students.

Your school or community should not be without a Basic Health Educator. If you move on, train another Educator to take your place and leave the Basic Health Training Material with him.
ACKNOWLEDGEMENTS

Effort has been made, large and small, by a great many people toward the development of the Basic Health Training Material. The author would like express appreciation to all those that have contributed to its development over the past two years.

Special thanks are due to:

Save the Children Fund (UK) especially Marilyn McDonagh, Iftekhar Akhmed and those in the Teaching Aids Department For struggling over Curriculum, Teaching Aids and Programme Development.

The International Rescue Committee For the translation and graphical presentation of the Basic Health Training Manual and Teacher’s Guide.

The World Health Organisation For contributing the funds for printing the Basic Health Training Material.

Marilyn McDonagh, Helen Murphy and Dr. Obaid Islam For editing.

The International Federation of Red Cross and Red Crescent Societies' Health Educators Abdul Saboor, Mohammed Rasul, Mohammed Raffiq, Saeed Mohammed, Abdul Chyour, Saeed Rasul, Saeed Maruf, Mohammed Akram, Bismullah, Ashaquallah, Abdul Quadir, Khairullah and Hilal Akhmed For their unfailing support, their energy and enthusiasm and their invaluable advise and recommendations.
### Basic Health Training Program - Curriculum

#### Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>Chapter 1 - An Ounce of Prevention is Worth a Pound of Cure</td>
<td></td>
</tr>
<tr>
<td>1. What is Health?</td>
<td>1.1</td>
</tr>
<tr>
<td>2. What is Primary Health Care?</td>
<td>1.2</td>
</tr>
<tr>
<td>3. What is Health Education?</td>
<td>1.4</td>
</tr>
<tr>
<td>4. What is a Basic Health Message?</td>
<td>1.5</td>
</tr>
<tr>
<td>5. Primary Health Care and Afghans</td>
<td>1.6</td>
</tr>
<tr>
<td>Chapter 2 - Teaching Basic Health</td>
<td></td>
</tr>
<tr>
<td>1. How People Learn</td>
<td>2.1</td>
</tr>
<tr>
<td>2. Communication</td>
<td>2.3</td>
</tr>
<tr>
<td>One-way and Two-way Communication</td>
<td></td>
</tr>
<tr>
<td>Verbal and Non-Verbal Communication</td>
<td></td>
</tr>
<tr>
<td>3. Helping People Learn</td>
<td>2.4</td>
</tr>
<tr>
<td>4. Teaching Methods</td>
<td>2.5</td>
</tr>
<tr>
<td>Question and Answer</td>
<td></td>
</tr>
<tr>
<td>Demonstrations</td>
<td></td>
</tr>
<tr>
<td>Story Problems</td>
<td></td>
</tr>
<tr>
<td>Role Playing</td>
<td></td>
</tr>
<tr>
<td>5. Basic Health Messages</td>
<td>2.9</td>
</tr>
<tr>
<td>6. Lesson Plans</td>
<td>2.9</td>
</tr>
<tr>
<td>7. Teaching Aids</td>
<td>2.11</td>
</tr>
<tr>
<td>What are Visual Aids?</td>
<td></td>
</tr>
<tr>
<td>Different Kinds of Teaching Aids</td>
<td></td>
</tr>
<tr>
<td>Design Considerations for Good Teaching Aids</td>
<td></td>
</tr>
<tr>
<td>Using Teaching Aids</td>
<td></td>
</tr>
<tr>
<td>Chapter 3 - Causes of Disease and Health Problems</td>
<td></td>
</tr>
<tr>
<td>1. Disease</td>
<td>3.1</td>
</tr>
<tr>
<td>2. Cultural Beliefs</td>
<td>3.2</td>
</tr>
<tr>
<td>3. The Physiological Causes of Disease</td>
<td>3.2</td>
</tr>
<tr>
<td>4. The Chain of Infection</td>
<td>3.4</td>
</tr>
<tr>
<td>5. Breaking the Chain of Infection</td>
<td>3.5</td>
</tr>
<tr>
<td>6. Our Bodies: Our Natural Defence Against Disease</td>
<td>3.6</td>
</tr>
</tbody>
</table>
Chapter 2 - Teaching Basic Health

Chapter 4 - Clean Body, Clean Home, Clean Community

1. Clean Body
   Personal Hygiene
   Dental Hygiene
2. Clean Water and Clean Food
   Clean Water
   How to Protect a Clean Water Supply
   How to Keep Household Water Clean
3. Clean Community
   Safe, Clean Latrines
   Burning or Burying Garbage

Chapter 5 - Food and Health

1. The Three Food Groups
2. Malnutrition
   What is Malnutrition?
   Causes of Malnutrition
3. Eating a Well-Balanced Meal
   Doesn't Have to Cost A Lot

Chapter 6 - Disease and Disease Prevention

1. Diarrhea and Dehydration
2. Acute Respiratory Infection
3. Malaria
4. Worms
5. Immunisation
6. Tuberculosis
7. Measles
8. Polio
9. Tetanus

Chapter 7 - Injury Prevention and the Misuse of Medicines

1. Burns
2. Wounds
3. The Use and Misuse of Medicine

Chapter 8 - Maternal and Child Health

1. Maternal Health
2. Child Health
3. Vaccination
4. Care of the Sick Child
Chapter 9 - Working with the Community: Community Health Committees

1. Communities
2. Health and the Community
3. Community Health Committees
4. Selecting a Community
5. Getting to Know the Community
6. Forming Health Committees
7. Working with Health Committees
8. Plan of Action
9. Role Playing
OBJECTIVES:

By the end of Chapter 1 the learner will be able to:

1. Provide 2 different definitions of Health.
2. State the difference between 'medical care' and 'health care'.
3. Describe Primary Health Care and name its 8 components.
4. Describe Health Education's role in Primary Health Care.
5. Define a Basic Health Message and give examples.
6. Discuss the role of Primary Health Care in health care for Afghans.

1.1 WHAT IS HEALTH?

Think about this question carefully. As a Community Health Educator all aspects of your job are related to 'Health' and your concept of it will affect how and what you teach.

It is a difficult term to define and different people will provide different answers depending on their points of view. Ask a blind man and he may reply, "To see the road that lies ahead". A young mother may answer: "a child with fat and rosy cheeks" or someone may simply answer: "its the way I feel".

'Health' means two different things and is understood in two different ways. The first way to define 'Health' is as a condition; it is the overall state a person is in. A man maybe described as being in 'a poor state of health', or in 'good health'. By this definition 'Health' is seen as a spectrum along which a person’s condition lies somewhere between very poor and excellent. This is what is meant when a person responds to the question "What is Health?" with the answer "It is the way I feel".

THE SPECTRUM OF HEALTH:

| POOR CONDITION ——> | EXCELLENT CONDITION —< |

The second definition of 'Health' is what the World Health Organisation (WHO) intends when it speaks of "Health for all by the Year 2000". It is the meaning we give to 'Health' throughout the rest of this text. In this context 'Health' describes a level of well-being or:
OPTIMAL FUNCTIONING WITH FREEDOM FROM DISEASE

Now we speak in terms of a person being 'healthy' or 'not healthy'. A person is considered healthy if his or her state of health: physical, mental and spiritual; does not hamper a person's ability to reach his full potential.

In 1977 all nations of the WHO joined together and selected The Year 2000 as the date when all members of the global community will be 'healthy'. To achieve "Health for All by the Year 2000" requires that those of us working in the field of health reach way out from our hospitals and offices, deep, deep into the communities and right down directly to the children. The strategy to bring about this goal agreed on by the nations of the WHO is the application of Primary Health Care.

1.2 WHAT IS PRIMARY HEALTH CARE?

What is the difference between 'medical care' and 'health care'? The answer is the key to understanding what Primary Health Care is all about. Ponder the following short tale:

In a small village in Afghanistan there lived a doctor. For many years the doctor had been dispensing tablets to the children of the village who continually arrived at his clinic with hookworm. The cycle of the hookworm remained unbroken. From the faeces which lay on the ground the worms would depart and enter the children through the soles of their bare feet. Once cured, the children quickly became reinfected from the faeces that continued to be found on the ground.

One day a Community Health Educator arrived at the village. He began work in the community; teaching about environmental hygiene and worms, explaining the importance of proper latrines and shoes for the children. Gradually the villagers began to build latrines in their community and provide shoes for their children. Gradually also, the number on children arriving at the clinic with hookworm grew less and less. The cycle had been broken.

Now it is important to ask yourselves these questions about the story:
Who was delivering 'medical care'?
Who was delivering 'health care'?
and again; What is the difference between 'medical' and 'health' care?
Medical Care is the care given to a person who is ill to help them recover. Health Care is the care given an ill person to help them recover and the means by which further illness can be avoided.

Primary Health Care is a systematic approach to the delivery of comprehensive health care. It is the method the WHO has adopted to try to achieve "Health for all by the Year 2000".

Primary Health Care has eight essential components: water and sanitation, mother and child health, nutrition, immunisation, provision of essential drugs, treatment of common diseases, control of endemic diseases and health education. Each one of these components plays an important role in the achievement of 'wellness' but they should not be separated from one another. They are interdependent. For example, nutrition and immunisation are essential elements in the health of mother and children. As an 'educator' the Community Health Educator (CHE) must have a sound understanding of water and sanitation, mother and child health, nutrition and immunisation. Portions of this manual are dedicated to each of these topics. Most importantly the CHE will have a comprehensive understanding of Health Education.
1.3 WHAT IS HEALTH EDUCATION?

Health Education is one of the eight elements of Primary Health Care (PHC). Diagram 1.1 shows these elements arranged in a circle with Health Education taking the prominent position in the centre. The diagram depicts a very important concept:

**HEALTH EDUCATION IS CENTRAL TO AN EFFECTIVE PRIMARY HEALTH CARE PROGRAMME**

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.
1.4 WHAT IS A BASIC HEALTH MESSAGES?

A Basic Health Message is a summary of 'must know' health information. It is what is left when all non essential information is stripped away. It is simple, practical and appropriate. It is the information that is vital to health and the information that you want the students to remember and act on. It is also the information that you most want spread throughout the community.

An example of a message is:

"Everyone, most importantly children, should be protected from mosquito bites especially at night"

This is a simple message but it summarises several key points. In this case:

- mosquitoes carry malaria which they infect people with through their bites
- malaria is a dangerous disease which kills
- mosquitoes are most active during the night
- malaria is especially dangerous for children

Basic Health Messages are based on the Primary Health Messages developed by the WHO and UNICEF and adapted and adopted by United Nations High Commission for Refugees (UNHCR)/Commissionerate for Afghan Refugees (CAR) for the Afghan refugee health programme.

1.5 PRIMARY HEALTH CARE AND AFGHANS

Primary Health Care is the strategy that the WHO has proposed to achieve "Health for All". PHC is a flexible system and it is important to realise that it needs to be applied according to the health conditions of the people that it is intending to serve. It must be adapted to the health problems, the culture, the way of life and stage of development reached by the community.

As Community Health Educators working with Afghan children and Health Committee members, it is important to consider how a Primary Health Care system can best benefit the Afghan community as a whole.

First let us start by looking at the health status of Afghans from a global perspective:

According to UNICEF's 1989 State of the World's Children report, Afghanistan has the lowest child survival rate in the World. Only 70% of the children born in Afghanistan will survive to the age of five years.
Based on 1989 figures, Afghanistan had the highest under five mortality rate (304 per 1,000 live births), the highest infant (under one year) mortality rate (182 per 1,000 live births), and the lowest life expectancy rate (40.5 to 42 years).

The leading causes of death in infants continues to be acute respiratory infection, acute diarrhea and malnutrition. In children 1-5 years of age the highest rate of mortality is due to acute diarrhea, acute respiratory infection, malnutrition, measles, tetanus, diptheria, pertussis, and poliomyelitis.

In the early seventies it was recorded that women over 45 had an average of over 9 children born to them but only 6 were still living. Afghan refugee camp surveys conducted in the mid 1980's report the highest total fertility rates ever recorded at close to 14 births per female.

Although it is understandable that Afghans value children and wish to have large families, mothers are at considerable risk after delivering five children, even when in excellent health.

In a 1988 survey of Afghan refugees in Pakistan showed 98% of deliveries were not attended by any trained assistance. According to the 1975 National Demographic Survey on Afghanistan, maternal mortality was approximately 640/100,000 live births. This is an exceptionally poor record compared to the rest of the world.

To summarise in simple, practical and appropriate terms (like a Basic Health Message) the major health problems facing Afghans are:

1. Extremely high infant and child mortality rates related to acute diarrhea, ART, malnutrition and diseases prevented by vaccines (e.g. polio, measles, tetanus).

2. Extremely high maternal morbidity and mortality related to the large number of pregnancies too close together, and the lack of good antenatal care with safe delivery practices.

3. Extremely low life expectancy rate in both women and men.

Discussed throughout this text are the interrelations between the different elements of PHC and the health problems of the Afghans both in Afghanistan and in refugees settlements in Pakistan. Diagram 1.2 shows how each element plays a role in combating the major health problems of
Afghans and how dependent all the elements are on Health Education.

Elements of PHC

- MCH
- Nutrition
- Immunisation
- Water and Sanitation

Chief Health Problems of Afghans

- Acute Diarrhea
- Acute Respiratory Infection
- Malnutrition
- Diseases Prevented w Vaccines

Diagram 1.2

Health Education designed for an Afghan PHC system must focus on these health problems and must promote all other elements of a PHC system aimed at improving health within the Afghan community.
OBJECTIVES:

By the end of Chapter 2 the learner will be able to:

1. List 10 different ways in which people learn and 7 different sources of learning information.
2. Explain the importance of 'active' learning.
3. Describe 2 different forms of communication.
4. List 4 approaches that facilitate learning.
5. Describe 4 different Teaching Methods.
6. Outline the format of a Lesson Plan.
7. Define Visual Aids and discuss 4 examples.
8. Discuss 6 design criteria for good Visual Aids and 5 considerations when using these aids.

2.1 HOW PEOPLE LEARN

Islam calls for Moslems to seek knowledge and education; education that would enlighten the individual and enriches the community:

"Educate your children for they are born for a time that is not yours"

Hadith Sharif

Most knowledge, attitudes and practises relating to health are not learned 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:
- by their own experience
- through observation
- thinking
- solving problems that arise in everyday life
- formal lessons
- by making mistakes
- reflecting on past experience
- adapting past experience to new situations
- listening to other people
- reading books, newspapers, magazines and instruction leaflets
- listening to the radio
- watching TV and videos

These are some of the people they learn from:
- 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 a wide range of situations in which people acquire new knowledge, skills and attitudes.

These points need to be reflected in our health education practices:
- 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 new 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.

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 prepare an oral rehydration solution (ORS):
- someone who is just told how to make up ORS will probably forget.
- someone who is told and watches a demonstration is more likely to understand how to do it and be able to do it again.
- someone who also makes ORS 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.

2.2 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:
- giving the learners the opportunity to ask questions,
- fully answering the learner’s questions,
- giving opportunity for the learners to discuss new ideas amongst 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 actively 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 choices and 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 communication between the teacher and the students.
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,
- 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 for them. The health educator should be an example for the learners.

2.3 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 something which interests them and is important and relevant to them.
- new knowledge builds on their existing knowledge, and does not conflict with their deeply held beliefs
- new information is presented in a relaxed atmosphere, without distraction or interruptions
- new information is presented by someone they respect and feel they can trust.
All adults have a lot of experiences in life. They have 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.

2.4 TEACHING METHODS

Question and Answer
Questions are asked for many reasons. They are a most useful teaching tool and can be used to provide information to both the teacher and the students. The Question and Answer technique can also serve to involve people; but for this to work, the right question needs to be asked in the right way.

There are several different types of questions. A useful classification of types of questions is between open and closed questions:

<table>
<thead>
<tr>
<th>Closed questions have a limited number of answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes or No</td>
</tr>
<tr>
<td>Either/Or</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open questions have no limit on the number of answers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why/How/What/When</td>
</tr>
<tr>
<td>Feelings</td>
</tr>
<tr>
<td>Opinions</td>
</tr>
<tr>
<td>Suggestions</td>
</tr>
<tr>
<td>Descriptions</td>
</tr>
</tbody>
</table>

Questions can be used to elicit information, assess level of knowledge or level of understanding. Four important questioning techniques are:

1. Genuine questions asked by learners
2. Genuine questions asked by teachers
3. Testing questions
4. Teaching questions

Genuine Questions Asked by Learners
This type of question elicits information. The learner is seeking to understand. This the most genuine and important use of questions, because it means the health educator is giving learners information they really want.

Genuine Questions Asked by the Teacher
The health educator can ask questions to elicit information about the students' existing knowledge, attitudes and practices. 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 topics/messages are most important.

Example: How do you clean your teeth at home?

Testing Questions
The health educator asks questions to find out whether or not learners know the answers. With this type of question the questioner already knows the answer. Such questions are useful tools for assessing level of knowledge or how much has been learned and how effective teaching has been. This type of question must be used carefully and diplomatically so that the students do not feel embarrassed if they have not understood.

Example: (following up a vaccination lesson)
Why is vaccination important?

Teaching Questions
The health educator uses questions to encourage people to engage in a discussion about a health issue. The questions can also be used to raise peoples awareness of health problems. Teaching questions require the involvement of the learners and skill and self restraint of the educator.

Example: Where do you find flies outside the house?
- on garbage, faeces...
And where do you find flies inside the house?
- in the kitchen, on food...
Flies often walk up walls. How do they do this?
- sticky feet
So if flies land on faeces and have sticky feet and then come into the kitchen, what does this mean?...

Guidelines for use of questions:

1. Questions must be clear, simple and relevant.
2. Avoid: Rephrasing, repeating or answering a question before it is responded to. Changing a question halfway through. Indicating the person to answer before the question is asked.
3. Allow enough time for answers
4. Carefully sample the group. Don't restrict your questions to the few who always know the
5. Use questions to guide the group toward discovering new knowledge for themselves.
6. Never embarrass a person who gives a wrong answer by making an example of him in class.

**Demonstrations**
A demonstration involves performing actions in order to show learners the correct procedure. In a health education session, it should always be followed by a repeat of the actions by the students themselves. The two stages, the demonstration by the teacher and the return demonstration by the learners, are both essential.

| I do and I understand |

A demonstration means that learners are immediately able to put into practice what they have learned. People remember something they have seen and been actively involved in much better than something they have been told about. Suitable uses of the demonstration technique include:

- making up ORS
- bandaging a wound
- feeding a sick child
- hand washing with SOAP and water

**Story Problems**
A story problem is a tale told by the health educator that delivers health messages in a way that is relevant to the learners. It should include characters and situations that the learners can relate to. The story should be interesting and memorable—the participants should feel involved as the story unfolds. If it is enjoyable, they will be affected by what happens to the characters and will learn by the characters’ examples.

To make a story effective the story teller should relate the character’s actions to those of the audience. Learner should be able to make the distinction between actions that help solve a problem and those that do not, and adapt new problem-solving behaviours accordingly.

Story problems are used to pass on health messages in an informal way and in a realistic context. By choosing the best option for the character the student may adapt the same behaviours in a similar situation.
Health educators need to carefully review the message of a story and insure it is the one that is intended. If the story is unrelated to the learner, it is not likely he will make the association between the story and his own life. Health messages in a story should be obvious.

Guidelines for Stories
1. Stories should be in the context of the life of the learner.
2. A story should clearly deliver one relevant health message. More than one message per story creates confusion and blurs the message.
3. It should not be more than ten minutes long or include many characters; simplicity is best.
4. The story should be believable and interesting enough to provoke discussion.
5. It should be well prepared and memorised.

The story should be discussed with the learners afterwards. The health educator should find out what the learners felt the health message of the story was and what they learned from the characters.

Role Playing
Role playing is the acting out of a real-life situations by a learning group. No written scripts are needed. Each participant pretends he someone else and tries to act and behave as his character would.

Role plays make learners think about how best to apply the knowledge that they have learned. It reinforces teaching and allows the student to become an active participant in the learning process.

Guidelines of Role Plays:
1. The Role Play should pose some kind of health problem to the actors and try the learners problem-solving skills.
2. The Role Play should be well organised in advance.
3. It should include all members of a small group OR a limited number (3 to 4) in a large group.
4. The Role Play should not last longer than ten minutes.
5. The subject of the play should be relevant to the topic it has been chosen for. The experience the actors and audience gain should reinforce one health message.

The Role Play should be discussed with the learners afterward. The health educator should find out what the learners felt the health message of the Role Play was and what they learned from the exercise.
2.5 BASIC HEALTH MESSAGES

Basic Health Messages are short, simple, direct statement of a health fact. They are designed to provide knowledge about the fundamentals of preventative health care. The Basic Health Messages in the Basic Health Training Program target specifically the major health problems of the Afghan Refugee Community. If understood and practised, they can help improve and save lives. These messages are being used by health teachers at many levels and in many health programs dealing with the Afghan population in Pakistan. Effort has been made to use these Messages universally as a basis for understanding, to be built on as levels of knowledge are increased.

Community Health Educator are often introducing these ideas to learners for the first time. The Educator's role in the process is an important one because he is laying the groundwork for future learning and greater understanding.

Basic Health Messages can help improve and save lives

2.6 LESSON PLANS

A Lesson Plan is a document that outlines what will be taught. Basic Health Training Lesson Plans have been designed to provide the Community Health Educator with guidelines for teaching. These guidelines serve to insure:
- no important information about a subject is left out
- all students receive the same basic information
- coordination with other health training programs which reinforce or build on Basic Health Training

Format
An individual lesson plan has been designed for each of the 19 Basic Health Training Topics. Each session deals with one important health subject and each subject has 3 to 4 Basic Health Messages. The information listed first on the Lesson Plan include:

Subject
Time
Basic Health Messages
Teaching Aids
Evaluation

2-9
Subject
The subject refers to the topic the lesson plan will address.

Time
Time indicates the approximate duration of the Lesson.

Teaching Materials
All equipment that is required to teach the lesson is listed after "Teaching Materials". This is a useful reference when preparing for your class.

Text
The body of the Plan is provided in chart form. Each lesson begins with a review of the previous lesson. For each step in the lesson the Teaching Method, Duration and Teaching Aids (if required) have been listed.

Much of the information that is presented in the text is in the form of questions and answers. Students should be active participants throughout the lesson and questions and answers are a good approach to ensuring learner involvement.

The health educator should keep in mind that the lesson plan is meant as a guideline. Lessons must be adapted for learners from different age groups and with differing levels of knowledge. The information that is included in the session should be suitable for the participants. While adapting the lesson, the health educator must ensure that the Basic Health Messages remain the focus of what is taught.

The educator should also use imagination and ingenuity when preparing classes. He should use alternative teaching methods, design new teaching aids and make use of his teaching environment in ways that complement and enhance the lesson plan. The health educator should think in terms of how the message could be delivered better, rather than merely acting as the messenger.

2.7 TEACHING AIDS

What are Visual Aids?
Visual Aids are anything that help people to learn through seeing. Visual aids can use words, pictures or numbers. Sometimes they use only one; other times they use all three.
Visual Aids are useful whenever you want to help people learn and remember important information. They:

1) Can make something look larger so the students can see things they could not easily see otherwise. (Example: a picture of microscopic organisms)

2) Help us compare the similarities and differences between two things. (Example: a glass of clean water and a glass of water dirty from hand washing)

4) Provide a basis for discussion.

5) Can be used to review or test learners to see if they really understand. (Example: Watch how children help a sick child to drink using a foam doll.

6) Provide information that the trainer cannot present. (Example: A picture of a pregnant woman receiving a vaccination essential for healthy mother and child)

7) Are excellent ways to show the steps to follow in doing a task. (Example: making ORS)

8) Show learners something they may not see in real life. (Example: how to care for a burn)

9) Help learners discover solutions to problems.

10) Make a difficult idea easier to understand.

**Different Kinds of Teaching Aids**

1) Real Objects
Real Objects are the best kinds of teaching aids. They are easiest for learners to understand, relate to and remember and they are the most interesting. Unfortunately many real objects are too big or too expensive to use as classroom teaching aids.

Take learners on a field trip to view real objects that can’t be brought into the classroom.

2) Models
A model is a realistic three dimensional copy of something. Learners find three dimensional objects most appealing and when real objects are not suitable as teaching aids, models are often a good substitute.

A model is most easily recognised and understood when it is the same size as the original object. But
models are also very useful to show objects that are too large to bring to class or too small to see with the bare eye.

3) Flipcharts
Flipcharts are pictures on paper or cloth that illustrate a principle that the trainer is trying to convey. The pictures must be large enough for learners to see and recognise. Flipcharts are easily transported, stored and maintained and they have the advantage of being able to illustrate situations.

When learners are not used to learning with teaching aids, pictures can be easily be misunderstood.

4) Chalkboards
Chalkboards can be used for drawing pictures or writing words. They are very useful when the class is discussing ideas or brainstorming, anytime new thoughts need to be recorded.

Chalkboards can be easily misused. Some teachers have the tendency to write all the information they want to convey on the board. Students will usually write down everything they see on the board without processing or thinking about it. Learning does not take place.

Chalkboards or chalk will not be available in all the locations where you teach.

Design Considerations for Good Teaching Aids
Teaching Aids which deliver clear, memorable messages must meet the following criteria:

1) Pictures should be easy to see.

Are the pictures large enough?
2) Pictures should be easy to understand.

Are they familiar to those that must learn from them?
Are the objects in the pictures in correct proportion?
Are only parts of figures shown which make the picture difficult to recognise?

3) Information should be printed clearly and simply.

Is the picture so cluttered that important details are lost?
Is there more than one theme to the picture?
Would it be better to express the ideas using more than one drawing?

4) A visual aid should be well organised.

Does the picture fill the space?
If pictures are labelled with words, is it clear which label goes with which picture?

5) The viewer's attention should be directed to the important information.

Are the important things the centre of attention?
Are colours used appropriately so the message of the picture is highlighted?

6) The pictures should be designed for the learners who will view them.

Are they culturally and socially correct?
Are they suitable for the age group involved?
All teaching aids should be field tested after they are developed. Field Testing is a method of assessing the impact of a teaching aid by asking questions of the students they are designed for. In this way it is possible to identify the weakness's of a teaching aid and then revise and improve it.

**Using Teaching Aids**

The best designed teaching aid is effective only if it is used properly. When using an Aid:

1) Make sure everyone can see the teaching aid.

   Use an Aid that is large enough for the group size. Large groups need large visual aids. Be careful not to stand in front of your Aid and ensure that everyone, even those at the back, have a clear view.

2) Show the teaching aid while you are talking about the topic it illustrates.

   Show it long enough for everyone to look at it. Put it aside when you move on to another topic.

3) Hold the Aid still so people can see it properly or find a place where it is easily visible to all learners.

4) Ensure the teaching environment is well lit so the Aid can be seen properly.

5) Point to important parts of the Aid as you talk about them.

6) Encourage your learners to handle and experiment with your visual aids.

   Pass them around during discussion. Put them on display. Let learners participate during demonstrations.
Chapter 3
THE CAUSES OF DISEASE AND HEALTH PROBLEMS

OBJECTIVES:
By the end of Chapter 3 the learner will be able to:
1. Relate the two key components of understanding about the prevention of disease.
2. List 3 types of causes of disease.
3. List 2 types of Physiological Causes of disease.
4. Discuss 3 infectious agents of disease.
5. Discuss the 4 elements of the Chain of Infection.
6. Explain 3 approaches to breaking the Chain of Infection.
7. Describe the body’s natural ability to fight disease.
8. Know the Basic Health Messages for Microbes

3.1 DISEASE
Disease causes people to become weak, it causes unhappiness and pain, and sometimes it can lead to death. In Chapter 1 we learned that the major health problems of Afghans are diarrhea, acute respiratory infections (ARI), malaria and diseases prevented by vaccines. These are diseases that can be prevented if people understand two parts of the problem:

1. What causes the disease.
2. What they themselves can do to prevent the disease.

Only one hundred years ago little was known about the causes and prevention of disease. Now that there is a much greater understanding about 1) What causes disease and 2) What can be done to prevent disease, it is important to spread this knowledge.

We can talk about different kinds of causes of disease. There are physiological causes which we will come to know as "microbes" later in the text, there are environmental causes such as lack of a safe water supply or access to immunisation facilities and there are cultural beliefs which
as nonscientific explanations which have usually been passed on within a tribe from generation to generation.

As a Health Educator it is essential that you understand all three types of causes if you are to effect change. The Environmental causes of disease will be explained for each specific health problem throughout the text. In this chapter we will discuss cultural beliefs and look at the physiological causes of disease.

### 3.2 CULTURAL BELIEFS

Long before science discovered the scientific causes of many diseases people were examining the disease process and coming up with explanations of their own. Along with explanations came local treatments for diseases. Within tribal groups medical treatment has been established on these cultural beliefs and maintained over many years. Some of these beliefs became widespread, others are localised within small tribal groups. Regardless, the way a person perceives his disease, its cause and its treatment, is of great significance to the health educator.

Although much of traditional thinking about disease does not conflict with a healthy lifestyle, Afghans practice some forms of traditional treatment that can be harmful. An example of this is the practice of wrapping the newborn's cord in the burnt remains of animal manure. This is a custom that has been handed down from mother to daughter for many years. Mothers believe it to be a form of protecting the cord from infection; in fact, it is an excellent way of introducing tetanus to the child in his first day of life.

Changing traditional patterns of belief and behaviour is exceptionally difficult. Tradition has time and cohort support on its side. New knowledge is untried and suspect. It is unnecessary to try to change all cultural beliefs. It is necessary to understand what the cultural beliefs are and to concentrate on changing harmful behaviour to helpful.

### 3.3 THE PHYSIOLOGICAL CAUSES OF DISEASE

There are two main types of diseases. Non-infectious diseases do not spread from a sick person to a healthy person. Examples of non-infectious diseases are: malnutrition, breathing problems known as "asthma", heart disease and sore joints.

Infectious diseases are spread from person to person. A healthy person can catch the disease from an infected
person. Examples of these diseases will already sound familiar to you, we have already discussed them as the major health problems of the Afghan people: diarrhea, acute respiratory infection and diseases prevented by vaccines. These are the diseases that are preventable and of greatest importance to us as educators and so we will be focusing on them throughout the text.

**Bacteria and Viruses (microbes)**

Infectious diseases are mainly caused by tiny living organisms called bacteria and viruses. In order to deliver a simple, uncomplicated message, in our training programme we call them both by one name: "microbes".

Bacteria are very small organisms. One million would fit on the head of a pin. Under a high-powered microscope it is possible to see them. Bacteria can reproduce very quickly, especially in warm, moist, nourishing places like food or faeces in the summer or inside the human body. Tuberculosis, pneumonia, some types of diarrhea and tetanus are examples of diseases caused by bacteria.

**ANTIBIOTICS CAN KILL BACTERIA**

Viruses are much smaller than bacteria. One million viruses could fit inside one bacterium and even with a high-powered microscope they cannot be seen. They only reproduce inside the human body and like bacteria, they reproduce very quickly. Measles, polio, the common cold and some types of diarrhea are examples of viral diseases.

**ANTIBIOTICS CANNOT KILL VIRUSES**

Bacteria and viruses are the main organisms which cause disease. They enter the body by the same routes and cause diseases that can be prevented by the same actions. Because they cannot be seen with the naked eye it is difficult to convince people that they do exist. It is important to understand about microbes to know how to prevent disease and conveying this to learners becomes an important part of your role as CHE. Remember, bacteria and viruses will be known simply throughout the training programme as "microbes".

**Other Causes of Disease**

Some important diseases are caused by parasites. Parasites are small, living creatures that feed on humans and can be seen with the naked eye. The parasites that you will teach about in the training programme are worms, mosquitos, lice and fleas.
3.4 THE CHAIN OF INFECTION

Four elements are necessary for the successful transmission of disease. When the four contribute to the spread of disease then microbes have successfully followed the "chain of infection" from where the microbes live in nature (the source) into a person (the host).

1. **SOURCE**

2. **PLACE OF EXIT**

3. **METHOD OF TRAVEL**

4. **PLACE OF ENTRY (HOST)**

The source of transmission of a disease is the infected person or animal who already has become sick and harbours the microbes for a particular illness.

The place of exit is the point where the microbes causing the illness, leave the infected person. There are four places of exit from humans or animals:

1) Mouth and Nose: from the lungs and airways while coughing, sneezing, talking and spitting.

2) Faeces: from the intestines when defaecating.

3) Skin: from direct contact.

4) Blood: from an injection, from frank bleeding or when bitten by a mosquito.

The methods of travel are the ways in which microbes are carried to a non-infected person. Air, flies, mosquitoes, rats, dirty food and utensils, and needles are all methods of travel. There are many more and more than one may be involved in the transmission of disease. An example of multiple methods of travel is illustrated in the story of Gulakha and Saeed Jan:

Gulakha was sick with severe diarrhea. When he defaecated in a field flies came and sat on the faeces picking up diarrhea microbes on their feet. One fly flew to Saeed Jan's compound where the family was just sitting down to dinner. The fly smelled the lovely rice and settled on it to snack leaving microbes on every grain he walked over.
Soon Saeed Jan grabbed a fistful of contaminated rice and popped it in his mouth. Hours later Saeed Jan began to feel sick....

The microbes reached Saeed Jan by a fly and food. Both are modes of transmission from source to host.

The place of entry is the point where the microbe enters the body of the person who will then become infected with the same disease (the host). There are three Ports of Entry:

1) Mouth and Nose: when eating, drinking and breathing.

2) Skin: when walking barefoot, shaking hands etc.

3) Blood: from insect or animal bites or from dirty needles or cuts

Microbes and parasites enter the body through the skin into the blood or through body openings into the lungs or stomach. Hookworm, malaria and tetanus are examples of diseases that enter through the skin. Many organisms enter through body openings, usually the nose and mouth. This is known as the "oral place of entry". Respiratory infections and diarrhea are typical resulting diseases.

3.5 BREAKING THE CHAIN OF INFECTION

The fundamental strategy behind Primary Health Care is to break the chain of infection and prevent the spread of disease. There are three logical points to attack the chain: at the source, in transmission and at the host.

1) Attacking the source.
   A person suffering from an illness must take precautions to prevent passing on his infection. This might include:
   - covering the mouth when coughing, not breathing directly on others, properly disposing of phlegm.
   - proper use of safe latrines
   - frequent handwashing
   - treatment of infection

2) Attacking the route of transmission.
   Modes by which microbes are transmitted need to be controlled or eliminated. This may include:
   - control of flies, mosquitoes, other insects and animals
   - protecting water sources and cleaning water storage containers, glasses, utensils
   - maintaining a clean body, clean home and clean environment
3) Protecting the host.

Defending the host against contact with an infecting agent and building his strength and immunity against microbes is the third line of defense. This includes:
- immunisation
- strengthening the body through good nutrition and hygiene
- preventing mosquito bites through the use of bed nets
- avoiding hookworm by wearing shoes
- avoiding direct contact with infectious persons

The communicable diseases are controlled by treating infected people and preventing the spread of the disease to others. As Community Health Educators it is important to keep in mind that prevention is always easier, safer and cheaper than treatment and that improved levels of health are reached only with increased levels of understanding.

3.6 OUR BODIES: OUR NATURAL DEFENCE AGAINST DISEASE

For most illnesses no medicines are needed. Our bodies have their own defenses, or ways to resist and fight disease. In most cases these natural defenses are far more important to our health than are medicines. Even in the case of a more serious illness, medicines may be needed, but it is the body that must overcome the disease; the medicine only helps. Cleanliness, rest and nutritious food is all very important in building up our body's natural defenses.

Every part of our body is made up of tiny units called "cells". Cells are so small that they can only be seen with a microscope. There are several variations of cells; muscle cells, bone cells and blood cells are constructed differently because they all have different jobs to do.

Cells need to be fed. That is the job of the blood which brings water and food to cells throughout the body. The body loses quantities of water and special salts during diarrhea, fever, exertion or during hot season. The salts are important to the body. Without them the cells cannot be fed and cleaned properly. When the water and salts are not replaced and the cells dry out, a person is dehydrated.

When a microbe enters the body the cells may respond in two ways depending on the type of microbe. Either specially cells called "white cells" rally or the cells make special proteins called "antibodies". Both have the ability to attack and kill harmful microbes. This is called the body's "Natural Defenses"; the ability of the body to fight disease. If a person is able to ward off disease well he is said to be immune. If a person becomes sick with a disease, the microbe has not been killed and it has multiplied. The body was not able to produce sufficient antibodies or
mobilise enough cells to kill the microbes. Eventually, in most cases involving strong healthy individuals, the body is able to rally its defenses and produce the enough natural substances required to overcome the microbes. Recovery begins.

**WHITE CELLS = THE BODY’S OWN ARMY WHICH FIGHTS FOREIGN INVADERS (MICROBES)**

**ANTIBODIES = THE BODY’S OWN MEDICINE THAT KILLS MICROBES**

The very young have poor natural defenses. When microbes enter the body they attack the cells and sufficient antibodies are not produced to overcome them. **Immunization**, the stimulation of antibodies in the child, is most important to protect him from harmful diseases in early life. Immunization will be discussed in more detail later in the text.

An important part of preventative health care deals with the strengthening of the bodies Natural Defenses. Nutrition, immunisation and sanitation combined with many other elements all play a large role in contributing to our body’s ability to withstand disease.
CHAPTER 4
CLEAN BODY, CLEAN HOME, CLEAN COMMUNITY

OBJECTIVES:

By the end of Chapter 4 the learners will be able to:

1. Explain the relationship between Personal Hygiene and Health.
2. Explain the relationship between Dental Hygiene and Health.
3. Discuss the importance of Clean Water as it relates to Health.
4. List 6 ways to protect a safe water supply and 5 ways to keep water safe.
5. Describe 4 ways to make unsafe water safe.
6. List 8 precautions for Clean Food.
7. Explain the relationship between Environmental Hygiene and Health.
8. Describe a safe latrine (4 points).

"Cleanliness is half of faith"
Hadith Sharif

Cleanliness plays an essential role in maintaining health and is fundamental to Islam. It was the Prophet Mohammed (P.B.U.H.) who said:

"For God loves those who turn to him constantly and he loves those who keep themselves pure and clean"

Surat II (Baqara) verse 222

Personal cleanliness (or personal hygiene), water and food cleanliness and public cleanliness (or environmental hygiene) are all important to a healthy life.

4.1 CLEAN BODY

Personal Hygiene
Personal hygiene refers to the cleanliness of the body. It includes the skin, hair, nails and personal habits.
Since learning is often a product of observation and imitation, role models play an important part in the development of person hygiene habits among children. Children imitate the behaviour of their parents, teachers and religious leaders. As a Community Health Educator your hygiene will be under close scrutiny by the children you are teaching. They will follow your lead and do as you do. What you try to teach them will mean little if you set a bad example.

The Skin
The skin is a vital and complex organ. It keeps the body from becoming too hot or too cold. When the weather is cold tiny blood vessels in the skin become narrow. Less blood flows through them so that less heat is lost to the outside. When the body becomes hot the blood vessels become wide bringing more blood to the surface to cool. Tiny holes called "pores" cover the skin and secrete sweat which evaporates, cooling the surface of the skin and drawing the heat from the blood and in turn, the body.

The skin protects the body. It keeps out dirt and germs. Nerves in the skin warn us by sending signals when we touch something hot or cold or dangerous (pain).

Care of the skin is important to health. Dirt on the skin blocks the pores and allows microbes to grow. The microbes enter the body from dirty hands to mouth and cause disease. Diseases of the skin also result from unclean skin.

Bathing should be done at least twice a week and more frequently during hot weather or if a person is involved in strenuous activity. Clothes, bedspreads, sheets and blankets should be washed frequently and placed in the sun to dry. Sun drying kills most parasites which cause skin disease.

The Hands and Nails
Whether at work or at play, when a person is using his hands he picks up microbes from many of the things he comes in contact with.

Washing hands with SOAP and water removes microbes from the hands. Where SOAP is not available, ash can be used. This helps to stop microbes from getting into food or into the mouth. Children often put their hands into dirty things and then into their mouths. This makes handwashing for children even more important, especially before giving food.

It is especially important to wash hands with SOAP after defaecating, before handling food and after cleaning babies who have defaecated.
WASHING HANDS WITH SOAP BEFORE EATING
IS MUCH MORE IMPORTANT THAN AFTER.

Dirt is easily trapped under the nails. Nails then become an excellent source of microbes. When dirty hands with nails that have not been cleaned are put in the mouth, microbes enter the body and begin to cause disease. Nails should be trimmed and kept short.

The Prophet Mohammed (P.B.U.H.) spoke of cleanliness of hands and nails when he said:

"Trim your nails"
Hadith Sharif

"If any of you wake up, he is to wash his hands"
Hadith Sharif

**BASIC HEALTH MESSAGES FOR PERSONAL HYGIENE**

1. Disease can be prevented by washing the body and clothes frequently.

2. Disease can be prevented by washing the hands with SOAP and water after defaecating and before touching food.

**Dental Hygiene**

Teeth are important for chewing and digesting food. They give our smile appeal and they can be excruciatingly painful when they become rotten. Care of the teeth was proclaimed by the Prophet Mohammed (P.B.U.H.) as an essential part of Islam:

"Brushing your teeth purifies the mouth and pleases God"
Hadith Sharif

"I would instruct my people to brush their teeth for every prayer"
Hadith Sharif

To keep the teeth and gums healthy it is important to:

Avoid sweets Eating many sweets (sugar cane, candy, tea with much sugar, soft drinks like coke or fanta) rots teeth quickly.
Brush teeth well every day and always brush immediately after eating anything sweet. Parents should start brushing their children's teeth and monitor them closely when they are old enough to brush themselves.

Brush up and down not from side to side. Brush the front, back, top, and bottom of all teeth.

Use a maswak if you do not have a toothbrush.

Make a tooth powder if you don't have toothpaste. Mix equal amounts of salt and bicarbonate of soda. To make it stick, wet the toothbrush before putting it in the powder.

Use plain salt if you don't have bicarbonate of soda.

If teeth are not cared for properly yellow "plaque" will form on the teeth. Plaque is harmful and will cause teeth to become weak and form black spots called "cavities". Cavities will grow if not cared for by a dentist and will eventually become painful. When a cavity continues to grow and becomes serious, the tooth dies and must be removed.

If a tooth forms a cavity, sweet food should be avoided and the teeth brushed well after every meal. Contacting a dentist is important as soon as a cavity begins to form, and especially when a tooth becomes painful. A dentist can repair a tooth caught in the early stages of decay, so it will last for many years.
BASIC HEALTH MESSAGES FOR DENTAL HYGIENE

1. It is important to clean the teeth at least twice a day: after breakfast and before bed.

2. Teeth that are not cleaned regularly become rotten and develop disease.

3. Sweet food and hard foods can damage the teeth. Hard things should not be broken with the teeth. Teeth should be brushes after eating sweet food.

4. Bleeding gums, yellow plaque, black spots or pain are signs that it is important to see a dentist.

4.2 CLEAN WATER AND CLEAN FOOD

Safe Water is one of the essential elements of Primary Health Care. More than half of all illness and death among young Afghan children are caused by microbes which get into a child's mouth through food and water. These routes of transmission of microbes should be of special importance and should therefore be stressed.

Clean Water

"We made from water, every living thing"

Hadith Sharif

Water is one of the essential elements that is absolutely vital to life. To remain healthy a person needs safe water for drinking, for washing clothes, food and household equipment and for bathing. But why is safe water so vitally important to us?

There is probably more water in the human body than you think. Surprisingly, about two-thirds of our bodies are made up of a mixture of water and special salts. It is what makes up our blood and cells. The salts help water absorbs food from the gut and air from the lungs, then it circulates throughout the body in the blood bringing "food" and "drink" to all the cells. Then it picks up all the waste material throughout the body and carries it out in the form of urine. Water feeds and cleanses inside the body.

Water must therefore be continually consumed to replace lost fluids. That means that an adult needs to drink at least 1.5 litres of fluids a day to stay healthy under normal conditions. When the body loses more fluids than usual, as
is the case during hot weather, increased physical activity, fever or diarrhea, then more fluids need to be consumed. The body takes the special salts from the foods we eat and mixes it with water.

But many microbes live in water. When a person drinks water that contains microbes he will become sick. Diarrhea, typhoid, polio are just some of the serious diseases that can be transmitted through water.

Even if water is clear, it may not be free from microbes. Water that comes from a source that is not protected from contamination is considered "unsafe". Stream, river and pond water carry the dirt from upstream habitation and local use and with it, harmful disease-causing microbes. Microbes also enter and grow in water tanks and water storage containers that are not kept covered and clean.

When food and utensils are washed with unsafe water containing microbes, they in turn cause illness. Water-borne microbes also have the ability to affect the skin and unsafe water used for bathing or washing clothes can lead to various skin diseases.

How to Protect a Clean Water Supply

1. Keep wells covered

2. Construct aprons and drainage ditches to channel waste water onto gardens or soak pits.


4. Keep faeces, garbage and waste water (especially from latrines) away from any water used for cooking, drinking, bathing or washing

5. Ensure buckets, ropes and containers used to collect and store water are kept as clean as possible. Hang well buckets and ropes instead of placing them on the ground.

6. Keep animals away from wells and places where water is collected.

How to Keep Household Water Clean

1. Store drinking water in a clean, covered container.

2. Store drinking water in a container with a small neck.

3. Take water out of the container by pouring or with a
clean ladle or cup.

4. No one should put their hands into the container or drink from it directly.

5. Clean the storage container frequently.

But what can a family do if they have no access to water from a protected spring, protected well or karrez?

<table>
<thead>
<tr>
<th>BOILING</th>
<th>Water boiled for 10 - 15 minutes is safe. (or until a kernel of rice is soft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILTERING</td>
<td>Water that is filtered through layers of sand (45 cm), then coal (10 cm), then gravel (10 cm) is safe (filter must be cleaned frequently or it will not longer be safe).</td>
</tr>
<tr>
<td>SETTLING</td>
<td>Microbes will die or settle to the bottom of stored water. Water that is poured from the top is safer than from the bottom.</td>
</tr>
<tr>
<td>SUNLIGHT</td>
<td>Sunlight also helps kill microbes. Water that is stored for two days in the sun in a clear container, is better than untreated water but not completely safe.</td>
</tr>
</tbody>
</table>

**BASIC HEALTH MESSAGES FOR UNSAFE WATER**

1. Unsafe water contains microbes which cause disease.
2. Most river, ditch and pond water is unsafe.

**BASIC HEALTH MESSAGES FOR SAFE WATER**

1. To be healthy people need safe water for drinking, preparing food and washing.
2. Boiled and cooled water is safe and suitable for drinking.
3. Extra boiled water left from tea should be kept for babies and children.
4. If a water supply is not kept clean and protected, the water will cause illness.
Clean Food

Microbes enter the body in various ways. Food is one of the things we put in our mouths frequently and therefore it can be an important link in the chain of orally transmitted diseases. Eating clean, safe food is one of the ways we can maintain good health. Food can be made and kept safe by:

- Keeping the kitchen and surrounding area clean
- Making sure that food is thoroughly cooked, especially meat and poultry.
- Washing raw vegetables and fruits thoroughly in clean water
- Eating food soon after it has been cooked so that it does not have time to go bad.
- Covering food that is kept, storing it covered in a cool place and thoroughly reheating it before serving it again.
- Keeping raw meat safely away from other food. Raw meat, especially poultry, usually contains microbes. Chopping blocks or food preparation surfaces should be washed clean after preparing raw meats or any other type of food.
- Washing cooking pots, dishes and other utensils after use.
- Keeping food clean and covered and away from flies, insects, rats, mice and other animals.

4.3 CLEAN COMMUNITY

Environmental Hygiene is another essential element of Primary Health Care, it involves both the removal of the places where microbes are harboured and breed and also the prevention of their transmission from the environment to us. It was a theme spoken frequently about by the Prophet Mohammed (P.B.U.H.):

"God Almighty is kind and loves kindness, clean and loves cleanliness...so keep your households clean"

Hadith Sharif

It is important to stress that these measures, to be fully effective, must be acted on by every family in the community.
Chapter 4
Clean Body,
Clean Home,
Clean Community

Safe, Clean Latrines

"Beware the three damnations: defaecation in the waterways, streets and in the shade"

Hadith Sharif

The single most important action which families can take to prevent the spread of germs is to dispose of faeces safely. Many diseases, especially diarrhea and worms, come from the microbes found in human and animal faeces. People can swallow these microbes if they get into water, onto food, onto the hands, or onto utensils and surfaces used for preparing food.

**FAECES IS THE MOST DANGEROUS CONTAMINANT IN A NORMAL ENVIRONMENT**

To prevent this from happening all families should have and use safe latrines. The latrines should be cleaned every day because an unclean latrine is worse than no latrine.

What is a safe latrine?.....

1. A latrine which is in easy access to family members so it can always be used.

2. A latrine which is as far away from wells or other water sources as possible (minimum of 15-20 meters depending on soil conditions).

3. A latrine with either a covered ventilation pipe or a close-fitting cover over the pit hole to prevent flies from entering.

4. A clean latrine.

Contrary to common belief, the faeces of babies and young children are even more dangerous than those of adults. Hence, even small children should be taken to use the latrine.

If it is not possible to use a latrine, adults and children should defaecate away from houses, paths, water supplies and anywhere that children play. After defaecating the faeces should be buried. If children defaecate without using a latrine, then their faeces should be cleared up immediately and either put into the latrine or buried.

**Burning or Burying Refuse**

Microbes can be spread by flies and rats which like to breed in the refuse which may lie about compounds or common community areas.
Every family should have a special pit where household garbage is burned or buried every day. Empty containers collect standing water and must be disposed of. They may appear innocuous but even small tin cans of stagnant water provide ideal breeding places for mosquitos.

Community cleanliness is as important as household cleanliness but provides a greater challenge. Few like the task of cleaning up garbage but many will add carelessly to its build up. Furthermore, since no one is specifically responsible for community cleanliness few actually take any initiative to do anything about it.

A heightening of awareness, an increased sense of community responsibility and community group action is essential for overall environmental hygiene and improved health. Generation of interest and involvement toward these ends is an important function of the CHE.

<table>
<thead>
<tr>
<th>BASIC HEALTH MESSAGES FOR FLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Flies are our enemy.</td>
</tr>
<tr>
<td>2. Flies carry microbes and cause illness.</td>
</tr>
<tr>
<td>3. Avoid flies by protecting food and latrines and preventing flies from breeding.</td>
</tr>
</tbody>
</table>
CHAPTER 5
FOOD AND HEALTH

OBJECTIVES:

By the end of Chapter 5 the learner will be able to:

1. List and give examples of the Three Food Groups and explain their role in maintaining Health.
2. List and give examples of 2 types of Energy Food.
3. List and give examples of 3 types of Body-Building Food.
4. List and give examples of 6 Protective Vitamins or Minerals and what their role is in maintaining Health.
5. Discuss the causes of Malnutrition.
6. Relate 6 ways families can achieve a nutritious diet at low cost.
7. Know the Basic Health Messages for: Good Food the Principles of Food

"Eat of the good things that God has provided for you, lawful and good"
Surat V (Maida) verse 91

Food is vital for life. If people do not eat, they die. If they do not eat enough they become sick and thin. While nutrition is considered by WHO to be one of the eight essential elements of Primary Health Care, malnutrition still remains one of the leading causes of death in Afghan infants.

5.1 THE THREE FOOD GROUPS

All living things require sustenance. In order for people to be healthy they must eat enough food and eat the right foods. The body depends on three different kinds of food to function properly:

1. ENERGY FOODS
2. BODY BUILDING FOODS
3. PROTECTIVE FOODS
1. Energy Food

Energy food is the main food which people eat. Carbohydrates, fats and oils are called energy food because they provide the necessary fuel to the body for warmth, performing work, playing and anything that requires energy. Even just sitting and reading this book requires energy.

The body produces energy by breaking down either carbohydrates or fats and oils into tiny components that travel around the body in the blood and so they can be used by the muscles.

Carbohydrates come in two forms: simple and complex. Sugar, sugar cane and honey are examples of simple carbohydrates. They are very sweet and provide fast short-term energy like the energy needed to run a race.

Complex carbohydrates (starches) are contained in rice, corn and wheat. They provide sustained long-term energy like the energy required to work for a long day in the fields.

Fats and oils like ghee, butter or cooking oil have much more concentrated energy. Much less is needed to provide the same amount of energy as carbohydrates. Too much fats or oils can be harmful.

<table>
<thead>
<tr>
<th>ENERGY FOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBOHYDRATES</td>
</tr>
<tr>
<td>Simple Carbohydrates: sugar, cane, honey</td>
</tr>
<tr>
<td>Complex Carbohydrates: rice, wheat, corn</td>
</tr>
</tbody>
</table>

When more energy food is consumed than the body needs it is stored as fat. When the body works hard it uses the stored fat as its energy "reserve". If the energy reserve is not used the person will become fat. If a person has no energy reserve and does not consume enough energy food to meet the body's needs his body will begin using Protein for energy instead of body-building. He will become weak and very thin.

2. Body Building Foods

Foods rich in protein are called Body-building Foods because the muscles, skin, heart and every other important part of the body is made from proteins. Proteins play three important roles in the body:
Number 1 - Proteins heal the skin, muscles, and bones when the body is injured.

Number 2 - Proteins are essential for the body to grow properly.

Number 3 - Proteins help the body resist disease.

Proteins can be found in animal foods (ie. meat, fish, eggs, milk) and plant foods (ie. legumes, grains, nuts). Animal proteins are 'complete' and absorbed by the body directly as protein. Animal protein is much more expensive than plant protein.

Plant proteins are 'incomplete'. Before the body absorbs them they must be 'completed' by mixing in other plant or dairy proteins. For example: dahl (legume) and nan (grain) together are a complete protein or rice (grain) and beans (legume) or pillau (grain and nut).

When Protein is consumed it is absorbed into the blood and travels to all parts of the body including the muscles, skin, bones and heart. It is responsible for the growth of cells and the repair of damaged or old cells.

Proteins are also needed to make antibodies which are essential to the body to fight disease.
3. Protective Foods
Foods rich in Vitamins and Minerals are called Protective Foods because they keep our eyes, skin, blood and teeth healthy. There are many different groups of Vitamins and Minerals each playing a different role in 'protecting' the body. Vitamins are named after letters of the alphabet. The most important Vitamin groups are A, B, C and D. The most important Mineral groups are Iron and Calcium.

<table>
<thead>
<tr>
<th>Name</th>
<th>Function</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>VITAMIN A</td>
<td>Vitamin A is important for sight. A deficiency of Vitamin A in children can cause blindness</td>
<td>Vitamin A can be found in: dark, leafy green vegetables (eg. spinach) or red and orange vegetable (eg tomatoes and carrots)</td>
</tr>
<tr>
<td>VITAMIN B</td>
<td>Vitamin B is food for the cells of the body. A lack of Vitamin B results in disease such as Pellegra, Beri-beri</td>
<td>Vitamin B can be found in: brown grains (eg. rice, wheat)</td>
</tr>
<tr>
<td>VITAMIN C</td>
<td>Vitamin C is important to the skin for the healing of wounds. Lack of Vitamin C causes wounds to heal slowly and scar tissue does not form properly. Bleeding from the mouth and gums occurs.</td>
<td>Vitamin C can be found in: citrus fruits, tomatoes, guava and green vegetables.</td>
</tr>
<tr>
<td>VITAMIN D</td>
<td>Vitamin D is necessary for the proper formation of bones. Deficiency of Vitamin D will cause the softening and bending of bones.</td>
<td>Vitamin D is made in the skin from sunlight. Vitamin D can also be found in milk.</td>
</tr>
</tbody>
</table>
IRON
Iron is necessary to form the red part of blood. A lack of Iron will cause anemia. Anemia makes the body weak and tired.
Iron can be found in: meat, especially liver, beans, green vegetables, some fruits (eg. figs)

CALCIUM
Calcium is important for strong bones and teeth. Deficiency of Calcium result in bones growing improperly or becoming brittle.
Calcium can be found in: milk and curd, dark, leafy green vegetables, citrus fruit and legumes

BASIC HEALTH MESSAGES FOR GOOD FOOD
1. To be healthy it is important to eat from all 3 food groups every day.
2. Eating right help the sick get well. During and after illness it is important to eat nutritious foods.
3. "Body-building" foods are needed for proper growth, for making healthy muscles and brains and many other parts of the body.
4. "Energy Foods" give power to work and play.
5. "Protective Foods" help the body to work properly and are needed for healthy bones, blood and teeth.

BASIC HEALTH MESSAGES FOR PRINCIPLES OF FOOD
1. Breast milk alone is the best possible food and drink for a baby in the first four months of life.
2. After 4 months soft, mashed food for all 3 food groups should be added to a baby's diet.
3. Breast feeding should continue well into the second year of life.
4. A mother who is pregnant or breastfeeding should eat enough nutritious food for two people.
5.2 MALNUTRITION

"Eat of the good things we have provided for your sustenance"

Surat XX (Taha) verse 81

What is Malnutrition?
To eat right means to eat enough. It also means to eat a balance of the different foods the body needs. To be healthy, a person needs to eat enough food from each of the food groups. Many people get large amounts of Energy Foods like rice, nan and ghee, but not enough Body-building and Protective foods like legumes, eggs, meat, fruit and vegetables. These people can be malnourished even though they eat a lot of food.

Malnutrition is a serious disease. It affects large numbers of Afghans, many of them are children. It causes lethargy, increases the severity of illness and can lead to death.

Causes of Malnutrition
Malnutrition is usually a result of poverty or the lack of understanding about good nutrition. Disease may cause a person to become poorly nourished. Disease can also result from the weakened state of a person suffering from malnutrition.

In very young children malnutrition is often the result of delayed introduction of additional foods into a baby's diet. Although it is important to give breastmilk for two years, after the age of four months a child needs more nutrients than breastmilk contains. Soft foods must be added after the age of 4 months and should be increased in amount as the child grows.

IF ADDITIONAL FOODS ARE NOT INCLUDED IN A CHILD'S DIET AFTER THE AGE OF FOUR MONTHS, HE: WILL BECOME MALNOURISHED

Malnutrition in infants may also result from a mother's failure to breastfeed. Breastmilk is the perfect food for a baby. All a baby needs to grow healthily in his first four months of life is in breastmilk. Without it it is very difficult to provide the right kind of food which an infant needs. Without breastmilk a child is also at increased risk for disease in two ways:

1. Breastmilk provides antibodies to the baby to protect him from disease.

2. Breastmilk is clean. Microbes are easily introduced to an infant on spoons and feeding bottles, and in the water used to mix up infant formula.
Disease, especially diarrhea, robs nutrients from a child's body.

**IF A SICK CHILD DOES NOT HAVE ADDITIONAL NUTRITIOUS FOODS IN HIS DIET DURING AND AFTER ILLNESS HE WILL BECOME MALNOURISHED.**

The lack of sufficient food in the diet is the most commonly understood cause of malnutrition. Adults require enough of the right kinds of food to replace what their body uses. When a person uses up more nutrients than he eats, his body begins to rely on stored fat and he becomes thin. After fat stores are finished the body switches to using muscle and the person becomes wasted.

**IF A PERSON DOES NOT EAT ENOUGH FOOD TO REPLACE WHAT THE BODY USES UP AS ENERGY, BODY-BUILDING AND PROTECTION, HE WILL BECOME MALNOURISHED.**

Children who are growing rapidly require extra food for growth. Without the food a child's body needs, he will not grow properly. To obtain sufficient food a child needs to eat more often than three times a day.

### 5.3 EATING A WELL-BALANCED MEAL DOESN'T HAVE TO COST ALOT

Most families can afford sufficient Energy Food to meet their needs. Wheat, rice and ghee are cheap and easily available for making nan and rice.

Often a family's diet is deficient in Body-building Foods and Protective Foods. There are some inexpensive ways of including these foods in the family meals without the use of expensive meat or vitamin tablets.

- Breastmilk is the perfect food for infants and it does not cost anything. A child should be breastfed exclusively for his first four months of life. Breastfeeding should continue for two years with additional food.

- Avoid expensive foods or drinks which have no nutritional value such as soft drinks, candies or tobacco.

- Instead of meat, combine plant proteins to ensure the family gets sufficient Body-building foods. Dahl and rice or curd and nan are examples of complete plant proteins.
- Eggs are another less expensive form of Body-building food which can be substituted for meat.

- Spinach, tomatoes and tangerines are examples of cheap vegetables and fruit that are full of Protective vitamins and minerals.

- Plant a kitchen garden of vegetables for the family and raise chicks for eggs and meat.
CHAPTER 6
DISEASE
AND
DISEASE PREVENTION

OBJECTIVES:

By the end of Chapter 6 the learner will be able to:

1. Define...
2. Explain the causes of ...
3. List methods of Prevention of ...
4. Describe treatment of ...
5. Explain the Role of the CHE concerning ...
   ...Diarrhea and Dehydration, Acute Respiratory Infection,
   Malaria, Tuberculosis, Measles, Polio and Tetanus
6. Describe to correctly prepare ORS, WWS and SSS.
7. Define IMMUNIZATION and explain its role in maintaining good Health.
8. Know the Basic Health Messages for: Diarrhea
    Rehydration Solutions
    ARI
    Malaria
    Worms
    Immunization

Endemic Diseases are diseases that are common to a particular place or people and Control of Endemic Diseases is one of the eight essential elements of Primary Health Care.

Diarrhea, Acute Respiratory Infections, Malaria and the vaccinatable diseases of Tuberculosis, Measles, Polio and Tetanus are the diseases responsible for the greatest amount of suffering and death among Afghans both in Afghanistan and Pakistan. These are the Endemic Diseases of the Afghan people.

6.1 DIARRHOEA and DEHYDRATION

What is Diarrhoea and Dehydration?

Our bodies are made up mostly of water with special salts. The water in the body and our body salts are essential for life. With the diarrhoea a great deal of water and salt which the body needs is lost and the body weakens quickly. If a person passes liquid or watery stools, he has diarrhea. A person who has lost too much water and salts is said to be "dehydrated". Dehydration is very dangerous and can cause death.
The signs of severe dehydration are:

* lethargy or unconsciousness; floppy
* drinks eagerly or too weak to drink
* skin pinched on abdomen returns very slowly (>2sec)
* sunken and dry eyes
* dry mouth and dry tongue
* no tears when crying

**Cause of Diarrhoea**
Diarrhea is caused by microbes entering the body through:

* dirty drinking water - from a dirty pond or river, an unprotected spring or well, or water stored in unclean or uncovered containers

* dirty food - unwashed food, cooked food left outside or in a warm place or food not protected from dirt, flies and animals

* spoiled foods - ones that have not been cooked long enough, such as meat

* dirty hands - when food is prepared or eaten without properly washing unclean hands

* feeding bottles

**Prevention of Diarrhoea and Dehydration**

Diarrhoea
- Safe drinking water must always be used, especially for children (Refer to 4.2 Clean Water and Clean Food).
- Breastfeeding infants until the age of two years protects against diarrhea (Refer to 8.1 Maternal Health).
- Food must be prepared and eaten in a safe manner (Refer to 4.2 Clean Water and Clean Food).
- Hand washing is very important. Use SOAP and water to wash hands after going to the latrine, before preparing food and before eating.
- Hand washing is very important also after caring for children with diarrhea, especially after cleaning a child who has passed a watery stool.
- Flies carry microbes which cause diarrhea. Flies must be controlled in the home and community (Refer to 4.3 Clean Community).
- All family members should have access to and use safe latrines (Refer to 4.3 Clean Community).
Dehydration
It is usually possible to prevent a person with Diarrhea from becoming dehydrated. Immediately, as soon as the first loose stool is passed, people should increase their fluid consumption to replace the water and salt they lose. They should drink a solution that will help the body become rehydrated. Oral Rehydration Solution (ORS), Wheat Water Solution (WWS) and Sugar Salt Solution (SSS) are known by Afghans as Nemkol or Wheat Nemkol. If prepared properly and given frequently each can prevent deaths due to diarrhea.

The person should continue to drink a rehydration solution as often and as much as he wants until the diarrhea stops.

HOW TO PREPARE ORS

Materials:

1 ORS sachet
1 small glass for tea )
OR
1 large drinking glass )
1 water container
1 mixing spoon
AND/OR
1 teaspoon
The cleanest available water
1 cup for feeding

Method:

1. Wash hands with SOAP and water.
2. Wash glass, water container, and spoons.
3. Measure 1 litre (8 small glasses or 4 large glasses of clean water into the water container.
4. Pour all the powder from one ORS sachet into the water and mix well until the powder is completely dissolved.
   Never use the powder alone.

ORS should immediately be offered to a person with diarrhea and continue to be given as often as possible. ORS should be administered to children with a clean cup and spoon.

Fresh ORS should be mixed each day in a clean container. The container should be kept covered. Any solution remaining from the day before should be thrown away.
Chapter 6  

Disease and Disease Prevention

BENEFITS OF ORAL REHYDRATION SOLUTION:

1. Rehydrates
2. Requires no cooking.
3. Ingredients are premeasured.

HOW TO PREPARE WHEAT WATER SOLUTION

Materials:
2 closed fists of Wheat Flour
2 3-finger pinches of salt
1 small glass for tea )
OR
1 large drinking glass )
1 cooking pot
1 mixing spoon
AND/OR
1 teaspoon
Clean water
1 cup for feeding

Method:
1. Wash hands with SOAP and water.
2. Wash glass, pot, spoons and bowl.
3. Measure 8 small glasses OR 4 large glasses of clean water into the cooking pot.
4. Mix in Wheat Flour and salt.
5. Cook until boiling. Serve warm or cold.

WWS should immediately be offered to a person with diarrhea and continue to be given as long as diarrhea last. WWS should be fed to young children with a cup and spoon.

Note: Fresh WWS should be prepared daily. During the day WWS should be stored in a cool place in a clean, covered container.

BENEFITS OF WHEAT WATER SOLUTION:

1. Reduces frequency and duration of diarrhea.
2. Reduces vomiting, improves appetite.
3. Rehydrates faster.
HOW TO PREPARE SUGAR AND SALT SOLUTION

Materials:
8 level teaspoon of Sugar
1 level teaspoon of Salt
1 small glass for tea )
OR
1 large drinking glass )
1 water container
1 teaspoon
1 knife
The cleanest available water
1 cup for feeding

Method:
1. Wash hands with SOAP and water.
2. Wash glass, water container, and spoons.
3. Measure 1 litre (8 small glasses or 4 large glasses of clean water into the water container.
4. Level 1 teaspoon of salt with a knife and mix it into the water.
5. Check the amount of salt by tasting the mixture. It should taste no more salty than tears.
6. Measure 8 level teaspoons of sugar and mix into the water.

SSS should immediately be offered to a person with diarrhea and continue to be given as often as possible. SSS should be administered to children with a clean cup and spoon.

Fresh SSS should be mixed each day in a clean container. The container should be kept covered. Any solution remaining from the day before should be thrown away.

BENEFITS OF SUGAR AND SALT SOLUTIONS:
1. Rehydrates.
2. Ingredients are readily available in the household.
3. No cooking required.
**WARNING**

Measurement of ingredients must be accurate, especially for ORS and SSS, or the rehydration solution will be dangerous for the sick person.

### Treatment of Diarrhea and Dehydration

Diarrhoea and dehydration must be treated with:

<table>
<thead>
<tr>
<th>REHYDRATION SOLUTION</th>
<th>INCREASED FLUIDS</th>
<th>INCREASED BREASTFEEDING</th>
<th>INCREASED NUTRITIONAL FOODS</th>
</tr>
</thead>
</table>

If diarrhea becomes serious the person should go to the BHU or clinic.

**Signs of Serious Diarrhea:**

1. Increasing diarrhea.
3. Fever.
4. Vomiting.
5. Will not eat/drink.
6. Dehydration.

When diarrhoea subsides an extra meal each day should be given for two weeks.

**Basic Health Messages for Diarrhea**

1. Diarrhea can kill by draining too much liquid and salts from the body.
2. A person with diarrhea must take extra fluids frequently as long as the diarrhoea lasts.
3. A person with diarrhea needs extra nutritious foods.
4. If a person's diarrhea is serious it is important to seek medical help.

**Basic Health Messages for Rehydration Solutions:**

1. Diarrhea can kill by draining too much liquid from the body.
2. Liquid lost during diarrhea can be replaced by drinking fluids.
3. Rehydration Solutions are fluids that can save lives if made and taken (given) properly.
The Role of the CHE
The CHE must concentrate his teaching on Prevention emphasising:

1. The BASIC HEALTH MESSAGES FOR DIARRHEA
2. The BASIC HEALTH MESSAGES FOR REHYDRATION SOLUTIONS.
3. The correct way to MAKE AND ADMINISTER ORS, WWS AND SSS.
4. The importance of BREASTFEEDING
5. The importance of GOOD NUTRITION and INCREASED INTAKE of food during and after diarrhea.
6. The importance of CLEAN WATER FOR DRINKING
7. Clean hands and the importance of SOAP.
8. The danger of FLIES
9. The signs of serious diarrhea and when to GO TO THE BHU OR CLINIC

*****************************************************
* SUMMARY
* *
* Source of Infection: Person with/just had diarrhea *
* Organism: Microbe *
* Transmission: Hands, food, water, flies, animals *
* Port of Entry: Mouth *
* Prevention: Health Education *
* Latrines *
* Clean food and drinking water *
* Clean Housing *
* Clean hands *
* Control of flies and other pests *
* Symptoms: Frequent watery stools, dehydration *
* Treatment: Rehydration Solution *
* Increased fluids *
* Increased nutritious foods *
* Breastfeeding *
*****************************************************
6.2 ACUTE RESPIRATORY INFECTION (ARI)

What is Acute Respiratory Infection (ARI)?
ARI is an acute infection of the airways and the lungs. It is most commonly seen during the cooler weather in young and weak people. It normally begins as a common cold and can develop into a more severe illness when not properly treated.

Cause of Acute Respiratory Infection
The common cold is not an acute respiratory infection. It is one of the most common causes of visits to the BHUs and clinics and is caused by viruses growing in the nose. Sneezing, watery eyes, runny nose, a sore throat, cough and sometimes a fever are the signs of a common cold.

A cold is spread in different ways. Most commonly a sick person coughs and spreads small droplets of the virus through the air which are breathed in by other people. The virus can also contracted by mouth on hands, spoons and glasses infected by a person with a cold. Overcrowded and unhygienic living conditions contribute to the spread of the virus.

A cold, if treated properly almost always goes away without medicine. Antibiotics do not kill viruses so they do not help cure a cold. Antibiotics should not be used for a cold. Most cough syrups are useless and a waste of money.

When a person is very young or weakened by age, malnutrition, cold weather or disease, his body's natural defences and normal treatment are not enough to overcome the infection. He may become very sick and he may develop an Acute Respiratory Infection.

Prevention of Acute Respiratory Infection
Prevention of most ARI is very difficult. The main approach should be early and appropriate intervention.
Breastfeeding increases babies' natural defences and can prevent infants from getting ARI. If they do get it, the disease is much milder. It is important to continue breastfeeding until a child has reached the age of two while introducing additional foods into a babies' diet at four months. Well nourished children with strong healthy bodies are much more able to recover quickly from a common cold without developing serious infections.

Immunisation plays an important role in the control and prevention of some serious respiratory diseases. Vaccine should be given to children in their infancy to prevent pertussis, diptheria and tuberculosis. The vaccine for measles will also control the serious side effect of ARI.
When a person is cold he is more susceptible to disease. People, especially children, should dress warmly during the cooler season. The air in the house should be fresh and free of smoke and dust which will make a simple respiratory problem worse.

Preventing the spread of air-borne microbes is essential in keeping others free from respiratory infections. Important measures that should be taken are:

- separating people sick with a cold or ARI from the young and the weak
- covering the mouth when sneezing and coughing
- maintaining good personal hygiene including hand washing especially when handling a person sick with a cold or ARI
- using a separate drinking glass and spoon for the sick person.
- keeping the environment clean and avoiding overcrowding

**Treatment of Acute Respiratory Infection (ARI)**
A common cold cannot be helped with medicines. A healthy person will recover in a few days if they:

* continue breastfeeding (children under 2 years)
* continue to eat nutritious meals
* keep warm
* drink plenty of fluids
* take paracetamol to lower a fever or relieve a headache or body pains

It is important to know how to recognise the difference between a common cold and ARI. ARI is a serious infection which can kill. When a person has ARI it is essential to seek medical help at the BHU or clinic.

**IF.....**

* a cough with fever lasts for three days and is not improving
* an infant begins breathing more quickly than normal
* skin between the ribs is sucked in when breathing
* mucous from the nose or throat is thick and yellow or green
* places on the neck swell or there are white spots on the back of the throat

**THEN MEDICAL HELP SHOULD BE SOUGHT AT THE BHU OR CLINIC IMMEDIATELY**
Chapter 6 Disease and Disease Prevention

**BASIC HEALTH MESSAGES FOR ARI**

1. If a child with a cough is breathing more rapidly than normal, the child is a risk and medical attention should be sought immediately.

2. A child with a cough or cold should be helped to eat and to drink plenty of fluids.

3. Children that are breastfed, well nourished and fully immunised are less likely to get ARI.

**The Role of the CHE**

The CHE must concentrate his teaching on Prevention emphasising:

1. The BASIC HEALTH MESSAGES FOR ARI

2. The importance of BREASTFEEDING and IMMUNISATION

3. The importance of PERSONAL HYGIENE and HAND WASHING

4. The importance of maintaining a CLEAN LIVING ENVIRONMENT

5. People sick with a cold must be kept WARM, WELL NOURISHED and given PLENTY OF FLUIDS to drink

4. The spread of ARI must be controlled by:
   - COVERING THE MOUTH when coughing
   - ISOLATING a person sick with a cold or ARI from the young and the weak
   - HANDWASHING
   - keeping separate a sick person’s DRINKING GLASS and SPOON
   - avoiding OVERCROWDING

************************************************************************************
* SUMMARY                                  *
* *
* Source of Infection : Person with respiratory infection *
* Organism : Microbe (viruses cause the common cold) *
* Transmission : Airborne droplets *
* Port of Entry : Mouth and nose *
*
* continued on page 6-11 *
************************************************************************************
6.3 MALARIA

What is Malaria?
Malaria is one of the most serious diseases occurring in the Afghan camps in Pakistan. It is not as common in Afghanistan although certain areas are seriously affected.

Malaria is passed from one person to another by the mosquito. It is a disease that affects the blood and liver. Malaria damages the blood and causes it to become thin (anemia). It causes high fevers, headache, severe body pains and if it spreads to the brain can cause convulsions and death.

People are susceptible to malaria at any age. Small children tolerate malaria attacks poorly and die easily. Pregnant women are especially susceptible and the baby inside the womb is affected by the disease even more than the mother. This may cause labour to start too early or death to the unborn child.

Cause of Malaria
Malaria is caused by a microbe called the malaria parasite. There are four different kinds of malaria parasites, only two exist in this area of the world. The parasites live part of their lives in the human body (in the liver and blood), and the other part of their lives in the mosquito.

When a mosquito bites a person sick with malaria who already has a large number of parasites in his blood, some of the parasites enter the body of the mosquito. In this way, the mosquito becomes a carrier of the malaria parasite. For the next feeding, the mosquito bites another person who is healthy and injects some parasites into his blood. The healthy person then becomes sick with malaria.

The living conditions of the malaria mosquito are related to the climate. Mosquitoes are not able to exist in areas that...
are too cold, such as in the mountains. Warm temperature and humidity are the right conditions for the mosquito to breed. Malaria is most prevalent during the rainy season.

The mosquito lives during the day in the places of shade like houses, latrines and gardens. It lays eggs on the surface of stagnant water. Even just a small collection of water inside an old tire or in a discarded tin can is enough for the mosquito to deposit eggs. During the evening and night, the mosquito becomes hungry and departs its shelter in search of human blood.

Prevention of Malaria
There are four main approaches to the control of malaria. All are important and all should be used together for the prevention of malaria.

1. PREVENTING MOSQUITOS FROM BITING
2. PREVENTING MOSQUITOS FROM BREEDING
3. KILLING MOSQUITOS
4. KILLING MOSQUITO LARVAE

Preventing Mosquitoes from Biting
Avoid areas where mosquitoes thrive during the evening when they feed. These places are cool, grassy, moist areas. Sleep under the protection of bednets, especially during the rainy season. Windows should be covered with netting, most importantly in rooms where family members are sleeping.

Preventing Mosquitoes from Breeding
Water which collects and stands in compounds and communities should be drained, grass should be cut and a clean environment maintained.

Killing Mosquitoes
Use spray (eg. Malathion) on the walls in houses when malaria season is approaching.

Killing Mosquito Larvae
Spraying of mosquito breeding areas in and around a community should be done seasonally during the periods when mosquitoes are breeding.
Treatment of Malaria

Malaria should be treated only at the BHU or clinic. If a person experiences signs and symptoms of malaria which persist for more than two days (one day for pregnant women) he should seek medical help immediately.

SIGNS AND SYMPTOMS OF MALARIA

* High fever, often intermittent
* Headache and body pain
* Sweating and shivering, often intermittent
* Sometimes vomiting and diarrhea (especially with children)

At the BHU or clinic a blood test will be taken. Since the malaria parasite lives in the blood a trained technician can spot the parasite under a microscope. If the test is positive for malaria, treatment will be started immediately. The treatment must be strictly followed. The fever of a person sick with malaria should be controlled with Paracetamol and cool water sponge baths. He should be given plenty of fluids to drink and as much food as he can tolerate. If the illness becomes worse the person should return to the BHU or clinic immediately.

New blood tests should be taken again on the 7th and 28th day after the start of treatment to assure that the parasite has been killed.

Pregnant women should have their blood tested, especially during seasons of high risk, if they have any reason to believe they may have malaria.

BASIC HEALTH MESSAGES FOR MALARIA

1. Malaria is transmitted by mosquito and can cause serious illness and death
2. Young children should be protected from mosquito bites, especially at night
3. It is important to destroy mosquito larvae and to prevent mosquitoes from breeding
4. A person with a persistent fever should see a health worker
5. A person with malaria must take all antimalarial drugs as ordered by the health worker
The Role of the CHE

The CHE must concentrate his teaching on Prevention emphasising:

1. The **BASIC HEALTH MESSAGES FOR MALARIA**
2. how *MOSQUITOS* can be controlled
3. why **ENVIRONMENTAL HYGIENE** is important
4. the serious effects malaria has on the **YOUNG** and on **PREGNANT WOMEN**
5. how to recognise the **SIGNS OF MALARIA** and what to do
6. how to **CARE** for a person with malaria

Community Health Committees should also know:

1. To alert officials if there are many cases of malaria in the community
2. The benefits of spraying homes against mosquitoes
3. The benefits of spraying ponds against mosquitoes
4. Where to find and how to destroy mosquito larvae

* SUMMARY *

* Source of Infection: Persons with Malaria *
* Organism: *Mosquito* parasite *
* Transmission: Mosquito/mosquito bite *
* Port of Entry: Skin *
* Prevention: Health Education *
* Mosquito control *
* Bed and window nets *
* Symptoms: Intermittent fever *
* Chills, headache, bodyache *
* Treatment: Medical assistance at clinic *
* or BHU, fever control, fluids *
* nourishment *

***************************************************************
6.4 WORMS

What are Worms?
Worms are tiny parasites that live inside human intestines. They draw blood from the walls of the intestines and sustenance from the food that passes through the alimentary tract. Large numbers of worms in the intestines cause weakness, anemia and discomfort.

Worms are different from microbes. Microbes live and multiply inside the body. Worms live in the human body but multiply by passing their eggs in stool onto the ground. The worms hatch from the eggs and must enter a human body again they are to survive. This is called their "Life Cycle".

What Causes Worms?
Different worms enter the body in one of two ways:

1. Some worms hatch on the ground and then burrow their way through the skin (usually the soles of the feet), circulating through the body until they reach the intestines.

2. Other worms remain dormant as eggs outside until they are introduced (usually through the mouth on infected hands or food) into a human body. They hatch inside the body and live in the intestines.

Prevention of Worms
Worms can be prevented by breaking their life-cycle before they re-enter the body:

- through the use of shoes
- by keeping children from playing near latrines or infected ground
- by putting all faeces into latrines
- by washing hands carefully after using the latrine
- by washing hands before eating or handling food
- by trimming nails
- by controlling flies
Treatment for Worms

If a person suspects he or his child has worms he must go to the BHU or clinic for treatment.

**BASIC HEALTH MESSAGES FOR WORMS**

1. Worms in the body make us tired and ill.
2. Worms enter the body through the skin or through the mouth on dirty food and hands.
3. Avoid worms by wearing shoes, washing hands, trimming nails and protecting food from contamination.
4. Use a latrine to defaecate in and wash hands thoroughly afterwards.

The Role of the CHE

The CHE must concentrate his teaching on Prevention emphasising:

1. The **BASIC HEALTH MESSAGES FOR WORMS**
2. The importance of wearing **SHOES**
3. The proper use of **SAFE LATRINES**
4. The importance of **HANDWASHING**
5. The importance of **FLY** control
6. The need to seek **TREATMENT** at the BHU or clinic.

********************

* SUMMARY

* Source of Infection: Faeces
* Organism: Parasite
* Transmission: Hands, food, flies
* Port of Entry: Skin
* Mouth
* Prevention: Health Education
* Safe latrines
* Hand washing
* Safe food prep
* Control of flies
* Symptoms: Abdo discomfort
* Weakness
* Anemia
* Treatment: Medicine from BHU or clinic

********************
6.5 IMMUNIZATION

Infectious diseases cause many deaths in children. These diseases are caused by microbes that attack the body and that can be passed from one person to another.

The body can protect itself against some germs when the person is immunised. Immunisation means that a drug called a "vaccine" is injected into the body or swallowed. The vaccine protects the body against attacks from certain microbes.

Six common infectious diseases can be prevented by immunisation: Tuberculosis, diptheria, pertussis, tetanus, polio and measles.

What is Immunisation?
Immunisation is another of the essential elements of the Primary Health Care. It helps the body's natural defences against disease, and prevents people from catching certain diseases. A drug called a "vaccine" is introduced into the body, either through injection or by mouth. The vaccine stimulates the body to produce "antibodies". Antibodies are what attack and kill disease microbes when they enter the body.

When disease microbes enter the body of a person who have not been vaccinated, no antibodies are present to defend against the microbes and the person will become sick with the disease.

Immunisation of children is very important. The bodies of young children are less strong and able to fight infections. Many of the infectious diseases that can be prevented through immunisation are very dangerous and can kill.

A pregnant woman can pass her protective antibodies on to the baby growing in her stomach. It is also possible to pass on protection from vaccines through the mother's body to the unborn child. In this way, immunisation of pregnant women against tetanus is very important as tetanus is a disease that often attacks infants in their first few days of life.
BASIC HEALTH MESSAGES FOR IMMUNIZATION

1. A child who is not vaccinated is more likely to become sick, disabled and die.

2. All vaccination must be started as soon as possible after birth and should be completed in the first year of the child’s life.

3. Every woman should be fully vaccinated against tetanus to protect both herself and her baby.

4. Infants must complete the full course of vaccination or the vaccine will not work.

MORE ABOUT THE DISEASES THAT CAN BE IMMUNISED AGAINST:

6.6 TUBERCULOSIS

Tuberculosis (TB) is a long-lasting disease caused by a microbe called a "bacillus". TB is common where people live in crowded conditions and among people who are undernourished or weak.

TB is spread by an infected adult to another adult or child. Most often the disease is spread by coughing and spitting. Sometimes the bacillus is in cows milk which will cause TB if it is not treated by boiling.

When a person with TB coughs, sneezes, spits or talks droplets of his saliva containing the TB bacillus spread in the air. The bacillus can survive for months outside the body on places like utensils which a TB person has used or on the floor where he has spat.

Many people may be exposed to TB but only some will develop the illness. Usually those most vulnerable are weakened, malnourished or pregnant.

Most often only the lungs of a person with TB will be affected. The person will have a cough that lasts for more than two months. He may experience weight loss, mild fevers, chest pain and weakness. If the TB is severe he will cough up blood. TB of the lungs is highly infectious.

TB can also affect other parts of the body such as the kidneys, bones, neck and brain. This kind of TB is seen more often in children and is not infectious.
Prevention of TB
Healthy people seldom become sick with TB. It is therefore important to prevent TB by eating well and maintaining good personal hygiene. Hand washing is especially important.

A clean home environment prevents the long living bacillus from finding places where they can remain undisturbed.

People must be aware of what the signs of TB are. They must visit the BHU or clinic or take the young or the weak if TB is suspected.

A person who has been found to have TB should always cover his mouth when coughing and wash his hands frequently. He should keep separate eating utensils and avoid direct contact with others during the first two weeks of his therapy. TB therapy must continue or more than half a year.

ALL CHILDREN SHOULD BE IMMUNISED AGAINST TB AS SOON AS POSSIBLE AFTER BIRTH.

THE TB VACCINE IS CALLED "BCG". IT IS AN INJECTION WHICH CAN BE GIVEN AT THE BHU OR CLINIC AND BY HOUSE-TO-HOUSE VACCINATORS. BCG LEAVES A SMALL SCAR WHICH IS VISIBLE ON THE UPPER ARM OF A CHILD WHO HAS BEEN VACCINATED.

BCG PROVIDES PROTECTION AGAINST TB.

Treatment of TB
TB is a curable disease. It is important that a person with TB receive treatment as soon as possible. People who are suspected of having TB in their lungs should go to the BHU or clinic immediately. A chest x-ray and sputum sample will be taken. The TB bacillus that lives in the lungs can be seen in the sputum by a trained technician with a microscope. TB can also be seen in an x-ray.

All others who have had close prolonged contact with a person who has been found to have TB must also be checked.

SIGNS OF PULMONARY TB
* COUGH for two weeks or more
* unexplained FEVER for two weeks or more
* TIREDNESS WEIGHT LOSS
* CHEST PAIN for two weeks or more
* coughing BLOOD
TB develops and goes away very slowly. Treatment of the disease takes more than half a year. It is dangerous for a TB patient to stop taking medication before he has completed treatment. TB bacillus that have not been killed become stronger and TB medicine will lose its effect. The person will become sick with TB again and it will be much harder to cure.

The Role of the CHE
The CHE must concentrate his teaching on Prevention emphasising:

1. The BASIC HEALTH MESSAGES FOR IMMUNISATION
2. the importance of PERSONAL HYGIENE
3. The importance of keeping a CLEAN LIVING ENVIRONMENT
4. The SIGNS of TB
5. avoiding CONTACT with people sick with TB
6. that TB sick people should:
   - frequently WASH THEIR HANDS
   - COVER THEIR MOUTH when coughing
   - NOT SPIT on the ground
   - BURN AND BURY SPUTUM
   - avoid DIRECT CONTACT with others during the first two weeks of treatment
   - keep their cups and utensils SEPARATE from others
   - begin treatment IMMEDIATELY and CONTINUE strictly according to medical orders until COMPLETE

******************************************************************************
* SUMMARY * *
* * Source of Infection : Persons sick with TB *
* * : Cattle with TB *
* Organisms : Microbe (TB Bacillus) *
* Transmission : Air-borne (coughing, spitting) *
* Milk *
* Port of Entry : Mouth and nose *
* Prevention : Health Education *
* : Immunisation *
* : Personal Hygiene *
* : Environmental Hygiene *
* : Isolation of TB patient *
* Symptoms : cough, fever, weight loss, *
* : coughing blood *
* Treatment : Daily medicine for six months *
* : from the BHU or clinic *
* : Check persons in close contact *
******************************************************************************

6-20
Chapter 6

Disease and
Disease Prevention

6.7 MEASLES

Measles is a dangerous disease caused by a virus which affects babies and young children. It appears as a fever with skin rash and sore throat.

Measles is highly infectious and many children in a community can be affected at the same time. Some very young or weak children suffer serious complications which often result in death.

VACCINES CAN PREVENT MEASLES.

What is Measles?
Measles is caused by a virus. When a child has measles his body produces a protective antibody which will give him future life long protection against the disease. He can not catch measles a second time.

A child with measles can easily infect other children as long as he has a rash. Measles is spread through direct contact and is transmitted through the air on droplets that are sneezed or coughed.

When a child is infected he will develop a fever and experience irritation of the eyes and throat. Soon a rash appears on the face and eventually spreads to the whole body. The rash usually lasts for five to seven days. When the skin rash disappears the disease is usually over.

Measles is frequently accompanied by diarrhea. It is so commonly a complication of Measles that it has come to be known as "measles diarrhea". Some Afghans believe that a child with measles diarrhea should be given nothing to drink or eat. This practice which causes the child to become dangerously weak and malnourished and often ends in death of the child.

Sometimes very young or weak children develop other complications. The most frequent complication is ARI. Another occurs when an infection spreads to the brain. When these complications occur they can also be very serious and life threatening.

Prevention of Measles
Mothers who breast feed their infants pass on natural antibodies in the breastmilk. This is effective protection for a baby up until nine months of age.

Children who have measles should be kept away from other children until their rash subsides.
ALL CHILDREN SHOULD BE IMMUNISED AGAINST MEASLES AT NINE MONTHS OF AGE.

MEASLES VACCINE IS GIVEN BY INJECTION AT THE BHU OR CLINIC AND BY HOME-TO-HOME VACCINATORS.

MEASLES VACCINE PROVIDES PROTECTION AGAINST THE DISEASE.

Treatment for Measles

No medicines are effective against Measles. Sick children with measles should stay at home, separated from other children. They should be kept warm, given plenty of fluids and nutritious foods. Young children should continue to be breastfed. For fever, Paracetamol may be given with cool water sponge baths.

If any of the following signs of complications occur, the child must be taken to the BHU or clinic immediately:

<table>
<thead>
<tr>
<th>SIGNS OF COMPLICATIONS WHICH MAY OCCUR WITH MEASLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>* continued fever and tiredness for more than 5 days</td>
</tr>
<tr>
<td>* breathlessness and/or rapid breathing</td>
</tr>
<tr>
<td>* severe headache</td>
</tr>
<tr>
<td>* discomfort caused by light</td>
</tr>
</tbody>
</table>

The Role of the CHE

The CHE must concentrate his teaching on Prevention emphasising:

1. The BASIC HEALTH MESSAGES FOR IMMUNISATION

2. that measles is a highly CONTAGIOUS disease that may occur with LIFE-THREATENING COMPLICATIONS

3. the signs of COMPLICATIONS and the importance of seeking MEDICAL HELP

4. the importance of BREASTFEEDING

5. that children with measles must be ISOLATED from other children

6-22
SUMMARY

Source of Infection: Person with measles
Organism: Microbe (virus)
Transmission: Air-borne (coughing, sneezing, direct contact)
Port of Entry: Mouth and nose
Prevention: Health Education, Immunisation, Breastfeeding, Isolation of children with measles
Symptoms: Fever, sore throat and eyes, then skin rash
Complications: rapid breathing, severe headache, prolonged fever
Treatment: Fluids, nutritious foods, warm environment, BHU or clinic is complications occur

6.8 POLIO

What is Polio?
Polio is a disease caused by the Polio virus. It lives in the stools of humans infected by Polio and is usually spread from person to person in one of two ways:

1. THROUGH UNWASHED HANDS THAT ARE CONTAMINATED WITH INFECTED STOOLS (most common)

2. THROUGH DRINKING WATER CONTAMINATED WITH INFECTED STOOLS

It causes an illness which is much like a flu. Most children recover without problems but some go on to develop more intense flu symptoms, body pain, vomiting and diarrhea and later, weakness of limbs. If the infection is severe and affects the brain, paralysis occurs in one or both legs and may extend to the arms. If the paralysis affects breathing the person will die.

Hands, food or water that is contaminated by the stool of a person sick with polio will cause the disease in a healthy person. Contamination is most often caused by inadequate hand washing after defaecating. The virus can also be spread by flies and rats.
Prevention of Polio

Polio is a serious disease. Contamination must be prevented through personal hygiene, fly control and maintenance of a clean living environment. Latrines should be protected from rats and flies and people should wash their hands thoroughly with SOAP and water after defaecating, before cooking and before eating. Water sources must be protected from stool contamination. Drinking water and food must be clean and protected.

A person sick with Polio must be kept isolated from others until he has recovered. This means careful separation of the person's eating utensils and clothing and hand washing after direct contact.

**ALL CHILDREN SHOULD BE IMMUNISED AGAINST POLIO.**

**THE POLIO VACCINE IS GIVEN ORALLY IN THREE DOSES DURING THE FIRST YEAR OF LIFE. THREE MORE DOSES MUST BE GIVEN AT 1 YEAR, 5 YEARS AND 6 YEARS OF AGE. THE VACCINE IS GIVEN AT THE BHU OR CLINIC AND BY HOUSE-TO-HOUSE VACCINATORS.**

**POLIO VACCINE OFFERS EFFECTIVE PROTECTION AGAINST THE DISEASE.**

Treatment of Polio

There is no effective treatment for Polio. Prevention is crucial.

There are no effective medicines to treat polio or to prevent paralysis from occurring. If a person sick with polio becomes paralysed there is no treatment available to reverse the paralysis.

Physiotherapy or training of the muscles can help stabilise legs. Crutches or prosthetics are often required to assist with mobilisation.

Role of the CHE

The CHE must concentrate his teaching on Prevention emphasising:

1. the BASIC HEALTH MESSAGES FOR IMMUNISATION
2. the importance of PREVENTION
3. the importance of HAND WASHING and PERSONAL HYGIENE
4. the importance of protecting FOOD and DRINKING WATER
5. that FLIES and RATS must be controlled by maintaining a CLEAN LIVING ENVIRONMENT and a SAFE LATRINE

6. that a person with polio must be kept ISOLATED until he has recovered

*****************************************************************************************************************************

* SUMMARY

* Source of Infection : Person with Acute Polio

* Organism : Microbe (virus)

* Transmission : Fecal - oral (by contaminated hands, food and water)

* Port of Entry : Mouth

* Prevention : Health Education

* Health Education

* Immunisation

* Handwashing with SOAP and water

* Protected latrines

* Fly and rat control

* Treatment : None

*****************************************************************************************************************************

6.9 TETANUS

Tetanus is an acute disease caused by a microbe called the "tetanus bacillus". It is usually the result of a wound from a dirty instrument or a wound that becomes contaminated with soil, dirt, animal or human faeces.

It can be fatal and is almost always fatal if contracted by a newborn. Vaccinations can prevent Polio.

What is Tetanus?

When an unimmunized person is infected with the tetanus bacillus he begins to feel stiffness in his neck. Soon his body will begin to stiffen and he may begin to have spasms. The jaw of a person with tetanus becomes so stiff that he will wear an expression of grimacing that is a common sign of tetanus. Typically a newborns with tetanus will begin having difficulties sucking his mothers milk a few days after delivery.

Tetanus is common in newborns in areas where the umbilical cord is traditionally covered in dung and wrapped. The tetanus bacillus is also introduced into newborns when dirty instruments are used to cut the cord. Once infected a newborn has very little chance of survival.

Adults, who are stronger and more able to fight the disease have a greater chance of survival
Prevention of Tetanus

Vaccinations can prevent Tetanus. A mother who is vaccinated twice during her pregnancy passes on the immunity to the baby she carries in her stomach. When the baby is borne he will be protected from the tetanus bacillus for a number of months.

All children should receive a vaccine called "DPT" at one and a half, two and a half and three and a half months of age. This will provide further protection against the disease in later life.

All wounds should be immediately washed well with SOAP and water and dressed with a clean cloth. When a person who has not been immunized is cut by a dirty object or gets a wound contaminated, he should also take the precaution of getting a tetanus injection to prevent the disease.

Prevention against wounds (refer to 8.2 Wounds) must always be taken so that the risk of tetanus never arises. The umbilical cord of an newborn should always be cut with a sterile instrument and wrapped with a clean cloth.

| ALL PREGNANT WOMEN SHOULD BE IMMUNIZED AGAINST TETANUS. |
| ANY PERSON WHO RECEIVES A WOUND FROM A DIRTY OBJECT SHOULD GET A TETANUS INJECTION. |
| THE TETANUS VACCINE IS GIVEN BY INJECTION AT THE BHU OR CLINIC AND BY HOUSE-TO-HOUSE VACCINATORS. |

TETANUS VACCINE OFFERS EFFECTIVE PROTECTION AGAINST THE DISEASE.

Treatment of Tetanus

If a person receives a tetanus infection through a break in his skin and does not get an immediate inoculation against the virus, he will begin to feel the symptoms of tetanus within one or two weeks. He will have a poor chance of survival and will have to be hospitalised. The sooner he is taken to a hospital the more likely are his chances to survive.

Role of the CHE

The CHE must concentrate his teaching on Prevention emphasising:

1. the BASIC HEALTH MESSAGES FOR IMMUNIZATION
2. the BASIC HEALTH MESSAGES FOR WOUNDS
3. that tetanus is a DEADLY DISEASE

4. the importance of tetanus vaccination to PREGNANT MOTHERS

5. the importance of STERILE CORD CARE in newborns

6. how ENVIRONMENTAL HYGIENE relates to tetanus.
CHAPTER 7
INJURY PREVENTION
and the
MISUSE OF MEDICINES

OBJECTIVES:

By the end of Chapter 7 the learner will be able to:

1. Describe 3 degrees of Burns.
2. List 8 precautions toward the prevention of Burns.
3. Describe how the 3 degrees of Burns should be treated.
4. Relate the role of the CHE in the prevention of Burns.
5. Define a Wound.
6. Discuss ways in which Wounds can be prevented.
7. Describe the treatment of Wounds.
8. Discuss the Use and Misuse of Medicines.
9. Know the Basic Health Messages for: Burns

7.1 BURNS

Burns are caused by fire, hot or burning objects, boiling water, electric shocks and some chemicals. The size of the area of skin that is burned determines the severity of the injury. It may be dangerous and cause death when a large area of the skin is burned.

A burn is always painful. When caring for a burn it is important to keep the area as clean as possible to prevent microbes from entering into the wound.

The main causes of burns among the Afghan community are cooking fires, nan ovens, boiling water and kerosene stoves or lamps. Things that stick to the skin like hot cooking oil or ghee cause severe burns. Electrical burns are almost always very deep.

The Physiology of a Burn

Our bodies are protected by a surface layer of skin called the "dermis" layer. In healthy people the skin is intact. Through it most microbes cannot enter. Below the skin lies another layer of tissue over our muscles. It is called the "epidermis" and it is much thicker than the skin. Deeply in the Epidermis is where our hair is rooted and where small
blood vessels and nerves are located. These nerves allow us to feel touch, pain, cold and hot.

The "deepness" and size of a burn depends on how hot the object was that contacted the skin, the length of time it was in contact and what it was that made contact (example: fire or water or electricity)

Burns are divided into three groups:
1) minor burns
2) burns which cause blisters
3) deep burns

Minor Burns
Minor burns only involve the outer dermal layer of skin. There is pain, redness and possibly, swelling but no blisters.

Burns Which Cause Blisters
These burns involve the outer layer of skin and also reach deeper epidermal layers. The results are pain, redness, swelling and blistering.

Deep Burns
Deep burns involve the destruction of both layers of skin and may include muscles.

Prevention of Burns
Most burns occur in the home and can be prevented through extra precautions around cooking areas:

* KEEP CHILDREN AWAY from cooking areas and nan ovens
* RAISE STOVES or FIRES half a meter from the ground so that children cannot reach them
* locate cooking areas AWAY FROM SLEEPING PLACES
* put a GUARD around the fire and nan ovens
* keep hot water, fires, matches, lanterns and chemicals OUT OF THE REACH OF CHILDREN
* women must keep clothing out of the way of open flames
* if ghee or cooking oil catches flames it EXPLODES, extra care must be taken at all times
* electrical wires must be INTACT and OUT OF DIRECT ACCESS
Treatment of a Burn

The treatment for burns differs with the degree of severity of the injury. There are some general rules which apply to all burns regardless of how superficial they may be:

- apply nothing to a burn, no ointment, ghee, toothpaste, nothing.

- burns that are larger than the size of two hands of the person who has been burnt must be taken to a doctor immediately

- burns to the face, hands, genitals or female breasts must be taken to a doctor immediately

- a person who has been burned and experiences breathing problems must be taken to a doctor immediately

For minor burns:
To ease the pain, place the burn in cool water and take Paracetamol.

For burns that cause blisters:
Place the burn in cool water until the pain begins to lessen. Wash with soap and dry with a clean cloth. Do not break the blisters. Take Paracetamol for pain.

Continue to apply clean bandages to the burn for one week. If the skin begins to smell or if there is white or yellow discharge from the wound, go to the BHU or clinic

For deep burns:
Immediately begin pouring clean water on the burn until the pain begins to decrease. Lightly cover the burn with a clean cloth to prevent dirt from entering the wound. Wrap the person in a warm blanket and transport to a BHU, clinic or hospital immediately.

If the person can drink, give plenty of fluids.

BASIC HEALTH MESSAGES FOR BURNS

1. Caution must be taken around cooking areas and nan ovens, especially with children

2. When burns occur immerse the burn in cool water, wrap in a clean cloth and give fluids.

3. When a burn is large or reaches through the skin, medical attention should be sought.
The Role of the CHE
The CHE must concentrate his teaching on Prevention emphasising:

* the BASIC HEALTH MESSAGES FOR BURNS
* that cooking areas are DANGEROUS PLACES for children
* what PRECAUTIONS need to be taken to prevent burns
* the difference between MILD, MODERATE and SEVERE BURNS
* how to CARE FOR BURNS

7.2 WOUNDS

A wound is a tear or a cut in the skin. A wound may be superficial (only involving the dermis) or deep (into epidermis and may even reach into the muscles). All wounds bleed, are painful and can easily become infected.

Wounds are most often caused by knives, broken glass, falls or road accidents. Deep wounds that drain a lot of blood can be life threatening.

When a wound is inflicted with a dirty object there is a risk of Tetanus entering and infecting the body (refer to 6.7 Tetanus). Tetanus is a dangerous disease which often results in death.

Prevention of Wounds
Preventable wounds are almost always a result of carelessness. Inside the house there are many things that can potentially inflict wounds. Items like knives, glass and tins with ragged edges should be kept out of the way of children. Litter should be removed from the living environment, burned and buried. Caution must always be taken when handling sharp objects.

All children should be immunized against tetanus. If a person who has not been immunized is wounded by a dirty object, he should seek medical help immediately.

A vehicle that hits a person, even when it is travelling slowly, will cause senseless pain, suffering and often death. Children should never be left unattended near roadways. They must be taught to understand the dangers of fast moving vehicles. Both children and adults should never approach a roadway without checking carefully for oncoming vehicles.
Treatment of Wounds

Stop any bleeding by applying direct pressure to the wound site with a clean cloth. It is important to keep the wound clean. When the bleeding has stopped, wash the wound with soap and water and dress it with a clean cloth. A wound must be inspected, cleaned and dressed with a clean cloth every day.

In some cases a wound should always be seen by a medical person. If a wound is:

- DEEP AND/OR DIRTY
- ON THE FACE, GENITALS OR DEEP ON THE ABDOMEN
- STARTING TO SMELL OR PRODUCE PUS
- CAUSING TENDER POINTS NEAR THE GROIN OR ARMPITS
- CAUSING FEVER OR CHILLS

******************
* SEEK MEDICAL HELP *
* IMMEDIATELY *
******************

BASIC HEALTH MESSAGES FOR WOUNDS

1. Wounds to the body must be kept clean.

2. Dirty wounds can allow tetanus microbes to enter the body.

3. Tetanus causes the body to become stiff and may cause death.

Role of the CHE

The CHE must concentrate his teaching on Prevention emphasising:

1. the BASIC HEALTH MESSAGES FOR WOUNDS
2. PRECAUTIONS necessary to prevent wounds
3. how to TREAT wounds
4. when to seek MEDICAL HELP

5. the DANGERS OF TETANUS

7.3 THE USE AND MISUSE OF MEDICINE

The body of a healthy person is equipped with its own disease-fighting mechanism. Antibodies which are produced in our bodies naturally are capable of fighting and overcoming most mild infections. Just as when we cut ourselves and mechanisms within our body stops the bleeding and begins the healing process, when we become ill cell within our body mobilise to stop the infection and begin the healing process.

Medicines are designed to assist the body to help fight a disease which the body cannot fight on its own. When medicines are taken when they are not needed or too often or incorrectly it lowers the bodies ability to fight a disease on its own. It helps the disease microbes to build up protection against the drug so it loses its affects.

The incorrect use of medicines can be even more dangerous. Every drug can kill if taken in the wrong quantity, at the wrong time or by the wrong person.

Drugs are easily available in Pakistan and Afghanistan. They are over prescribed and over used. Many local "doctors" are untrained and have little understanding about the benefits and dangers of the medicines they sell. They are businessmen who try to sell as much medicine as possible. In many cases, they cause more harm than good.

Serious diseases or infections need to be seen by a trained medical person. Only well trained health care personnel know how to diagnose a disease. Only well trained health care staff know when it is necessary to take medications, which medicines should be used and what the correct dosage is.

ALL MEDICINES EXCEPT MILD PAINKILLERS, VITAMINS AND IRON MUST BE TAKEN ONLY IF PRESCRIBED AFTER A PROPER EXAMINATION BY A WELL TRAINED HEALTH CARE PROFESSIONAL.
When a person is ill and needs assistance to recover it is important that he:

- consult a WELL TRAINED MEDICAL PERSON
- only take medicine prescribed
- follow directions for taking the medicine - the correct AMOUNT at the correct TIME for the CORRECT NUMBER of TIMES each day
- continue to take the medicine until finished
- not give the medicine to any other person

Even when medicine is prescribed and taken correctly there is a possibility that a person may have an unpredictable reaction to the drug. Drug reactions can be very dangerous. The signs of a drug reaction are:

- ITCHING ON THE FACE
- SWELLING AROUND THE FACE
- SHORTNESS OF BREATH

**Role of the CHE**
The CHE must teach the correct use of medicine by emphasizing:

- that medicines should only be taken if prescribed by a WELL TRAINED HEALTH PROFESSIONAL
- that medicines must be taken according to the way they were ordered
- the DANGERS of the misuse of medicine
- the signs of a DRUG REACTION and what should be done in the case of a drug reaction

IF THESE SIGNS APPEAR - SEE A MEDICAL PERSON IMMEDIATELY
OBJECTIVES:

By the end of Chapter 8 the learner will be able to:

1. Explain the importance of Maternal and Child Health.
2. List and describe 5 important ways of decreasing the health risks of child bearing.
3. List and describe 5 important ways of decreasing health risks in childhood.
4. Know the optimal vaccination schedule for children.
5. Know the Basic Health Messages for: Maternal and Child Health Care of the Sick Child

Mothers are the bearers and nurturers of children and children are our future. They are the continuation of our blood, our hopes and aspirations and our ideals. The health of both mothers and children should therefore be of considerable concern to all members of a society which looks toward future of its people.

Maternal and Child Health (MCH) is one element of the Primary Health Care system. It’s objectives are for mothers to have healthy pregnancies, healthy deliveries and healthy children.

8.1 MATERNAL HEALTH

"Mothers are the fosterers and the first teachers of children"

Hadith Sharif

Afghan women sometimes die or become seriously ill as a result of pregnancy or giving birth. Most often the underlying causes are related to repeated pregnancies and a short interval between births. Thin blood is very common amongst Afghan women and it is made worse by pregnancy and child birth. It is a major contributing factor to the high risk of death and serious illness.

Women who become ill during pregnancy or who are in a poor nutritional state are likely to give birth to infants with a
low birth weight. These infants are at much more likely to die before their first birthday.

Among the Afghan refugee population an average woman can expect to be pregnant more than ten times in her life time. One out of every thirty of these women, dies during a pregnancy or delivery. Maternal mortality rates for women in Afghanistan are even higher. A large proportion of these deaths are preventable through improved antenatal care and better delivery practises. (Afghan Refugee Health Programme, Pakistan, Guidelines: Maternal and Child Health, CAR/UNHCR, Islamabad 1989)

There are five important ways of decreasing the health risks of child bearing that all families should be aware of:

1. Antenatal and postnatal supervision
2. Improved nutrition/increases iron consumption
3. Supervised delivery by a trained birth attendant
4. Immunization against Tetanus
5. Birth spacing

1. Antenatal and Postnatal Supervision
   All women should be examined by a trained medical person at least twice during pregnancy. Although a woman may feel healthy and normal throughout pregnancy, problems may exist which only a trained medical person can identify and take action against. If left, some problems can lead to serious complications late in pregnancy, during delivery or postpartum.

   Delivery is a difficult and draining process. During the first few postpartum days a trained birth attendant should visit and assess the mother and child to ensure that they are progressing normally.

   A baby in the womb is small and extremely vulnerable. Many drugs can cause a fetus to grow abnormally, harm or even kill it. Unqualified dispensers of medicines do not understand the harmful affect drugs have on an unborn baby. Medicines other than vitamins and iron should only be taken by a pregnant woman if they have been prescribed by a qualified medical person.

2. Improved Nutrition / Increased Iron Intake
   The growth that a person undergoes during his lifetime is never more rapid, complex or critical as the growing he does inside his mother's body.
Chapter 8  Maternal and Child Health

What a woman would normally eat for herself is not enough when she has a baby growing inside her. It is also not enough when the baby is taking his food from her breast.

Growth requires Body-building and Protective foods. A pregnant or lactating woman needs to eat twice as much as normal of these nutritious foods for her own health and the health of the baby.

Even during a normal delivery a large amount of the mother's blood is lost. Healthy blood requires Iron. For the body to cope with blood loss, blood must be healthy to begin with. For the body to replace lost blood Iron must be present in the diet. During pregnancy and during the postpartum period, a mother should eat plenty of iron-rich foods such as green vegetables, eggs and meat.

3. Supervised Delivery By a Trained Birth Attendant
Trained Birth Attendants understand the normal birthing process, but more importantly, they understand when things go wrong and when it is important to seek help.

Trained Birth Attendants are also experienced in clean and safe delivery practices. Their supervision during deliveries can prevent unforeseen harm of the mother or infant or infection of mother or child during the delivery process.

All deliveries should be attended and supervised by a Trained Birth Attendant.

4. Immunization Against Tetanus
Tetanus is responsible for about one third of neonatal deaths among Afghans. Tetanus in the mother and child may be prevented by giving tetanus injections at all pregnant women. Two injections are required. They must be given four weeks apart and completed four weeks prior to the expected date of delivery.

All pregnant women should visit a BHU or clinic at least twice during pregnancy for a physical examination and tetanus immunization.

5. Birth Spacing
The health of a mother and her children is closely associated with the mother's age during pregnancy, the number of previous pregnancies and the intervals between them.

A woman is only physically prepared for the rigours of childbearing when she herself has completed growing. Complications of child bearing are among the leading causes
death in young women less than twenty years of age. Most women do not reach child bearing age until they are twenty.

After a pregnancy a mother who is healthy and well nourished normally needs a period of 24 months to recover before starting another baby. This period of time allows the mother’s body to build up depleted stores of nutrients like Protein and Energy, Iron, Calcium and other minerals. Pregnancies which occur at smaller intervals deplete and weaken the mother and provide inadequate nutrients to a fetus for healthy growth and development.

A baby requires a period of mothering care in his early years. Such care means not only two years of breastfeeding and proper weaning, but also personal interaction and stimulation. This requires undivided time and energy from the parents.

Children born after a short birth interval are smaller and also tend to have more learning difficulties. They also tend to have a higher risk of illness and death. Ensuring adequate intervals between births is beneficial for the health of both the mother and the child.

5.2 CHILD HEALTH

"Children are the butterflies of paradise"

Hadith Sharif

For every 1,000 infants born to Afghan refugees in Pakistan, approximately 40 die before reaching 1 month of age, another 40 infants die before reaching their first birthday and another 40 die before reaching their fifth birthday. An even greater number will die in Afghanistan.

Diarrhea will be associated with about 35% of all the deaths from birth to 5 years of age. Acute respiratory infections, malnutrition and low birth weight will be significant contributing factors. Measles will still account for a significant percentage of deaths in unimmunized children. (Afghan Refugee Health Programme, Pakistan Guidelines: Maternal and Child Health, CAR/UNHCR Islamabad 1989)
There are five important ways of decreasing health risks in childhood that all families should be aware of:

1. Breastfeeding, proper weaning and feeding practices
2. Regular assessment of growth
3. Immunization
4. Protection from disease.
5. Prompt and sound management of childhood illnesses.

1. BREASTFEEDING, PROPER WEANING AND FEEDING PRACTICES

Breastfeeding
It was the Prophet Mohammed (P.B.U.H.) who wisely entrenched breastfeeding in the Islamic tradition:

"The mother shall give suck to their offspring for two complete years"
Surat II (Baqara) verse 233

"Had it not been for infants being breastfed...you would have been afflicted by severe torture"
Hadith Sharif

Breastmilk is the most ideal food for babies in their first year of life and continues to be very important in the second year of life. It contains a number of substances which protect the baby against infection. Feeding on breastmilk is a baby's best insurance for survival and well-being.

During the first four months of life breast feeding should be exclusive and by itself will provide all the nutritional requirements of the child.

Feeding bottles should never be used. Bottles serve as ideal reservoirs for microorganisms and transmit diseases readily to the infants who suck from them. Powdered milk is expensive, difficult to mix properly and dangerous if not mixed correctly.
Weaning Practises
"Weaning" means the introduction of simple foods to an infant's diet and the steady decreasing of breastmilk.

Among Afghan children poor weaning practices are a very common cause of malnutrition. Traditionally Afghan mothers do not begin weaning their children until more than 9 months of age and sometimes not until 1 or 2 years of age.

Breastmilk contains all the nutrients a baby needs up until 4 months of age. After 4 months a child needs additional food in his diet to remain healthy and develop properly.

Porridge, nan, curd, soup, mashed potatoes and bananas are examples of good weaning foods. As soon as the child is eating soft foods well Body-building foods such as eggs, legumes or meat should also be added to provide infants with the nutrients for proper growth and development.

Protective foods are also important in a baby's diet after 4 months. Yellow or orange fruits and vegetables and dark leafy green vegetables should be included daily with the child's meal.

Contaminated weaning foods give infants diarrhea. Weaning foods should be prepared and stored properly (refer to ??? Food Hygiene) and given with a clean cup and spoon.

Feeding Practises
Young children cannot eat large meals. It is necessary to feed children a variety of nutritious foods four to six times a day. By the age of one year a child can eat the same food as an adult but should continue breastfeeding up to the end of their second year. More food must be given as breast feeding is decreased and a child must be helped to eat so he does not have to compete with older children and adults for food from the family pot.

Body-building foods are important for growth and recovery from disease. A child with fever also burns Energy food rapidly to keep warm. When a child becomes sick his body uses more Body-building and Energy food to fight the illness. If food is withheld he will become malnourished and unable to recover. A sick child needs increased amounts of nutritious foods during illness and on until he has fully recovered.

2. REGULAR ASSESSMENT OF GROWTH

Infants from birth to 12 months of age are at the most vulnerable time of development outside the womb. This is the age range which experiences the highest death rate among
Afghans. This is also the time when weaning and feeding habits are established and therefore is the time when problems may start which may lead to malnutrition later in the second year of life. The first year of life is the time when preventative activities can have the greatest impact.

A healthy child follows a standard, increasing pattern of growth throughout childhood. Health workers are able to measure and record growth on "growth charts" which are available at BHUs or clinics. Ideally, all newborns should be weighed by a health worker at birth and then monthly up until the age of two.

MEASURING THE GROWTH OF A CHILD IS A SIMPLE WAY OF MEASURING THE HEALTH OF A CHILD

By recording the weight of a child on a growth chart at monthly intervals it is easy for a health worker to see when a child is not progressing normally. This allows early detection of health and nutritional problems and hence early action can be taken before serious problems arise.

All children from birth to two years of age should visit the BHU or clinic monthly (if available, Antenatal Clinics are best) for regular assessment. Growth charts should be kept safe by the family and brought to the clinic with the child.

3. IMMUNIZATION

When certain microbes enter the body and cause disease, the body produces "antibodies" to fight the illness. When the person recovers the antibodies remain in the body and thereafter protect the person from the disease.

Vaccines also cause the body to produce antibodies against certain diseases. The six important diseases which need to be controlled through immunization in children are:

- MEASLES
  These diseases disable and kill many children before they reach the age of five.
- TETANUS
- TUBERCULOSIS
- POLIO
- PERTUSSIS
- DIPHTHERIA

Proper immunization against these diseases in his first year will prevent a child from contracting and perhaps dying from them.
Some of the vaccines, like tetanus have to be given via the mother before a baby is borne. Some are necessary soon after birth, and some are not needed until later, like the measles vaccine. Because a child has antibodies from his mother protecting him for the first three months of life from certain diseases, he cannot get sick from them.

Vaccination can be done at the BHU or clinic or by mobile trained vaccination teams who are equipped with proper cool boxes to keep vaccines from spoiling. Vaccinations cards should be kept safely by the parents. They record the number and type of vaccines which have been given and have yet to be given. It is very important that the vaccination car is not lost and that all immunization is completed. Incomplete immunization of a child renders him defenceless against the disease.

Some diseases require more than one vaccination. Some vaccinations protect against more than one disease (eg. DPT protects against diptheria, pertussis and tetanus). Vaccination should take place at the following ages:

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>MINIMUM AGE FOR IMMUNIZATION</th>
<th>INTERVAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLIO 0</td>
<td>BIRTH</td>
<td></td>
</tr>
<tr>
<td>BCG</td>
<td>BIRTH or before age 1</td>
<td></td>
</tr>
<tr>
<td>POLIO 1/DPT 1</td>
<td>6 WEEKS (1.5 MONTHS)</td>
<td></td>
</tr>
<tr>
<td>POLIO 2/DPT 2</td>
<td>10 WEEKS (2.5 MONTHS)</td>
<td>1 MONTH BETWEEN DOSES</td>
</tr>
<tr>
<td>POLIO 3/DPT 3</td>
<td>14 WEEKS (3.5 MONTHS)</td>
<td></td>
</tr>
<tr>
<td>MEASLES</td>
<td>9 MONTHS</td>
<td></td>
</tr>
</tbody>
</table>

(Afghan Refugee Health Programme, Pakistan : Manual for EPI, CCAR/UNHCR/IRC, 1990)

4. PROTECTION FROM DISEASE

Proper nutrition, breastfeeding, growth monitoring and immunization are all important in preventing serious illnesses when exposed to disease. Young children are in a vulnerable stage of life. It should also be the responsibility of parents and care givers to protect young children from exposure to disease.
Disease is contracted from many sources. As we know, people, insects and animals carry disease and can transmit them to others. Disease can also come from infected things people touch or put in their mouths. There are a number of important precautions that should be taken to keep disease microorganisms from reaching small children:

* wash hands will before handling a small child or preparing food for him

* wash and cook a child's food thoroughly. Food should be given soon after preparation and not given if stored for long periods

* protect food from flies

* when feeding a child always use plates, cups and utensils that have been cleaned thoroughly in soap and water

* water given to children should always be boiled for ten minutes, cooled and stored in a clean covered container

* children should be kept away from those persons who are sick with orally contagious diseases

* young children should always sleep under bed nets

* the environment around the compound should be kept clean and latrines should be protected to prevent flies from gathering

8.4 CARE OF THE SICK CHILD

Children's bodies lack protection and stored nutrients and are less able to respond to harmful microorganisms. They become weaker and their condition deteriorates much faster than adults when they fall ill.

When infants becomes sick many do not rest well and may cry a lot. Others remain listless and unresponsive. When a child does not feed well it is a strong indication of health problems.

Fever may or may not develop in sick toddlers. If fever does develop a sick child will burn large amounts of energy to stay warm. He will lose large amounts of fluids from this skin and quickly become dehydrated. His body will also not be able to adequately maintain body heat and he will chill easily.
Care of a sick child involved five important factors:

**RATIONALE**

1. Control high fever
2. Replace lost fluids
   Prevent dehydration
3. Replace lost energy
   Prevent malnutrition
4. Prevent chilling
5. Determine proper treatment

**INTERVENTION**

1. SPONGE WITH COOL WATER AND DRY CAREFULLY
2. HELP THE CHILD TO SIT
   GIVE PLENTY OF FLUIDS
   USE A CUP AND SPOON
3. GIVE SOFT, NUTRITIOUS FOODS
   AT LEAST FIVE TIMES A DAY
   CONTINUE BREASTFEEDING
4. KEEP CHILD WARMLY WRAPPED
   IN A CLEAN, DRY SHEET
5. SEEK TRAINED MEDICAL HELP
   IMMEDIATELY

When a child gets sick, especially if he is very young, it is important that caregivers seek trained medical help without delay. Traditional healers do not have an adequate understanding of the disease process to be able to give sound medical treatment. Some treatments which they prescribe are beneficial to their patients but others are useless or even harmful. Sick children should be taken to see a doctor at the BHU or clinic.

Treatment recommended by the doctor must be followed carefully. If drugs are recommended the right amounts must be given as frequently and as long as prescribed. Just because a child begins to look normal doesn't mean the disease has left his body. If medicines are stopped too soon a child will fall ill again with the same, but more serious form of the illness.

**BASIC HEALTH MESSAGES FOR MATERNAL AND CHILD HEALTH**

1. A woman should visit the BHU or clinic to be checked by a trained medical person, at least twice during pregnancy.

2. Pregnant and breastfeeding mothers should eat enough nutritious food for two people.

3. All pregnant women should be delivered by a trained medical person.

4. Children should be taken to the BHU or clinic monthly to be weighed and checked by a trained medical person.
BASIC HEALTH MESSAGES FOR CARE OF THE SICK CHILD

1. Give plenty of fluids to sick children.

2. Give a sick child soft food at least 5 times a day.

3. Give a child recovering from an illness extra food, at least one extra meal a day for 1 to 2 weeks.
CHAPTER 9
WORKING WITH THE COMMUNITY:
COMMUNITY HEALTH COMMITTEES

OBJECTIVES:
By the end of Chapter 9 the learner will be able to:

1. Define a Community.
2. Explain the relationship between Health and the Community.
3. Explain the concept of Community Health Committees.
4. Describe the procedure of Selecting and Getting to Know a Community.
5. Explain how to Form and Work With Community Health Committees.
6. Describe the process of developing a Plan of Action.
7. Provide feedback on a group Health Committee Roleplaying exercise.

9.1 COMMUNITIES

Picture the community you come from. Who are the people in it? Where do they come from? Why are they part of your community? How do they interact? Who leads the community?

Now picture another community of undergraduate students at a university. And again, picture a community of the Koochi tribe. Three different types of communities with three different lifestyles... So, what makes these three groups communities?

All are made up of people who live in the same place and share a common objective: and sometimes, common origins.

PEOPLE LIVING TOGETHER WITH COMMON INTERESTS

College students come together as a group with the shared goal of increasing their level of knowledge and graduating in a particular field. Their shared objectives are achieved over a brief period and the community is short lived.

A tribe of Koochi share the objective of maintaining property, tradition and culture. They are linked economically, by communal ownership and by family ties which have been maintained for many years. Their commitment to

9-1
Chapter 9 Working with the Community: Community Health Committees

their community is therefore much greater and far more sustainable.

What interests do you share with members of your own community? How long have members of the community been working toward these objectives? Is the health of its members of concern to your community?

Consider an example: Recently your child began suffering from severe diarrhea.... You take him to the BHU and there you see many of your neighbours with their children, also suffering from the same symptoms. When you ask the doctor if he is seeing an unusually high number of children with severe diarrhea he replies that for this time of the year he is seeing three times more than normal. Is this a problem that needs to be looked at by the community as a whole? Why? and what can the community hope to achieve? How can the community organise itself to deal with Community Health Problems?

9.2 HEALTH AND THE COMMUNITY

Most infectious disease is spread within groups that maintain close contact. Disease in the Afghan population is most commonly spread within both the family and the community is usually a result of poor hygiene, unsafe water and an unclean environment.

Health and prosperity go hand in hand. Take an example of a community which suffers from a high degree of poor health. Many children in the community are infested with worms and suffer from frequent bouts of diarrhea. As a result they are malnourished and perpetually tired and unable to learn well at school. Men of the community become sick, cannot work and are unable to provide adequately for their families. When the strength and energy is removed from a community less is produced in the fields and available in the markets and a cycle of poverty and poor health is established. Many bright, young children who would play an important role in the future leadership of the community are prevented from doing so. Many do not survive beyond their fifth year.

Afghan Communities exist as a result of long-standing tradition, common origins and the common desire to maintain and further the community. This should therefore infer that the health of the community members is a priority concern to everybody in the community.

When garbage or faeces is not properly disposed of in one home in a community, flies are able to pick up and transmit disease to other homes regardless of how conscientious other householders are. Similarly, a household that does not
remove stagnant water pools in their compounds increases the risk of malaria to all persons living in the community. Within a community, the health habits of one person has an impact on many others.

But we have already seen that promoting healthy behaviour is challenged by people's resistance to change and their lack of awareness of how their behaviour affects their health and the health of others around them. One approach to improving health in the community is through the establishment of Community Health Committees.

9.3 COMMUNITY HEALTH COMMITTEES (CHCs)

Part of the job of a Community Health Educator involves teaching communities how to look after their own health problems through Community Health Committees. The task requires both educating about health and also assisting communities to put this knowledge into practise. In this role it is very important that the CHE never lose sight of the fact that CHCs are intended to be independent "self-help" groups and that for a self-help programme to be successful, the active participation and involvement of the community members is essential.

Community Health Committees receive support from CHEs but the most fundamental concept of them is that they will eventually become independent working groups able to take responsibility for health conditions in the community.

9.4 SELECTING A COMMUNITY

A community may be identified by a Community Health Educator as a suitable location for a CHC or the initiative may come from the community. In either case, a community must meet certain criteria:

1. The community must demonstrate interest in having a CHC in their community.

2. There must be a need for a CHC in the community.

3. There must be active involvement of all community members.

9.5 GETTING TO KNOW THE COMMUNITY

The most important first step when working with a community is to familiarise yourself with its members, with its history, with its physical surroundings and with services to
the area. It is important to treat each community as unique, with unique problems requiring individual solutions.

Begin your assessment of the community with the elders and respected members. They understand the community best and know its members. They must also favour and support the CHC for it to reach with any success.

These community leaders can introduce you to other leading figures. Meet with as many of the people who live in the community as possible. Introduce yourself and explain why you are in the community. Carefully explain the concept of CHCs without providing false expectations or making promises that you cannot deliver.

CHCs ARE DESIGNED TO BECOME FULLY AUTONOMOUS AND RESOURCES NECESSARY TO RUN CHCs MUST COME FROM WITHIN

If the CHE leads the CHC to believe he has anything to offered except support, information and motivation then he will be laying the groundwork for disappointment. Explain also that you are not coming with the answers to their health problems and that the solutions will have to evolve through cooperative group effort.

Assess the attitude of the people you meet toward health and the concept of preventative health care. Gauge their responsiveness to community participation for improved health conditions. Establish if the community leaders are willing to support a CHC programme.

9.6 FORMING HEALTH COMMITTEES

If the community that you have been assessing pledges support and active involvement in a CHC programme and is deemed otherwise suitable then the community should proceed to select CHC members under your guidance. Select members who:

1. are well established in the community

2. demonstrate enthusiasm for improving the health and welfare of the community

3. are accepted and respected by the majority of the people of the community

4. are able to devote sufficient time to BHTP and CHC support work
Chapter 9 Working with the Community: Community Health Committees

5. are open to new ideas, have the ability to learn, adapt and motivate others to do the same.

The number of members will vary according to the size of the community and the wishes of the people who make up that community. A working group of four to six members for a community of 300 families has been found to be an appropriate size.

Choose a suitable time and place to meet. Arrange to meet at least once a week for the first three months while you are delivering Basic Health Training.

9.7 WORKING WITH THE HEALTH COMMITTEE

Before proceeding to function as a working group the CHC members must be introduced to the principles of preventative health. Only after completing all sessions of the Basic Health Training Programme will the CHC be prepared to represent the health interests of the community.

When the CHC has reached the working phase they will be ready to apply the theory which you taught them in practical terms. They should be prepared to develop a Plan of Action.

9.8 PLAN OF ACTION

The CHC's Plan of Action is based on an assessment of the community's health conditions, its needs and its priorities. It is not an assessment based on the needs of the community as the health educator sees them but as the people of that community see them. The role of the CHE in planning strategy is to act as facilitator.

The health conditions which exist in communities have generally existed for many years. The health educator may find that the CHC will have difficulty identifying where long-standing problems exist or they may have difficulties formulating strategies to deal with the problems that they do identify.

In the Plan of Action the CHE and the CHC work through health problems from identification to strategy for resolution. The form that follows at the end of the chapter will be filled by the CHC as they enter the Working Phase.

9.9 ROLEPLAY

With a group try this role playing activity. Make it as life-like as possible, it can provide valuable experience in...
group problem solving and in the difficulties that working with CHCs can hold:

**ROLEPLAY: FORMING A COMMUNITY HEALTH COMMITTEE AND PREPARING A PLAN OF ACTION ACTIVITY FOR A GROUP OF 8 TO 10**

**Materials:**
1 Whiteboard
Boardmarkers
10 Role Cards (see 'Roles' below)

**Instructions**
This is a group exercise for 8 to 10 people. It is intended to simulate a situation where a community is experiencing "community health problems" and group action is important to solve these problems.

Working as a group can be challenging. All participants will have a unique view of the problems with differing opinions about possible solutions. Don't allow yourselves to get bogged down. Don't dwell on minor differences or insignificant details. When you reach an impasse continue on to another area of discussion and return to unresolved issues later. The CHE should coordinate the group without dominating discussions. He should not try to solve the community's problems but merely act as educator, motivator and advisor.

The group must write each "role" on a small piece of paper, fold them up, place them in a jar and then each member must pick a role from the jar.

Read the scenario and then organise yourselves into a three or four member health committee. Consider the theory that you have learned and solve community health problems by putting theory into practice.

**Scenario**
You are all members of an Afghan Community. The community has been established for many years but health has never been seen as a priority for community participation.

The people of the community take their water from the nearby stream where they also bathe and wash clothes. Latrines are uncommon in the village but flies and mosquitoes are. They breed in the faeces on the ground and in the swampy areas surrounding the village.

CONTINUED.....
For many years the people have become accustomed to illness and death from diarrhea, malaria, TB, measles and tetanus. The closest clinic is five miles away and most often the villagers prefer to go to a traditional healer in the community who, for a small fee, will give an injection to those who come to see him.

The Community Health Educator has just arrived at the village.

Roles
1 Community Health Educator
1 male, 5 years old (suffering from malaria)
1 female, 25 years old (pregnant and bottlefeeding)
1 male, 55 years old (malik)
1 female, 2 years old (suffering from diarrhea)
1 male, 25 years old (mason)
1 female, 40 years old (TBA)
1 male, 45 years old (mullah)
1 female, 60 years old (suspected TB)
1 male, 39 years old (chowkidor, gardener)

Tasks (45 minutes)
Together the group must:
1. Form a 3-4 member health committee
2. Play your roles in the assessment of the communities needs
3. Formulate a plan of action (use Whiteboard, markers, notebooks as required)

Evaluation
After you have spent 45 minutes completing the Tasks, turn to Roleplay - Evaluation and assess the groups performance.
ROLEPLAY: FORMING A HEALTH COMMITTEE AND PREPARING A PLAN OF ACTION (continued from page 9-6)

Evaluation
As a group, evaluate the performance of the Community Health Committee. Use the following guidelines:

Did the CHC pass on their basic health knowledge by health teaching in the community? (Example: Did the CHC explain the association of dirt and stagnant water to diarrhea and malaria to the community?)

Did the CHE act as facilitator or did he tell the CHC what needed to be done?

Did the CHE act as liaison between the CHC and appropriate authorities? (Example: Did the CHE contact medical authorities at the clinic regarding a vaccination programme? Did the CHE contact local authorities about a water supply programme?)

Did the community participate in improvement activities? (Example: What was the role of the mason? Did the gardener take a part in tree planting in areas where stagnant water was a problem? Were women involved in ORS production? Was the TBA asked to promote breastfeeding instead of bottle feeding?)

How is the community going to raise money to pay for improvements that cost money? (If there are any.)

What did you find helpful about this activity? How will it help your future work with Community Health Committees?
INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETIES

COMMUNITY HEALTH COMMITTEE PLAN OF ACTION

<table>
<thead>
<tr>
<th>CAMP/VILLAGE</th>
<th>LOCATION</th>
<th>CHE HEALTH COMMITTEE MEMBERS:</th>
<th>COMMUNITY LEADER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>NUMBER OF FAMILIES</th>
<th>NEAREST HEALTH CENTRE HEALTH CENTRE FACILITIES</th>
<th>OUTREACH PROGRAMMES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>CHWs (no.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>FHWs (no.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TBAs (no.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Malaria Control (Y/N)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vaccinators (Y/N)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TB Control (Y/N)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sanitation Programme</td>
</tr>
</tbody>
</table>
What skills are represented among the members of the community? List and give the number.
(example: Mason(3), Carpenter(1), Tailor(2), Baker(1))

(مثال) بنايانان (۳۰) خانه، (۲) خیاطه، (۱) نانویی.
Describe the various latrine facilities or lack thereof, in compounds and public areas. Give approximate percentages of each.

Describe the various forms of garbage disposal used by families or shopkeepers. Give approximate percentages of each.

Is there a garbage collection programme in the community?

Is electricity supplied to the community?

If yes, what percentage of families receive electricity?

What are the three most common causes of morbidity or mortality in children, women and men in the community?
## PLAN OF ACTION

<table>
<thead>
<tr>
<th>Health Problem</th>
<th>Related To</th>
<th>Time Frame</th>
<th>PLAN OF ACTION</th>
<th>FOLLOW UP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATE</th>
<th>LOCATION</th>
<th>CHE</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY


CCAR and UNHCR. (1990). Training Male Community Health Workers. Islamabad: UNHCR.


CCAR and UNHCR. (1989). Guidelines for Environmental Health Services for Afghan Refugees in Pakistan. Islamabad: UNHCR.


