unicef

یونیسف

United Nations Children's Fund

اقوام متحدہ ادارۂ اطفال

ISN 8228

BALOCHISTAN INTEGRATED AREA DEVELOPMENT (BIAD)

2ND DRAFT

CURRICULUM FOR

HEALTH AND HYGIENE EDUCATION

IN

SCHOOL SANITATION PROGRAMME

March 1991

INTRODUCTION

Health education is the translation of what is known about health in desireable individual and community behaviour pattern by means of education process. During the past few decades a number of health education models have been developed. These models were based on the view that health education is basically concerned with "telling people" what is good for them, what they should or should not do, how they can achieve a desired results and what consequences they should expect from certain actions. The underlying concept in this approach was that only a few people knew certain facts and that the majority of the population knew little or held the wrong views.

The international conference on primary health care organised jointly by UNICEF and WHO in Alma-Ata USSR in 1978 declared that "people have the right and duty to participate individually and collectively in the planning and implementation of their health care". The objective of WHO, and the UNICEF programme of public information and education for health is to encourage people to want to be healthy, to know how to stay healthy, to do what they can individually and collectively to maintain health and to seek help when needed.

In this context, UNICEF in Balochistan have initiated a project with LG&RDD on water and sanitation. UNICEF is providing Afridev handpumps for clean water and Pour Flush latrines for good sanitary conditions. In first phase this project will cover five districts i.e. Zhob, Loralai, Killa Saifullah, Nushki and Kharan. Later on it will be expanded to other districts of Balochistan.

UNICEF also arranged the five workshops on Health and Hygiene in these districts, so that an integrated approach in water and sanitation could be adopted. It is clear that it is very difficult process to change the habits of the community because in this tribal society, people have got different beliefs and strong socio-cultural set up. But throgh these workshops it was tried to reduce these resistances, and through feedback it was concluded that community need this change, if they are properly educated.

Health is not something that is given, but is generated within the individual by one's own efforts. Despite the government's efforts to improve services to Pakistan's rural communities, the country's basic health indicators are still poor. Even today, only one-third of rural population has access to adequate water supplies and less than fifth has any sanitation facilities or hygiene excreta disposal.

This lack of water and sanitation including health and hygiene education is one of the basic reason why infant and young child mortality rates are still high at 160 per 1000. Diarrhoea is estimated to account for 45 per cent of all child death, the largest single cause of infant mortality in Pakistan. Improvements in water supply, sanitation including health and hygiene education would not only reduce the number of child deaths but also give a much needed boost to the quality of rural life supported by community action.

The challenge therefore, for us lies in developing effective health education programmes in different cultural, educational, socio-economic setting in Pakistan, that will inculcate self care and self reliance at the individual and collective level. The importance of school child health care in Pakistan is not clear even at the top and also at gross root level. In our setup, education department does not concentrate over the child health care from where the clean and dirty habits are developed.

SCHOOL HEALTH IN PAKISTAN

After the preschool period, a child enters primary education at the age of about four years and in doing so he or she joins a group of school children of his own age and identifies himself with fellows of his group. He knows his position at this period in a competitive way. While moving with his fellow friends he learns for himself to what extent he can compete with them in his lessons, in other activities and sports etc. Activities of this sort do subject him to certain hazards like accidents and disease. His association with other children in his group does play a part in producing factors which might cause him injuries, or expose him to the risk of infection.

Moreover, his close movement with other members of the community in the school both while sitting in the school and in acts like talking, language etc., increase the chances of communicable diseases. It is clear therefore, that while he is in the school he needs an environment which can ensure him a comfortable seating arrangement, safe water supply, protection from accidents, adequate sanitary facilities and sufficient opportunities for his physical

education. Apart from these he needs a knowledge in health education which relates to healthy living and his own responsibilities in matters pertaining to health, so that when he goes up and has his own family he contribute this knowledge in bringing of these principles in his own family. This evidently can be effectively carried out only through organised community efforts by having school health service.

The school health service in Pakistan may be said to be of recent origin and is still in the process of development. Majority of the schools yet remained uncovered by an organised school service. There are however, some places where good school health service programmes have been started to function.

In Pakistan UNICEF has supported the opening of whole time school clinics at Karachi and in the provinces. A suitable answer to having a satisfactory cover for all the schools including schools in the rural areas is to be had in training of teachers in first aid, control of preventable disease, personal hygiene, clean water, good and bad sanitary conditions, nutrition of children, school health etc.

As UNICEF is working for survival, protection and development of the child, so in Balochistan it has started a project of School Sanitation Programme covering 7 districts of Balochistan by providing clean water, Pour Flush latrines and also arranged 4 days training for teachers on child health care and hygiene education. These school teachers in the second step will transfer this knowledge to the school children and to the community by taking

regular class in a week and will also arrange different competitive programmes relating health and hygiene.

List of Districts Where Programme has to be Started:

1. Sibi
2. Lasbela
3. Kachhi
4. Panjgoor
5. Pishin
6. Zhob
7. Khuzdar

Time February-June 1991

The programme of training will be started in January, parallel with the installation of latrines, and provision of clean water upto June 1991. The topics which would be covered during workshops are as follows:

SESSION - I

Messages from DG of WHO and UNICEF

- Discussion on Healthy and unhealthy behaviours in Water and Sanitation
- Personal hygiene and how it can be kept among the children

- Definition of clean water, its importance and review of knowledge about diseases which can be attributed by contaminated water
- Prevention of communicable diseases like Malaria, Typhoid, Dysentry, Cholera etc.
- Importance of immunization and how it could be made successful
- Discussion on importance of Nutrition in children
- Importance of Dental health
- Participatory approaches in health and hygiene at community and school level
- Review the knowledge about excreta based diseases and advantages of latrine and garbage disposal
- Ways and means of communication at child level (drams, role play etc)
- Exercise on role play, drama etc.
- Briefing about Afridev handpump and twin indirect pit pour flush latrine (design, proper usage and maintenance)
- Discussion on the use of health and hygiene education material including messages, posters, charts and its distribution
- Discussion on Diarrhoea and its prevention followed by Video presentation
- Video film on water and sanitation prepared by UNICEF followed by discussion
- First Aid
- Briefing about Facts for Life
- Evaluation of the particiipants

LESSON PLANS

In the health and hygiene the topics mentioned above will be discussed with the preparation of handouts, lecture notes etc. The details of each topic would be as follows:

1) Message of D.G of WHO and UNICEF

World health will improve only if the people themselves become involved in planning, implementation, and having a say about their own health and health care but involvement will not just happen.

How serious are we about involving individuals, families and communities ? Are we prepared mentally, professionally to listen to thier concerns, to learn from them, what they feel is important, to share with them appropriate information to encourage and support them ? Are we ready to assist them in choosing from alternative sections, in setting their own targets and evaluating their efforts ?

In many cases, so far the answer is NO we can go on and developing plans, nothing will happen unless all health workers, all health managers and key professionals in other sectors come to realise what is at stake.

To overcome these particular stumbling blocks, I see three major requirements.

First, health worker must understand that the concept of primary health care involves new roles for them, and a new outlook. Not only should we be concerned with disease prevention and control, we must also be concerned with health promotion and care. And not least with development in general, and with people. Our health technologies must be based on what the people themselves want and need. In other words, health worker should learn first and foremost to act as "facilitator", of action by individuals, families and communities. We must stop trying to fit communities in to systems and programmes that we devise without a real and deep feeling for the social aspects of health problems or the economic contstraints - not to speak of the cultural dissonance that is often the backlash of such programmes.

Second, health workers must accept their new roles. More yet, they must be keen to try them out, to adapt them, to broaden their scope and inovate in the partnerships approach. Their main concern must be to find ways of helping individuals and communities become self-reliant. It must be made clear that advocating self reliance in health matters is no way means abdicating our responsibilities and passing them on to others. Both lay persons and professionals are essential, they cannot replace each other, but they must work together.

This brings me to my third point: health workers must have the necessary skills to perform these new roles effectively and to make efficient use of existing knowledge. This calls for a training force fully familiar

with accumulated experience and keen to provide the kind and quality of professional preparations needed. It also calls for full backing from health managers for such training.

Message from UNICEF

The UNICEF mandate is, in essence, the same as when it was originally given; to help protect the lives of children and promote their development. The greater their vulnerability the higher the priority. At the very first session of the United Nation General Assembly a unanimous decision, on 11th December, 1946, created UNICEF - then called United Nations International Children's Emergency Fund. But in October 1953 General Assembly decided that UNICEF should continue the work as a permanent arm of the United Nations system. It would called the United Nations Children's Fund, but retain the wellknown UNICEF acronym.

UNICEF want to deliver following ten messages distilled from Facts for Life:

1) The health of both women and children can be significantly improved by spacing births at least two years apart, by avoiding pregnancies before the age of 18, and by limiting the total number of pregnancies to four;

2) To reduce the dangers of child bearing, all pregnant women should go to a health worker for pre-natal care and all births should be assisted by a trained person;

3) For the first few months of a baby's life, breast milk alone is the best possible food and drink. Infants need other foods, in addition to breast milk, when they are four to six months old;

4) Children under three have special feeding, needs. They need to eat five or six times a day and their food should be specially enriched by adding mashed vegetables and small amounts of fats or oils;

5) Diarrhoea can kill by draining too much liquid from a child's body. So the liquid lost each time the child passes a watery stool must be replaced by giving the child plenty of the right liquids to drink - breast milk, diluted gruel, soup, or a special drink called ORS. If the illness is more serious than usual, the child needs help from a health worker - and the special ORS drink. A child with diarrhoea also needs food to make a good recovery;

6) Immunization protects against several diseases which can cause poor growth, disability, and death. All immunizations should be completed in the first five years of the child's life. Every women of child bearing age should be immunized against Tetanus;

7) Most coughs and colds will get better on their own. But if a child with a cough is breathing much more rapidly than normal, then the child is seriously ill and it is essential to go to a health centre quickly. A child with a cough or cold should be helped to eat and to drink plenty of liquids;

8) Many illnesses are caused because germs enter the mouth. This can be prevented by using latrines, by washing hands with soap and water after using the latrine and before handling the food, by keeping food and water clean and by boiling drinking water if it is not from a safe piped supply;

9) Ilnesses hold back a child's growth. After an illness a child needs an extra meals every day for a week to make up the growth lost;

10) From birth to age three, children should be weighed every month. If there is no gain in weight for two months, something is wrong.

SESSION — II

Discussion on Healthy and Unhealthy Behaviours in Water and Sanitation:

In this session healthy and unhealthy behaviour of the people will be discussed in a participatory manner and the knowledge will be shared with following outlines.

People stay healthy or become ill, often as a result of their own action or behaviour. Here are some examples of how people's actions can keep them healthy;

1. Washing hands and plates with soap and clean water kills some of the bacteria that cause disease;
2. Proper cooking the food;
3. Using mosquito nets and insect sprays helps to keep disease carrying mosquitos away;
4. Putting kerosene bottles out of the reach of small children drinking from them and poisoning themselves;
5. Carefully guarding cooking fixes from children reduces the risk of burns;
6. Not defecating outside keep the children healthy.

In health education it is very important to able to identify the practices that cuase, cure, or prevent a problem. Let us look at a common health problem and see what kinds of behaviour are involved.

Diarrhoea is a common symptom of many diseases that are often the result of poor sanitation. It is a serious problem, especially in young children. Here are some of the practices than can cause diarrhoea;

1. Feeding children with feeding bottles, as these are often difficult to keep clean;
2. Drinking river, stream, karez, or pond water without purifying it;
3. Not washing hands before eating;
4. Not washing plates, cups, and spoons, or washing them with plain water only;
5. Defecating every where on the open ground. Infected faeces may contaminate objects that small children pick up and put in their mouths;
6. Leaving refuse in the open, so flies can breed on it;
7. Leaving food uncovered, so that flies can contaminate it;
8. Eating raw fruits and vegetables without washing them;
9. Cooking food only partly, so that no all germs are killed;
10. Using left-over food that has not been thoroughly reheated or that has spoiled.

Think of other health problems what kind of behaviour can cause you to get a splinter in your foot ? What kind of behaviour can prevent this ? What kind of behevour help spread seabies ? What kind of prevent it ? What kind of behaviours especially found in school children to get them sick ? How it can be prevented ?

A discussion will be made with the teachers so that they can mention the different kinds of behaviours of the school children and how they can prevent it ?

SESSION — III

Personal Hygiene and How it can be kept among the Children ?

The second session will comprise over personal hygiene of the school children and how it can be kept among the children. There will be a discussion also and a concrete knowledge over the personal hygiene and its benefits would be provided. Personal hygiene is defined as the branch of health which concerns the individuals' adjustment to the physiological needs of the body and mind for the attainment of the maximum level of health. The personal hygiene of the school children depends on the following factors:

1) Habits
2) Heridity
3) Temprament
4) Clothing
5) Cleanliness

1) HABIT:

Habit plays an important part in the preservation of health. In the childhood, it is readily formed, grows by practice, and eventually becomes a part and parcel of nature, making its eradication a matter of great difficulty.

It is for this reason that habbit is called second nature. The influence of habit in the formation of the character of individuals is known to all, but its influence on the physical and mental condition of men, particularly of children, can not be over estimated. Indeed it is productive of good and abortive of evil. This subject may be discussed under the following heads, which are more or less influenced by habit.

i) Eating and Drinking:

A regular habit of eating and drinking, which starts from the childhood is essential for preservation of health. Usually in children food is not properly masticated which leads to illness. Sometime the children overload their stomach or they eat their food very fast which causes some diseases. The following points should be carefully taught to the children:

- Always wait for the apetite
- Masticate well
- Do not hastily swallow a mouthful, but let it be swallowed as it were by itself
- Avoid the children to read during meals
- Wash the hands properly before eating

This is particularly noticeable with regard to the two most important functions of animal life.

- Eating
- Sleeping

Long ago Hippocrates declare in one of his aphorisms "The old stand fasting much better than those of middle age, and those of middle age much better than the young. Children are very easily burst by lack of food". This is the key note of eating among the old. They need less food than in earlier years, and if they insist on eating as much as formerly they suffer for it. It is easy to understand the reason for it. They are not nearly as active as in middle life, and the heat processes within their baody care much slower. Moderation in eating is of great importance for the old.

ii) Sleep

Sleep is really a rest of brain but the spinal cord and the autonomic nervous system never sleep. In children it again depend on the formation of habits. Eight hour sleep at one stretch should be taken by most people in the tropies. In the plains during the height of summer when the nights are sultry, it is difficult to obtain proper rest even under a fan. Late hours should be avoided.

Infants sleep the greater part of the day, and duration decreases as age advances. Adults requiring about six hour sleep. The most important factor for retention of health in children and adults in age is sleep. The disadvantage of having sleep for long time in children is to get sick because hearts have to pump the blood against the force of gravity.

iii) Care of the Bowels:

In children the habbit of evacuating the bowels every day at the same time should be cultivated and failure to do this will result in chronic constipation. The most convenient hour is the morning before starting the days work.

Constipation really is an evil of modern civilization. Especially in children sedentary habits and want of proper exercise lead to weakening of both intestinal and abdominal mussels resulting in stasis, of the intestinal contents. Modern food contains less indigestible material to form the necessary "ballast" which mechanically stimulates the paristalsis.

iv) Cleanliness:

As a muslim we believe that "cleanliness is half of our Iman" (Alhadis). The most important conditions of healthful growth and development is cleanliness. Cleanliness with regard to the food we eat, the air we breath, and the water we drink, is essential for good health. In Indo-Pak cleansing of the skin is of immense value in as much as the amount of prespiration and excretion of solids are considerable. In fact much of the work of the kidneys and lungs is performed by the skin in hot countires. The sweat glands which open on the surface of the skin help to relieve the body of a portion of the effect material. The sebacous gland secrets an oily substance which acts as a natural pomade. If they are blocked by dirt, not

only is their action interfered with an extra work on the lungs and kidneys but they form favourable sites for disease production in the skin. It is therefore important to see that the orifices of these glands are kept clean.

As the children in rural areas oftenly play in dust, and there is concept of taking bath for a long time in their homes. So they must be educated properly so dnager of disease could be prevented.

2) Heridity:

The three factors, namely environment, response and heritage acting together which determine the character of the individual. It may be said that the individual is the resultant of these three factors, and any one factor may modify it. This heridity plays a vital role in the development of a child because if the parents, and the environment of the house is dirty then it is very difficult to remove the dirty habbits of the children.

The Care of the Infant:

The greatest care must be taken to avoid chilling and rough handling immediately after the birth the infant should be wrapped up warmly as soon as practicable.

Water bottles must be covered and never allowed to come in direct contact with the infant. Clothing should be warm and should allow movement. it should be easily changeable, washable and non-irritating.

Contact:

The number of persons in contact with the newborn baby should be reduced to a minimum. Kissing, coughing and sneezing over the infant are particularly objectionable.

Mental Hygiene:

Mental hygiene deals with ways and means of preserving integrity of human mind to obtain personal and environment enrichment of life. This mental hygiene is basically the duty of parents to produce within the child before school age and then this liability comes over the school to provide this mental hygiene.

Physical Aspects of the Child's Personal Hygiene:

1. Housing and Schools:

A good house and a school should not have wet subsoil, damp walls, rotten floors, defective drains, low ceiling and small windows. It should have provision for wholesome water supply and proper sanitary services. In school, sanitation teachers also have to take liability of, how to use a latrine ? How it can be kept clean ? What are the benefits ? How they can kept away from the excreta based diseases ?

Food:

In children, it is found that they usually take their food in hurry. They do not masticate the food properly which leads to indigestion and cause diarrhoea and other stomach problems. The children should be advised to take properly prepared and cooked food and masticate it properly. Both sides of teeth should be equally used to avoid disuse atrophy of one side, slowly eaten, overloading should be avoided, study during meals must be avoided. Pleasant society at meal times is advantageous. Drinking with meals, the bite and sip, is to be advised against as it dilutes the gastric secretions and thus shows the enzyme action. Rest before and after meals, due to diversion of blood to the digestive tract from the mussels in case of mascular work is highly desirable. Bathing at temperature other than that of the body also diverts blood from the digestive organs, it is therefore adviseable to indulge in a bath for an hour after eating. Probably the greatest obstacle to reform in personal hygiene is encountered in the disinclination to be shaken out of the groove of habit. It is easier to exist in laziness than to live in activity. In the children they usually fill their bowel enough with meals, which produces laziness. So the children are advised that they should not overburden their bowels.

Clothing:

Especially for school children, the teachers should be very strict with the uniform. They have to also keep an eye over the cleanliness of the

clothes. The clothing should have the following qualities:

1) Porous:

Knitted or woven, the former better in both winter and summer because it retains air in its pores and this being bad conductor of heat insulates the body against excessive heat and cold.

2) Non Conductor of Heat

Colour: White or light blue are good colours for summer while darker colours absorbs heat and are preferable for winter.

3) Loose:

Because tight clothing hinder body movements;

- Clothes should provide equal distribution of warmth and weight;
- Clothes should allow sunlight and fresh air penetration in moderation as this would be stimulating.

- It should permit evaporation of sweat from the body and thus not hinder cooling mechanisation;
- Non-irritant
- Smooth and soft

In schools, there must be weekly checkup of the uniform keeping in view the cleanliness and other qualities.

Bathing:

Cleansing of the skin is of immense value because there is considerable excretion of waste, products, through prespiration. It is important therefore to see that the orifices of sweat glands are kept clean. Skin cleanliness is also important for temperature regulation.

Oral Hygiene:

Following recommendations are made for oral hygiene:

- Proper dental care, oral hygiene and proper diet for the expectant mothers
- Breast feeding for infants
- Avoidance of thumbs sucking in children and mouth breathing both of which tend to narrow the dental arch and deform the fans
- Daily use of such fiborous food as meat, apples, raw cabbage and carrots

Care of the Hands:

If we see, that in human and children, the vital organ which remains in functioning are the hands and also other part of the body comes so frequently in contact with infective organisms. So there is obvious reason for washing hands after going to toilet, before eating or handling food, or whenever they become dirty. Clean skin has considerable self disinfecting power. A dirty skin harbours bacteria.

Again this washing hands, we can co-relate it with habits and these habits are developed from childhood. If in schools the teachers guide the children, and produces the habits of washing hands, then it will stay with their whole lives.

Nails:

As the nails grows outward, it should be filed in order to keep its length such that it does not interfere with usefulness of the fingers or harbour bacteria, protozoa, cysts. In schools it has been observed that some children has the habit of nail biting, which is very unhealthy practice. So teachers should pay attention toward such children. There must be weekly or fortnightly checkup of the children and should be advised in a good manner.

Care of Face:

The thorough cleaning of the face at night to remove the accumulation of dirt from the days exposure is the first requirement in its care. Warm water and a pure soap free from alkali are the best cleansing agent. In the schools the teachers should pay attnetion to the cleanliness of face, because sometimes the mothers do not care, in rural areas.

Eyes:

Periodic eye examinations are particularly indicated before the age of twenty and after the age of forty. In schools the teachers must observe the children, while reading, because it has been observed that children keep the objects of reading very close to eyes which leads to weakening of the eyes.

For comfortable reading the reader should be seated and the print should be held below the level of the eyes and 16-18" away from eyes.

The use of eye drops is unnecessary and undesirable unless the normal tearflow is disturbed or unless definite indications for treatment are found by an opthamologist.

Ears:

The teachers should cehck the ears of the children. it is adviseable to use ear plugs when swimming. Foreign objects should never be introduced because of the danger of injuring the ear-drum.

Nose:

It is not only a sense organ for smell but is also an airconditioner and airfilter. Nasal hygiene should be made a part of the daily toilet as in tooth cleansing. Nose washing with water every evening and morning and after any specially dusty episode would be useful like games. School teachers should advise carefully to those children with running nose by keeping in view the psychology of the child.

Feet:

The shoes should be of height shape, the foot will easily adapt itself to right shape with time. In rural areas, it has been observed that the children do not pay attention to the shoes and oftenly they move bare footed which leads to different diseases like worm infections etc. So in schools the teachers should teach the children about advantages and disadvantages of the shoes.

Exercise:

Exercise is essential for the different organs of he body, to work easily and effectively. Exercise should be taken in open air, must systematic and regular. Exercise should not follow immediately after or before meals, the body after excercise should be covered and protected form undue loss of heat.

So in schools there must be a period for exercise in form of games so that they could remain active.

SESSION — IV

DEFINITION OF CLEAN WATER, ITS IMPORTANCE AND REVIEW OF KNOWLEDGE ABOUT DISEASES WHICH CAN BE ATTRIBUTED BY CONTAMINATED WATER

This session will also be conducted in participatory manner first of the ideas from the participant would be collected and then knowledge related to session would be transfered.

CLEAN WATER:

1. It should not have any colour.
2. It should not have any smell.
3. It should not have any taste.

These are the three qualities required for the clean water.

Water for civilizations has been considered the source of life. But today we have to face the fact that more people are unserved them in the previous decade. There are still not less than 50% people in developing countries with no reasonable access to safe water. Such a situation result in heavy burden of water related diseases, the heaviest being water related diseases.

ROLE OF WATER IN ENVIRONMENTAL RELATIONS OF MAN.

As it is clear that three quarter of globe is couvered by water. These are about 330 million cubic miles of it. Every second, the sun's heat evaporates 16 million tons which reach the atmosphere. From these vapour's are condensed to be returned to earth in the form of rain, hail, dew, and snow.

Ninty seven (97%) percent of worlds water is saltish mostly Oceans by seas. Two percent exists as ice in Antractics. Remaining one percent is fresh water in tanks, ponds, springs, rivers, and underground natural reservoirs.

Life can't exist on earth without fresh water. Although water is one of the most abundant commodities the distribution of fresh water is uneven and more than half of the wrolds surface is arid. Shortage of fresh water is becoming increasingly apparent throughout the world. Insufficient supplies are a hindrance to the development of several younger Nations and also a bar to the progress in parts of the developed industrialised countries. e.g. in heavily populated and industrialised areas, water supplies are being consumed faster than they can be naturally replenished and water tables are sinking.

There are three main reasons for shortage of fresh water.

1. Population expanding rapidly.
2. Consumption of water in industries.
3. Irrigation projects drawing off huge water

(Production of one ton steel requires 65000 gallons. One ton of aluminum 120,000 gallons. Synthetic rubber up to 600000 gallons)

The WHo standard for requireing daily water is 45 gallon per capita per day. (30 gallons per capita per day is also acceptable)

SOURCES OF WATER

1. Rain water
2. Surface water like streams, karezes etc.
3. Underground water.

The rain water becomes impure as it passes through the atmosphere. It picks up suspended inpurities from the atmosphere such as dust root, and micro-organisms and gases like Carbon dioxide, Nitrogen, Oxygen, and ammonia.

WATER RELATED DISEASES.

All water related diseases are transmitted by one or more of four methods:.

1. Water borne transmission.

   Transmission occurs when the organision is contaned in waer which devrk or used in food like cholera.

2. Water Scarce Transmission

   Transmission from person to person in the domestic environment which might be reduced if more water was available and if it was used to imrpove personal and domestic cleanliness e.g. Scabies.

3. Water Based Transmission

   Transmission of a organism which needs a water intermediater host or hosts to maintain its life cycle e.g. guinea worm.

4. Water Related Insect Vector

Transmission by insects which braced in water of which live and bite near water e.g. malaria

Sources of Water Pollution

1) Sewage which contains pathogens

2) Industrial wastes containing toxic agents ranging from metal salts to complex synthetic organic chemicals

3) Agricultural pollutions which comprise of fertilizer and pesticides

4) Physical pollutions viz-heat (thermal pollution) and radiocative substances

5) Open wells

All water related infections may be transmitted by the water borne mechanism may also be transmitted by the water scarce or water wasted mechanism. Water related diseases can be divided in following cases:

Cases	Examples	Preventive Measures
1) Water carried	Germs in water cause diseases such as - Cholera - Typhoid - Paratyphoid - Hepatitis A - Viral Hepatitis - Dysentry - Gastro-entritis	- Improve water quality - Use of a different source - Use of latrines - Health education
2) Water scarce	Dependent on personal and domestic hygiene - Diarrhoea - Scabies - Leprosy - Pin worm - Protozoal : Amedsianis - Giardianis - Round worm infection	- Increase quantity of water - Use of latrines - Health and hygiene education

	- Skin infections	
	- Eye infections like Trachoma	
	- Hydatid diseas	
	- Snail: Sehistosmiasis	
	- Guinea worm infection	
3) Water Based	- Bilharsiasis	Improve the quality of water
	- Liver fluke	
	- Lung fluke	
4) Water Related	- Malaria	Drain Ponds, use sprays
	- Encephalitis	

Notice: That control of most of these diseases latrines and health education is needed.

Germicides:

The gemicides which have found successful for purification of drinking water are;

1) Potassium Permeganate: was greatly used in the past particularly during epidemics of cholera for disinfecting wells and tanks.

Chlorine being a superior disinfectant has however replaced the use of this chemical.

2) Lime or Quicklime: is used in the treatment of polluted water. It has the advantage of being cheap and easily available. Lime removes temporary hardness. To clarify muddy water, lime mixed with iron sulphate is used.

3) Copper Sulphate: is useful for removing algae from tanks. It is used in the proportion of 0.1 to 0.25 part per million of water. It is used in linen bags attached to ropes which are drawn through water. It has no effect on cholera, typhoid or dysentry organisms.

Chlorine: is one form or another is used wisely to sterlize water. Its efficacy in preventing known water borne diseases is undoubted when intelligently used. To be effective water should be clear.

Ultraviolet Rays: It is also used for clear water but it is expensive. The school teachers should advise the children or other members of the community, that if the clear water is creating problems, then it should be boiled before drinking.

SESSION — V

Prevention of Communicable Diseases like Malaria, Typhoid, Dysentry, Cholera, etc.

This session would also be conducted in participatory manner. If we see the communicable diseases there is a long list but in this session we shall concentrate especially over those diseases which are specially related to water and sanitation based. Following five diseases would be considered including its preventive measures:

- Malaria
- Cholera
- Typhoid
- Bacillary Dysentry
- Trachoma

First of all the knowledge about these diseases from the participants would be collected and then through discussion knowledge, preventive measure about these diseases would be transferred so that the teachers could provide a concrete knowledge to the higher school children and the community.

Definition of Communicable Disease

Diseases tending to spread from person to person either directly or indirectly (i.e. through intermediate host, vectors, water, food etc) are

termed as communicable diseases. It has been observed that the prevalence of communicable diseases compared to the previous decades has shifted gradually and present trend is towards an increasing prevalence in non-communicable diseases like accidents, diseases due to atmospheric pollution, cancer, cardiovescular diseases. Neverthless the incidence of communicable diseases remains significant, inspite of the reduced mortality due to these diseases. It is due to this consideration that Pakistan has, with the assistance of WHO, undertaken a major step of organising the EPI programme.

First of all we will discuss a disease which is carried by insects i.e. Malaria.

Malaria:

Malaria is a disease which is caused by a closely related group of four different species of plasmodinm i.e. P.vivax, P. falciparum, P.ovale, P. malariae.

History:

Malaria is very ancient disease which has adversely effected the progress of the nations and has been a decisive factor in many wars. The association of this disease with swampy and marshy areas led people to postulate that malaria was caused by bad air of swamps hence it was derived from a Latin word that is Mala meam had aria mean air.

A french surgeon named Laveran described in Algeria for the first time the parasite in fresh human blood in 1880.

Significance and Importance of Malaria:

Malaria has been responsible for a high morbidity directly or indirectly. It makes the patient invalid and weak and such patients die from other causes, thus shortening the life expectancy. Malaria kills about one per cent but it is a major cause of infant mortality where it is endemic. It lowers the general efficiency of man and retards human progress.

Malaria Season: Malaria is a seasonal disease and the higher incidence is from July to November with its peak in September and October in Pakistan.

Prevention and Control: There are two types of methods by which we can control malaria.

1) Defensive method

   a) Protection against the bites of mosquitoes
   b) Weekly administration of anti-malaria drugs (supperessive treatment)

2) Offensive methods

a) Destruction of mosquitoes in larval and adult stages

b) Reduction of the density of mosquito eliminating breeding

c) Destruction of malaria parasite in human host by the use of drugs for treatment

Now we will duscuss in detail.

Protection against the bites of Mosquitoes:

1) Use of mosquito nets: It is very essential for those living in malarious localities. It should be hung properly and tucked under the mattress and should be of proper mesh. Mosquito net has the added advantages that it keeps the other insects as well. Citronella cream applied to hands and feet deters the insect from biting.

2) Screening of the Houses: Screening of doors and windows not only prevents the entrance of mosquitoes in the houses but they also word of other insects as well. It is however, an expensive measure and it is within the reach of only well to do people. With the introduction of residual insecticides its importance is reduced.

3) Repplents: These are the substances which ward off the mosquitoes on account of their odour and thus prevent the mosquito from biting. An

ideal replent should be non-irritant, non-toxic, stainless and harmless to individuals and its effects should last for at least 12 hours. The effect of citronilla oil lasts for 20 min. The best repellent is a mixture of dimethyl-phthlalate indalone and Rutegars 612 in the proportion of 6-2-2. Citronilla creams and oils are available in the market are fairly satisfactory. Mosquito coils are useful for the bed rooms.

Offensive Methods

Destruction of mosquitoes in the Larval and Adult stage

1) Destruction of Larval:

In rural areas it has been observed that due to non availability of drainage system, the marshes and swamps develops near the houses. Especially in the rainy season it becomes big. This is the best location for the mosquitoes to breed. So it is advised that the mosquitoes should be eradicated by spraying larvicides, so that these could be killed in the breeding stages. Most commonly used larvicides are oils, parisgreen, BHC etc. Whichever larvicide is used it should be repeated regularly once a week, as the life cycle of the mosquito from egg to adult can be completed within about one week. The oils will be larvicide by producing a film and thus suffocating them.

2) Destruction of Adult Mosquitoes

Pyrethrum is the main insecticide used for space sprays. It is a contact poison which paralyses the nervous system of insects.

Residual Insectidal Spray

The use of chlorinated hydrocarbons and other insecticides have completely revolutionized the control measures against malaria. These are toxic to human beings and domestic animals, therefore they should be applied with adequate precautions. The residual insecticides are commonly DPT, BHC and Dieldren.

DDT: Dichlor, Diphenyl, trichlorethane

BHC: Benzene Hexa Chloride

Dieldrin: Chlorinated Hydrocarbon

Treatment

Treatment of malaria is by administration of antimalaria drugs. These are chloroquines, one tab, three times a day, for five days. In severe cases it may be administered by intramucular route, or I.V. route. For prophylactic purposes Daraprim tablets are used once a week, other medicines used in Malaria are Metacalphin, Fensidar etc.

Cholera

This disease arise especially from unsanitary environemtn and through contaminated water. So it would be discussed. Cholera is an acute infections, epidemic disease of the alimentary canal caused by an endotoxin formed by vibrio cholerae and characterized by profuse purging and vomitting of colourless, copious, and watery serous material (rice watery), muscular cramps, suppression of urine, algidity and collapse subnormal temperature. The mortality in the case of cholera is 20-80%. The symptoms are due to fluid loss, which may be so rapid as to cause death by dehydration and electrolyto imbalance, within a matter of hours.

The reservoir of infection is always a human being, a patient suffering from the disease, and passing vibro cholera in rice water stools and vomit. The vibro is comma shaped, motile non capsulated, non sporing, gram negative organisms.

Survival of the Vibrio:

Vibro cholera can survive in sewage polluted water, milk and other foods. They can survive in water for 16 days. Milk provides a suitable medium for its growth and multiplication and epidemics have been traced to milk infection when it is adulterated with infected water. Food when expose to flies may be contaminated with the vibrio. Flies fed on cholera infected food can remain infective for two weeks. High humidity favours transmission, but the organisms are easily killed by drying or heating.

Incubation Period

The incubation period is few hours to five days and rarely longer than five days.

Communicability and Transmission

Man is the main source of spread of cholera, which follows the line of communication viz, road or slip, sale and trade routes. Once the disease is introduced into a new community, explosive outbreak is the result. The route of entry of the vibrio is the mouth and transmission is by flies, food, fingers, faeces and fomites.

Susceptible Persons:

Persons in the community with poor sanitary conditions are the usual victoms. No-age is exempt, although it has been noticed that children are the usual victoms. Clinical disease has occured infants as old as 6 weeks. In the recent non vibrio type of cholera due to E-coli, July 1980, children were the worst sufferers in Ranchore lines Karachi with high fatality rate.

Treatment:

The treatment of cholera consists in correcting the basic abnormalities without delay, restoring the circulating blood volume and blood

electrolytes to normal level maintaining them there. The volume of fluid lost the vomits is included in the total given. Any deficit must be corrected with I.V. fluid. The use of oral solution has reduced the requirements for I.V. fluid by 70% to 80%. Since the solutions need not to be sterile or pyrogen free, the logistical problems are greatly simplified and the costs drastically reduced.

Antibiotics:

Oral tetracycline shortens the period or diarrhoea from approximately 05 to 10 days to 01-03 days when given in a dose of 500 mg every 6 hours to adults and 12.5 mg/kg body for children on the same schedule for 48 hours.

Medical Aseptic Protective Care:

Transmission from patient to patient or attendant by direct contact occurs very rarely if even provided normal cleanliness is practical hand washing is imperative before any food terms are handled. Because organisms are found in the stool and the vomitus concurrent disinfection of these materials and the articles used by the patient is, necessary. Soiled bedding or clothing should be sterilized or permitted to dry in the sun. Vibrio do not survive drying.

Prevention:

The most effective preventive measures are the protection of the food and water supplies from faecal contamination.

Health Education:

People should be educated by various audiovisual means on the principles underlying cholera infection. The importance of prevention of water supply from pollution and the efficient and quick disposal of human excreta and prevention of fly breeding should be impressed upon the community. The use of soap and water for cleaning hands particularly before eating should be insisted upon.

Besides the community measures detailed above the following methods of personal prophylass's are helpful.

1) Any tendency to diarrhoea or indigestion should be corrected and stomach should be kept reasonably full in order to give acid reaction which is inimical to vibrio.

2) Avoid cold dishes and other food and drink during travel and also bazar made articles, food should be thoroughly looked just before it is eaten.

3) Drink boiled water

TYPHOID

Definition and Disease

Behaviour

It is acute infectious, communicable disease. Characterised by continuous fever, malaise, anorexia, headache, intestinal symptoms and slow pulse. The disease is prevalent throughout the world though its incidence has markedly decreased in those countries in which water supply is pure and milk is pasturised. The case fatality rate is about 10 per cent. Relapse occurs in about 10 per cent patients.

Man is the only specie which serves as a reservoir of infection. Infected persons may be cases of carrievs. Cases may be mild or severe. Carriers are of three types;

1) Convalesceent 2) Chronic 3) Healthy

1) Convalescent Carriers:

At least 50% of the patients continue to discharge bacilli in their faeces for three weeks after onset of the disease.

Five per cent discharge the organisms for 11-13 weeks and 3 per cent discharge then for f months.

2) Chronic or Permanent Carriers:

This is the person who has not suffered from typhoid fever within the previous 12 months and who discharges typhoid bacilli. About 2 per cent of typhoid patients become typhoid carriers.

3) Healthy Carriers:

Healthy carriers are those who discharge organism without having had a clinically recognised attack.

The organisms resides in gall bladder, intestine, kidney, bones and cartilages. The organisms escape in stools and urine of cases and carriers and rarely in saliva and sputum.

Transmission to new hosts occurs directly or indirectly through contaminated food, fingers, fomites, faeces, and flies. Transmission is influenced by season, the incidence of disease being higher in summer. Cultivated soils impregnated with organic matters in sanitation, defective system of refuse and human excreta and contaminated water supply are the several factors of physical

environment which raise the disease incidence. Since house of flies play an important part in the mechanical transmission of infection, the increase of disease in summer may be partly due to increase in the number of flies in this season.

Lack of pure water supplies, existence of privy ( ) system for human excreta and its use as manure, unsatisfactory refuse collection and disposal, non protection of food from flies lack of personal hygiene, and absence of provision of immunization are the direct result of poor economic conditions, ignorance, bad community organization and defective administration. War, famine and migration are other environmental factors which markedly increase the disease incidence.

The typhoid bacilli enter the body through mouth from infected food. They multiply in the alimentary canal and then multiplied and enter into the blood stream.

The incubation period varies from 03-40 days usually 10-17 days.

PREVENTION:

Pure water supply, and improve drainage and sanitary conditions diminishes the incidence of disease.

Disinfections:

Stools and urine should be disinfected with chemicals, 5 per cent carbolic acid, 10 per cent formalin, 3 per cent bleaching powder, one per cent cresoil. Urinals and bed pans should be washed with the disinfectants. Sputum should be burnt. Other articles like books, toys, thermo-meters etc. should be properly disinfected.

Immunization:

Vaccine containing killed culture of typhoid bacilli, when inoculated into healthy persons, increases antibodies in serum of such persons and children, the immunity lasts for about one year. The school teacher must observe, that when typhoid is epidemic, the immunization of school children must done.

Bacillary Dysentry:

Bacillary dysentry is an acute infectious disease characterised by fever, abdominal pain, tenesmus and frequent stool which contain mucus, blood and pus.

Bacillary dysentry is due to infection with a bacillus somewhat allied to the typhoid organisms. (shigella dysentriae). The reservoir of infection in all instances the human being. Most infections are by the mild,

unrecognised cases, who consider that they have nothing more than a transient diarrhoea. Escape of organisms is with the faeces. The bacilli appear in the stool with the first symptom and persist for a period ranging from a few days to a few weeks.

Transmission of infection is identical with that of typhoid fever except that the organisms are somewhat less viable outside the body.

Outbreaks due to water, milk, and food of many varities have been frequently described.

Most of the infections within the home and institution appear to spread by rather direct association with a prior case. Disease may occur at any season of the year but generally is most prevalent during the warm and hot seasons.

ENTRY: into the body is through the mouth. The incubation period is about two to seven days. All ages are susceptible to the infection but men are especially affected, particularly those between the ages of twenty and thirty years. The disease is common in children and affects many under two years of age.

Predisposing factors are lack of sanitation, heat, hardship, malnuitrition and privation, overcrowding and impaired resistance.

Prevention:

- Personal hygiene
- Clean water
- Sanitation
- Properly cooked food
- Anti-flies measures
- Protection of food

The case should be treated in the same manner as typhoid. Waste food from the patients meals should be burnt not put into the garbage can. Before throwing stools or urine discharges into a toilet or privy, they should be thoroughly mixed with chloride of lime in the bed pan and allowed to stand for one hour.

Trachoma

This is another disease which can spread through scarcity of water and contaminated water. The name trachoma is deribed from a Greek word meaning rough. The disease is a specfic, chronic, communicable infection of the conjuctiva and cornea.

Chlamydia trachomatis is the causitive agent.

Transmission:

The disease is transmitted by direct contact, fomites although insect sectors, especially flies may play a role. The acute forms of trachoma are more infectious than the cicatrical forms.

Immunity: Natural immunity to trachoma is minimal and any acquired immunity is short lived, lasting for only a few weeks or months. Immunization fails to protect man against infection.

Prevention and Control:

Education in the principles of good hygiene and avoidance of infection with trachoma should be integrated into the overall health education programmes conducted in schools and communities. The programmes should include instruction on the role of the use of a common wash basins are towels in spreading the disease and patients should warn against the sharing of eye, cosmetics in urban areas. It has been found repeatedly that improving the sanitation of a village especially by the introduction of safe running water into the homes, has resulted in a marked reduction and in the prevalence of trachoma.

Since flies are thought to be the vectors, the eradication of their breeding grounds and the proper screening of houses are helpful in preventing epidemics of both bacterial conjuctivitis and trachoma.

Surveys of school children with each child found to have trachoma used as an index of infection in the family of that child, are helpful in searching out infected families and designating them for treatment. Supervision of the treatment of both the child and the family is always adviseable and is often a requirement of success.

In trachoma surveys, all personnel manipulating the eyelids of patients should rinse their hands in disinfectant lotion after each examination.

Once therapy is started, the patient is not infectious and need not to be isolated. All these patients can become reinfected, however, so that frequent reexaminations and the treatment of all patients with active disease in an endemic area are important if the prevalence of trachoma is to be reduced in that area and the eventual eradication of the disease accomplished.

The trachoma is often seen in those areas where the pond water and rainy water is used. So the community and children should be advised to clean that water by boiling or other means.

SESSION 6

Immunization:

There are many happy healthy children in Pakistan, who while growing up have few or no serious illness. However, often children get sick and some will even die from diseases that pass from child to child.

Definition:

Immunology deals with complex defense mechanism of the body and also with equally complex invading agents. Immunity is the defense mechanism of the body or in otherwards the reaction of the body towards any foreign substance or non self.

EPI:

The global expanded programme of immunization was launched following a resolution of world healthy assembly in May 1974. The member governments in expanding or establishing national immunization programmes with objective or reducing to negligible level morbidity and mortality from liptheria, pertusis tetanus, poliomyelitis, tuberculosis and measles to make immunization against these diseases available to every child in the world by the year 1997, and promote the delivery of immunizations through the local comprehensive health services, and in matters of vaccine production as well as its quality control.

Pakistan started this porgramme by conducting a field survey in June-July 1978 with the help of UNICEF and WHO.

Immunization activities are an integral part of primary health care and they are developed as a horizental programme, integrated with the existing services. It has provincial for logistics, training, technical, coordination, evaluation and reporting. The provincial heads are to be headed by an, EPI Manager who is assisted by an operational officer and supportive services.

Now we will discuss each of the vaccines available and the specific disease which can be prevented:

BCG

The first vaccine we will talk about is called BCG. BCG vaccine helps to prevent tuberculosis (T.B). Tuberculosis is a serious infectious disease usually located in lungs. It causes cough that make on person spit up thick sputum and sometimes blood. People suffering from this disease loose weight, have no epitite, become weak and pale and having unatural sweating at night. There is a treatment of TB, but it is long treatment. Those who do not follow the treatment recommended by the Doctor often die after a long period of suffering.

T.B is passed from one infected person to another usually an adult, through coughing and spitting to a healthy baby or child. But this disease can be prevented if BCG vaccine is given before the healthy baby or child comes in contact with a person sick with T.B, the BCG vacine can't build the special defence against T.B, because of this fact, the vaccines must be given to infants and children before they have contact with some one who is sick with T.B.

It is recommended that newborn infants and children upto the age of 15 years be given BCG vaccination.

The BCG is given by injecting in the skin a small amount of the vaccine in the upper right arm. Immediately after the infection a small raised area, in the skin can be seen. This raised area after 2-3 days, will become red and slightly painful. The red area then becomes sore and a seals over the sore will form. In a few weeks the seals will fall off and a small scar is left behind. This is the normal. The mother should be told that this will happen and taught not to touch or put anything on the sore like oil or medicine or bandages, or cloths. It will lead itself if not touched.

Diptheria:

This is a disease that mainly occurs in young children and it is passed from a child sick with diptheria to a healthy child. A few days after contact a temperature and pain in the throat develops. This is followed by the formation of a white grayish white or gayish green unembrane in the throat. Sometimes this membrane stops the breathing and the child die.

Discussion:

Find out if any teacher have any knowledge or experience with this disease. Find out and use the local name for diptheria.

Whooping Cough:

This disease is more common and like diptheria usually occurs in young children, and is also spread by contact with sick persons. First the child

develops a dry cough which gradually becomes more severe and frequent. Then a member of cough occur without stopping, even for taking a breath. After a continuous member of cough the face become deep red in colour when the coughing tops a deep breath is quickly taken and the whoop sound is heared. During and following the cough a large amount of thick sputum is produced. Sometimes there is vomitting.

Vaccine Used:

Discussion: Encourage teachers to talk about their knowledge or experience with whooping cough and ask if they have ssen any child suffering from such type of diseas.

Vaccine Used:

Tetanus:

This is a very serious disease occuring in all ages from newborn babies to old age. The disease develops when dirt or low-dung or animal dung enters into a sore or open wound. Tetanus causes tightness of the muscles of the neck and gaw. Later the muscles become so tight there is difficulty worth swallowing and breathing. Usually this disease causes death.

Discussion: Encourage teachers to talk about their knowledge or experience with tetanus and ask if they have seen any infant or child suffering from this disease.

POLIO (Falaj)

It is a very serious disease, and is spread from child to child and it causes fever headache, and sometimes cause a vomitting. As polio progresses the fever and headaches increasing the neck and back muscles loose all their strength. Often children die because of polio but those children who get well may have a shrunken arm or leg and are so weak that can't walk.

This serious disease can be prevented if children are given polio vaccine. To prevent polio, an injection is not needed but rather a special vaccine is given by mouth in three doses.

Discussion: Have you seen any child suffeirng from this disease, and knowledge regarding this disease.

MEASLES: (Khasra) Vaccine

This is a vaccine which prevents child from developing a serious disease called measles that spreads very quickly among the children. It is very serious disease because it makes the child very weak, especially those children who are under-nourished and they may deelop other illness like

pneonia and die. A child with measles begins with cough, fever and red watery eyes. After a few days a light prink rash appears on the face and neck then spreads over the entire body. This lasts for a number of days.

Discussion: Encourage teachers to talk about their knowledge and experience with measles and have they seen any child suffering from this disease.

Mothers should be told that the baby may develop a mild fever and a very mild rash after receiving this vaccine. These symptoms are expected and it shows that the vaccine is helping the baby build a special defence against measles. The symptoms will last for only a short period of time.

Note: All the vaccines would be discussed by showing different pictures of the children suffering from these diseases. Immunization schedule would also be discussed.

NUTRITION

Especially in Children

Why do we need Food ?

We eat food not only to stop hunger by filling our stomachs, but our bodies need food with particular nutrients to work, grow and stay healthy. Therefore we must eat enough of the right foods. Most children suffering from

malnutrition are ill not because they are not eating enough food, but because they are not eating the right foods that their body need. In other words they are dying from hunger with full stomachs.

Different Kind of Foods:

All foods are made up of nutrients. In order for us to stay healthy and to have normal growth we must get enough of these nutrients different nutrient groups are;

Energy Goods: Carbolydrates, fats and oils are called energy foods because they provide the necessary energy or fuel to our bodies for warmth, performing work, walking and other activies.

Carbolydrates	Fats and Oils
Sugar and brown sugar	Ghee
Honey	Cooking oil
Bread	Butter
Rice	Ground nut oil
Potato	
Banana	

Body Building Foods:

Foods containing large amounts of protein are called body building foods because our muscels, skin, head, and other organs are built of proteins. Proteins are essential for repair of cells, growth and resistence to disease.

There are two kinds of proteins;

- Animal protein
- Plant protein

Animal proteins have everything for our body needs, so animal proteins are the most complete, but they are also expensive. Plant proteins are good, but do not have some necessary components that our body needs. However they are cheaper than animal proteins. Different plants lack different proteins or add a small amount of animal protein to our diets, then the body's requirements for protein will be met.

Animal Protein	Plant Protein
Meat of all kinds	Beans
Chicken	Peas
Fish	Cereals
Eggs	Ground Nuts

Milk	Dark green
Cheese and other milk products	Laeves

Protective Food:

Vitamins and minerals are called protective foods, because they keep our eyes, skin, blood and teeth healthy. Examples of vitamins and minerals.

Fruits: All kinds especially the raw fruits

Vegetables: Especially yellow and dark green leafy vegetables, cereals, animal proteins

The Balanced Meal:

For an adult to stay healthy and to be able to work hard, and for children to be able to grow, they need all three kinds of nutrients.

- The body building proteins
- Energy giving carbolydrates and fats
- The protective vitamins and minerals

We also need enough of each kind of nutrients. A meal may contain the right amount of these three groups are called a balanced meal. It is not necessary to have a balanced meal every time we eat but we should eat some of each of these three kinds of nutrients at every meal.

Make sure that your children get enough protein food together with energy food. The most reliable sign that the child is getting enough good food is normal growth. This can be checked by weighing the child in BHU. Growth charts are used to indicate a childs normal or abnormal growth.

How much of each nutrient we need depends on what kind of person we are and what type of job we have.

People with Special Diet Needs:

1) Pregnant Woman: A pregnant woman needs extra food for the baby growing inside her body, and especially calcium and iron.

2) Children: Children grow fast, play and run a lot, so they need extra food for energy and growth.

3) Breastfeeding Mother: A breastfeeding woman needs extra food in order to produce milk for her baby.

4) Sick Persons: Sick people need extra food for the rebuilding of their babies and to fight against disease.

Disease Caused By Malnutrition:

Malnutrition occurs when a child does not eat enough of the right foods. Children do not grow well physically and mentally when they are malnourished.

Lack of Energy Foods:

Energy deficiency is common among children. Under five years of age, usually in rural areas and. They easily get infections, especially measles, tuberculosis, and diarrhoea and many of them die. These children are said to have marasms, or dry malnutrition. In other words they are starving.

A marasmic child has the following characterisitcs:

- Always hungry
- Thin old man's face
- Thin muscles and no fat
- Very underwieght and thin

Children with marasmus are very thin and wasted. Their bodies are small and their face resembles a worried old man. The belly is distended and they are usually hungry all the time. They need more food, especially energy foods.

Night Blindness:

Vitamin A is needed for healthy eyes and skin. It is available in many yellow vegetables and fruits, such as carrots and mangoes. Vitamin A is also found in dark green leafy vegetables such as spinach. Lack of this

Vitamin causes night blindness.

Anemia:

People or children who do not eat foods with iron may develop anemia. The body needs iron to make blood. Foods such as eggs, dark grey leafy vegetables, meat and fruit like apples have iron.

Lack of different Vitamins:

Lack of different vitamins, which comes from not eating vegetables and fruits, causes skin problems, bleeding gums, and sores on the lips and mouth.

Lack of Iodine:

Iodine is found in very small amounts in water and some foods. Not eating enough iodine causes a swelling of the thyroid gland or goiter. We can combat iodine deficiency by eating salt that has been iodinized.

Lack of Flourine:

Lack of flourine in water causes caries 60 decayed teeth.

Causes of Malnutrition:

Malnutrition usually seen from poverty and lack of knowledge about the right foods to eat. Lack of health care and diseases makes the problem worse. Although malnutrition is directly caused by not getting enough of the right foods, some general factors that contribute to malnutrition are.

1) Low Birth Weight: These children are borne small and malnourished because the mothers are malnourished. The reason for the mothers malnourished state may be the short interval between births, may children to close together the mothers disease when pregant or her ignorance about the right foods to eat while pregnant.

2) Delay in introducing additional foods: Breastmilk is the best for babies and should be given untill two years of age. However by itself it does not deliver enough nutrients to sustain the child after the age of 4 months of ages and should be increased in amount as the baby gets older, otherwise it will become malnourished.

- Failure to breastfeed or using bottles
- Infectious diseases, especially repeated diarrhoea or measles
- Twins
- Not eating enough

Children have small stomachs and small amounts of food very often. These meals per day are not enough for them. They must eat more often.

Feeding of Young Children:

A) Breast feeding is best

- Breastmilk is the perfect food for baby
- Start breastfeeding as soon as the baby is born
- Give only the breastmilk during the first four month
- Don't start the bottlefeeding just because the baby cries

B) Start Porridge at four months

- Start adding porridge at four months
- Give blend, soft food at first
- As soon as the child is eating porridge well, add protein food to it
- Give a child four to six small meals per day
- Continue breastfeeding untill the child is able to manage other food
- Baby food must be well mashed
- A young child needs his own special plate, cup and spoon

C) Give protective food to children over four months

- A child needs some protective foods every day
- Teach mother to give their children yellow vegetables and fruits such as carrots

D) Sick children need special feeding

- Don't stop feeding when a child has diarrhoea or other disease
- Take special care of children who have a sore mouth or who don't want to eat
- Give sick children plenty of protein food

E) Food after first year

- A child can't eat or share the family food about the age of one year
- Give priority to feeding small children in the family
- Help a young child to feed himself
- Breastfeed a child unitll he is 18 months or two years old
- Pregnant mother can also breastfeed
- Feed young children often
- Give the child more food from the family pot as breastfeeding is decreased
- All nutritional diseases are preventable

- Don't waste money on unnecessary items like soft drinks, which have no nutritional value
- Produce good food in a kitchen garden
- Grow vegetables and keep hens for eggs and meat

In the last the teachers of the schools would be advised, that they should keep their eye on those children who are malnourished, the teachers can contact the mothers and can tell the disadvantages of malnutrition. In the class teachers can also teach the children about the right food which is really needed.

SESSION:

Dental Health:

Dental health is an integral part of the general health and the oral cavity is being considered as mirror of the rest of the body. An adequate and healthy dentition along with supporting tissues can play the effective role in general health, its growth development and preservation, even in maturity and old age.

Inadequate nutrition and deficient intake of food may effect the development and even embroyouic stage when teeth are decayed or painful or bleading for the gums. Such small ailments pertaining to oral health can disturb the balanced food intake and thereby the body suffers malnutrition.

Chewing is carried out by teeth and it is only the healthy teeth which provide proper mastication. This help in promoting the expansion and development of jaw and bones.

Many other matters like, speech, personality and aethetics are effected due to dental ill health both of the child and that of adult. Thus there is need that the teeth should be cared under a system of education. The health professions in their training or the school teachers should impart education and knowledge about the oral health education because teeth and gums are part and parcel of the body. They are supplied by general blood supply and are controlled by the general nervous system.

TOOTH MORPHOLOGY:

Human being possesses two complete sets of teeth in their life time. The primary dentition commonly called the baby teeth "or milk teeth" and the permanent dentition, which replaces the primary one dury childhood. There are twenty primary and 32 permanent teeth.

DISEASE COMMONLY OCCUR:

Gingivitis:

Inflamation of gingivac may be an acute or chronic in process. If the injury is retitious and it causes acute reaction than serious break down occurs. Mostly the inflamation is chronic in nature and is the response to a low grade non-intense irritant.

In gingivitis, we can classify it according to the pathological conditions.

1) Acute conditions like acute ulcerative gingivitis
2) Chronic conditions like chronic gingivities
3) Degenerative conditions like gingivosis

There is another disease called stomatitis. it means the inflamation of the oral cavity, or any part of it including gingivac (gingivitis) and tongue (glossititis). It may be caused by the large variety of factors and may either result from local irritation or be a feature of systemic disease.

Stomatitis may occur due to the following reasons.

1) Thermal : e.g. hot food stuffs
2) Mechanical: e.g. fishbone or excessive application of tooth pick
3) Chemical: e.g. so called asprin burn which is caused by holding an asprin tablet
4) Electrical: e.g. Galvanic action when two different metals are used in mouth like filling or crown

It may occur due to some systemic infection like Measles Herpes foster etc.

Acute ulcerative gingivitis may also a cause of stomatitic. Acute ulcerative gingivitis can be developed by the following organisms:

1) fusiform bacilli
2) spirochaetes
3) Vibrio

Treatment:

Penicillin has been proved to be effective drug. Metronidazole is equally effective.

Local Treatment:

The teeth should be thoroughly clean, debris and calculus may be removed, by cotton woold. Hygrogen peroxide may be used for mouth wash.

Prevention:

The patient should be instructed not to use the utensils to each other, because the disease has effected army men and this is the reason it is called "trench mouth disease". Oral hygiene is must and tooth brush may be used after each meal. The population and the children especially in the schools may be advised for intake of balanced food and they should look after their health, if there is any health problem, general weakness. Stress and strains, this can be invite the disease.

NEEDS OF THE SCHOOLS AND THE COMMUNITY:

The major needs of the rural communities and the schools are;

1) Immediate availability of the dental aid
2) Relief of dental pain
3) Proper guidance and assurance for dental problems

SCHOOL TEACHERS LIABILITY TO TEACH SCHOOL CHILDREN:

In most of the schools it has been observed that the children are not guided well with respect health and hygiene. So the teachers should accept this challenge, and especially in dental care the following points with explanation keeping in view the diseases of teeth should be taught.

Oral Hygiene:

Oral hygiene provides a better standard of oral cleanliness and feeling of fresh and clean mouth. Primary factor in oral hygiene is necessity of cleaning the teeth in some way after each meal or snack and especially after evening meal and breakfast. Parents are advised to do this method before their children, so that they should follow and start cleanliness of their teeth as early as possible.

The teachers of the school can play their role in following up these practices by watching.

Method of Oral Hygiene:

The following are the methods;

1) Tooth brushing or miswak
2) Oral rinsing
3) Use of balanced diet

Tooth Brush: has been effective for oral hygiene in decreasing dental disease because it removes plaque, and takes was food practices. The tooth brush should be medium, teeths or nylon bristles should not be too hard or soft. The brushing should be from the gums towards the teeth. The brush should

be changed after or renewed after two or three months and each person should have two tooth brushes with different colour, one for morning and one for evening, this provides a chance to the teefts to become harder or dry. The brush should be carried out for at least five minutes and maximum 10 minutes duration. Lingual sides or back side should be given more attention.

Tooth Paste:

Tooth paste is a medium through which we take away the food particles and in this way fermentable carbolydrates and bacterial activity is interfered and plaque formation is distributed through the mechanical action of the tooth paste, tooth brush by flow of saliva as flow of saliva is more and thereby bacterial activity becomes a minimum. (Tooth paste with fluoride is preferred) or basis of many studies carried out.

Prevention:

Electric Tooth Brush: Electric tooth brush has been introduced that they have proved equally with the mechanical method of tooth brush and no superiroity has been established, however mentally handicapped and caodiac patients are advised to use appliances.

Oral Rinsing: It is effective in removing the sugar and it indulits the plaque formation and studies have proved oral rinsing and finger, vigorously can remove most of the particles, and this is essential during the ablution prior to the prayer. Oral rinsing machines are also available. Sometime oral rinsing is advised with antiseptic solution which has proved effective.

Detersive Food: Fibrous food, at the end of the meal can take away the soft debris from the mouth easily and after its taking, the brushing becomes more effective and mouth becomes clean. Soofi (1962) made a study on school dental health survey for influence of dietry habbit on 1507 school children of Quetta. The children with soft food (i.e. snacks, biscuits etc.) were found 99.9% sufferer from dental disease as compared to 78% of those having the fibrous food.

Diet: The children and expectant mothers should be provided balanced food. Shortage of protein or fats in a childs meal does not provide hunger satisfaction to the child, thus the child desires to eat again and again, snacks or bsicuits in between the meals which provides more time to carbohydrates to be in mouth, ultimately it is being broken down to acids and dental cares becomes very common. Soofi in (1979) made a study of Nathia Gali School children at Abbotabad (nomades) who used to sell the tofees and sweets thereby they developed habbit of eating and they were found with more dental diseases as compared to those who used to take less sweets. Similar study of Soofi carried out in five villages of Punjab in 1975 showed the same result.

So the sweets should not be taken so frequently in between the meals and sweet dish should be taken before the meal and at the end of meal pieces of fruits may be taken. The infants should be provided breastfeeding as such artificial feeding can cause irregularity in teeth in addition to many other factors. In sickness children should be avoided from the use of tetracycline clinics antibiotics because they can stain the teeth of the children.

In areas with more fluoride salts in water, the teeth are brownish but the areas lacking the fluoride salts i.e. less than 1300 hours of fluoride in drinking water can lead to dental problems.

Fluoridation of Water:

It has been established beyond doubt that the consumption of drinking water containing about 1300 hours of fluoride reduces the incidence of dental cares in young people by about half compared to those consuming fluoride free water. In the areas of Pakistan, where water is lacking 1300 hours fluoridation may be carried to prevent dental decay.

Alternative Methods of Administering Fluoride

There are certain group of people who are of the opinion that public water supply should not be used for administration of fluoride, to control dental disease and a vehicle may be searched out which is under the control of individual, they are the following:

1. Fluoride Tablets: Tablets containing about 1 mg of fluoride have been used in two ways, either as a means of fluoridating the daily water supply at home, or taken each day as a pill alongwith food
2. Fluoride of Milk: Certain people have studied the use of fluoride in milk, instead of in public water supply.
3. Table Salt: Table salts has become popular at the table.
4. Topical Application: In many countries of the world topical application of the fluoride has become popular as it prevents the dental disease.

Dental Health Education:

Dental health education is a modern concept in public health because it concerns the community and through this process a change in a behaviour of an individual is brought out through the medium of spelling out knowledge and creating interest in his aptitude towards the dental health and this method has proved valuable in public health dentistry.

Health of School Child:

The schools are best places for health education and demonstration for the prevention of the disease with the following headings:

1. Eat well, chew well, eat all the things and reduce sweets, sticky or soft food between the meals.
2. Remove the food particles from the mouth after meals and specially last thing at night by means of a tooth brush and a paste in correct manner (miswalk can be used where tooth brush and the paste is not affordable)
3. Finish: Finish the food with hard food and rinsing the mouth with water.
4. See: See the dentist regularly and receive the frequent treatment, advice the health education.

SESSION 11:

Review of Knowledge excreta based diseases and advantages of Latrine and Garbage Disposal:

In this session first of all the sources of contamination would be collected e.g.

1. Open excreta
2. Contaminated utensils
3. Conaminated hands
4. Contaiminated food
5. Garbage
6. Open drains
7. No sanitation
8. Bottle feeding
9. Flie

The main source for contamination would be sought out through consensus, which is obvious i.e.

EXCRETA

Because most of the infectuous, travels from excreta, because when it will be open flies will come and they will transfer the bacteria to food and other objects. Now if that food and the object are taken by a child, they will be suffer from the diseases like dysentry, typhoid etc. If the excretra

is open in the field then soil itself will provide a source of infection, by walking with bared footed following diseases can aris.

1. Hook worm infection
2. Bilharzia

Faecal-Oral Diseases (Non Bacterial) Improvements in excreta disposal will have differing degrees of influence on the various faecal-oral diseases. Some of these infections caused by viruses, protozoa and worms can spread easily from person to person wherever personal and domestic hygiene is not ideal. Changes in excreta disposal methods are unlikely to have more effect on their incidence unless there are great changes in personal clealiness and major efforts in health education e.g. Polio, Rotavirus.

Faecal Oral Disease (Bacteria)

For the faecal oral disease caused by bacteria, person to person transmission routes are important but so too are other transmission routes with longer transmission cycles, seen as the contamination of food, crops, or water sources with faecal material. Some of the pathogens are also passed in the faeces, of animals or birds e.g. salmoella.

It is obvious that excreta is the main factor for spreading disease, it can also be explained by the following:

How we can control ?

Excreta focus of infection)		Water - Handpump, or
	)	manual cleaning
Excreta	)Sanitation	Hands - Health Education,
Focus of Infection	)Barrier	washhands
		Soil - Latrine
		Flies - Health Education

If we put a sanitation barrier, and with the help of hand pump, latrine and health education we can minimize the excreta based diseases.

GARBAGE DISPOSAL

Garbage is also called refuse or solid waste. If it is not disposed properly, there is a risk of occurance of disease. Flies and rats live and breed in refuse. Mosquitoes can also breed in pools, cans, and tires where water has collected.

Apart from diseases, refuse left lying around can cause problems, such as spontaneous fire, borken glass and sharp metal edges can cut barefeet.

Burning: Burning is fairly good method of disposing of garbage. However refuse is oftenly vegetable peelings and other wet material which does not burn

easily. Sometimes these can be dried in the sun and then burned. The ashes from bruned refuse may be put down pit latrines to help stop them from smelling.

Burying: Burying is a very good method of disposing of refuse and of filling in pools of stegnant water. The refuse is placed in a ditch or pool and then covered with mud or eath. This stops flies from reaching the garbage, but will not deter rats, which may dig through it. The garbage should not be buried close to a well as the well may become polluted. This can happen especially after heavy rain.

SESSION 14:

Discussion on the use of health and hygiene education material including messages, posters, chart, and its distribution:

In this session knowledge about good health and hygiene material especially for children and also for the community would be gathered and through discussion their knowledge would be upgraded. The following characteristics are must for the good health and hygiene material.

1. Easily understandable
2. Culturally and socially appropriate
3. Practical
4. Brief
5. Relevant

6. Technically correct

7. Positive

8. Colourful and attractive

1. Easily Understandable

An individual's ability to understand an image depends on his age, experience and intelligence. Your experience may be wider than that of your audience, therefore try to discover to what extent they understand pictures. When we look at a picture we have learnt to understand perseptive, overlap, highlights and shadows. An illitrate and a child can see the things differently. In schools the children however can learn quickly to interpret pictures if the subjects are well known. Familiar objects in a picture help them to understand it.

The message on the pictures should also be very simple and clear so that children of primary classes, may can understand well.

2. Culturally and Socially Appropriate

In Pakistan one should be very careful in ensuring that all visual aids produced are culturally appropriate. If not, it may offend people which will create a resistance to receiving the messages. Any images including women should be carefully shown.

It is important to ensure the pictures show appropriate social settings and that are not unfamiliar to audience or children. If you dipict a city scene of a beautiful school building and show it to a rural school, they

may not identify at all with pictures and miss the message or may just be confused.

The language should be simple, if there are written messages and should be in local dilects and as informal as possible. Messages in Urdu may be preferred.

Practical: It is important to ensure that it is possible for people to implement the messages given. If people and school children are instructed to do things which are not possible then it is a waste of energy and time to give those messages. For example telling people to prepare salt-sugar solution for oral rehydration in areas where sugar is not available is impractical; therefore such messages should not be used in these areas.

Messages should be economically practical. Expecting people and schools to purchase items and construct facilities which they rarely can't afford is stupid. Less expensive alternatives should be sought.

4. Brief: It is much easier for people and children to absorb one message rather than a series of messages at once where the most relevant may be lost. All messages should be kept as short as possible and should state the messages concisely. When producing a set of pictures one should also ensure that there are not too many as this can also confuse people and children to lead to bedroom if they are all shown to audience.

5. Relevant: Any messages given should be relevant to the target audience. They should be issues which are prevalent within the community and

schools, e.g. giving a talk on malaria in communities where malaria is not major health problem is taking your valuable time away from dealing with other imporant issues in the community.

6. Technically Correct: If any health or other messages given to the school children or the community are incorrect they will confuse them and can lead to problems. If in administering drugs or injections an inaccurate message is depicted then this can lead to serious consequences. All messages should be technically consistant and not contradict each other. Always check your message with othe rpeople who are knowledgeable in order to ensure that they are accurate.

7. Positive: Positive images can work better than negative ones in terms of posters especially in children. They can reinforce the message. Negative images can be used but should be left of inclusion in a series of pictures or flip charts where they can be completed by postive, images, and there is an extensive worker available to explain them.

Colourful and Attractive: The posters should be colourful and attractive, because it is human psychology that children usually attract towards colourful things. So it could be used.

A practical exercise would also be conducted at the end of the session. Following health and hygiene material will be used.

1. Charts on pour flush latrine

2. Chart on diarrhoea control
3. Chart on hygiene
4. Chart on immunization
5. Different pictures used in story of health and hygiene
6. General messages
7. Demonstration chart on personal hygiene
8. Demonstration chart on garbage disposal
9. Demonstration chart on vaccine

SESSION 15:

Discussion on diarrhoea and its prevention

Video film presentation on diarrhoea:

This session would be conducted in participatory manner, the participants would be allowed to discuss openly and the solutions would be gathered.

Definition: What is diarrhoea

It can be defined as the passing of more than three watery stools per day

Causes of diarrhoea:

A person who is passing diarrhoea, in fact he is passing germs in his tool. If the germs reach the mouth of another person, he, too will get diarrhoea.

Diagram

Diarrhoea can be passed directly or indirectly:

Direct Contamination

When we drink water which is not clean (from a pond, a river, a spring or a well which is not protected) or water which has been kept in a dirty or uncovered container.

- When we eat dirty food which has been badly washed, which has been

left outside or in a warm place for too long, or which is not protected against flies and animals.

- When we eat certain foods which have not been cooked long enough.
- When we eat with dirty handss (after working, playing or defecating)

B) Indirect Communication:

When flies carry germs from faeces or dirt to water, food, fingers, and utensils.

We can get diarrhoea because of the conditions like malnutrition, general infections like measles and malaria, local infections like tonsilitis and ear infections, poisoned food and from some antibiotics like ampicillin and tetracycline etc.

Treatment: There is no need to be overly worried about diarrhoea. It is natural defense mechanism to rid the body of germs. Different medicines against diarrhoea are not only unnecessary and a waste of money, but can also be very dangerous, because they suppress the natural processes by keeping the germs that cause diarrhoea inside the body.

Antidiarrhoea medicines
are dangerous. They
work like cork in bottle.

Diarrhoea by itself is not dangerous, but the real danger with diarrhoea is that through many watery stools per day, the body loses water and salt. If we replace the lost water and salt by giving the sick person water and other fluids, plus extra salt, we may save his life.

Prevention of diarrhoea:

Prevention of diarrhoea depends on breaking through the faecal/oral transmission cycle.

Protect water

Sanitary disposal
of faeces
Cover latrines

Clean water
Clean food - Mouth
Clean fingers

Wash hands after going to toilet

Complications: In this society, most patients, especially young children die from diarrhoea because of;

a) Loss of too much water and salt (dehydration)

b) Lack of proper food (malnutrition) which itself causes more attacks of diarrhoea.

Malnutrition

Body does not get enough food

Body can't digest food

Diarrhoea

As soon a person gets sick with diarrhoea, we must replace the lost water by continuing breastfeeding and by giving fluids like rice, water, soups, tea, water and juice as often as possible. Some people believe that when a person has diarrhoea, we should not give any liquids because this will make the diarrhoea worse. Unfortunately, if we stop giving fluids, the sick person will only get worse because he or she will become dehydrated. Instead we, must give a lot of water and fluids to a person sick with diarrhoea so as to flush the germs out of the body, therefore replacement of fluids as well as other foods, is very important for the sick person in order for him to become strong again.

A child with diarrhoea is like a pot with a large hole

Treat him by filling up the pot faster than the water flows out

Prevent the diarrhoea by making the pot strong. Give a child plenty of food.

If he has diarrhoea again start treatment immediately This will prevent him from him from becoming dehydrated.

Only a few case of diarrhoea will need medical advice. Get medical advice if

1. Patient has more than five liquid stools per day

2. There is blood and mucous in the stool.
3. Diarrhoea lasts for more than three days
4. Patient has high temperature or other serious complaints like cough
5. Patient is vomitting and is not able to drink by mouth
6. Patient has severe sings of dehydration

Conclusion:

1. Stop transmission of diarrhoeal diseases by using latrines
2. Drink only clean water
3. Eat only clean food
4. Wash your hands
5. Eat enough of the proper foods to prevent diarrhoea by malnutrition
6. Breastfeed your babies - bottlefeeding wills babies
7. Save lives: Give plenty of fluids as soon as someone gets diarrhoea

Dehydration and its Cure:

Dehydration: It is the loss of water and salt from body, causing the body to become dry.

Causes of Dehydration:

Two thirds of the body is made up of water. The loss of too much water from diarrhoea or vomitting, fever, sweating or other illness causes

dehydration. This can develop slowly over several days, or quickly within few hours. The stool of healthy child contains little water, but stool of a child with diarrhoea contains a lot of water. Mineral salts such as sodium chloride and potassuim, normally found in the stool, are also lost during the diarrhoea episodes and must be replaced. We can explain it with the example of a plant.

Without water With water

Diarrhoea is the main causes of deaths in small children. It has been estimated that 45% of the deaths in children are due to diarrhoea. The following are the causes of diarrhoea which results in dehydration

Death

Diarrhoea

Spread of Infection

Poor Hygiene Sick Child Low Resistence

Lack of Education Poor nutrition

Sings of Dehydration:

1. Sunken fontanella
2. Sunken eyes
3. Thirsty dry mouth
4. When pinch skin, it does not return to normal
5. Sudden wieght loss
6. Fast, weak pulse

Loss of Weight: When a person becomes dehydrated, his body loses a lot of water and weights less, because drying out is very serious and dangerous in small children, the loss of weight in a child is a very helpful sign for mothers. They will notice dehydration when this child weighs less.

Thirst: thirst or a demand for water is a sign of dehydration

Sunken Fontanelle: Sunken fontanelle is a useful sign only in child first year of life

A sunken spot means the
body needs more liquid

Prevention and Treatment:

The germs in diarrhoea do not kill babies, the babies die from dehydration. Replacing the water and salt the person with dehydration has lost, or the rehydration is the best way to treat dehydration, and is much more useful than drugs.

Diarrhoea

Rehydration	Dehydration	Drugs
Yes	Death	NO

If a person starts to drink plenty of liquids or rehydration drinks as soon as he gets diarrhoea, dehydration can be easily prevented. As soon as the person shows signs of dehydration, you must give him fluids like rice, water, soup, juices, lassie, and dehydration drink (nimkol etc)

Rehydration or Coorection of Dehydration:

According to the WHO in 1980, five million children under five years of age (about ten every minute) die as a result of diarrhoeal disease. An estimated 60-70% of diarrhoeal deaths are caused by dehydration. Oral rehydration therapy can prevent and correct this dehydration and thus keep many of these deathss from happening. The best rehydration drink to give contains sugar, salt, sodium bicarbonate (making soda) and potassium (available in oranges and in lemons)

Oral Rehydration Salt:

ORS or Nimkol is a standard formula of the items mentioned above, which is provided in a prepare dry form. It is available for one litre preparation and halft litre packets.

How to measure one litre of water:

first clean drinking water is taken, it is boiled and cooled. Simply it can be measured with two big glasses, or with 5 big cups, or 8 small cups. We can use a clean jug to keep ORS solution.

Preparation of ORS

1. Wash your hands, cups, spoon and pot
2. Pour one litre of clean drinking water in to the pot or jug
3. Open the packet of ORS and pour the powder inside it into the litre of drinking water
4. Mix it with clean spoon
5. Tastes the mixture. It should taste a little less salty than tears.

Preparation of Home-made ORS

1. Measure one litre of clean drinking water and put into a pot or jug

2. Measure and level teaspoons of sugar and one level teaspoon of salt
3. Mix untill sugar and slat are dissolved
4. Taste the solution to be sure that is not too salty

Protection of Rehydration Solution and Administration

1. Use the solution one day it is prepared. Don't use the same solution the next day. Instead prepare a new one.
2. Keep the jug or pot covered in a cool place
3. Give sips of the drink every few minutes even if the person is vomitting
4. If the person does not vomit, wait 5-10 minutes and then give the ORS solution again
5. Use the cup and spoon to administer
6. For a child half to one glass should be given after each stool
7. For adults one to two glasses after each stool

A child will need about one litre of ORS solution per day. An adult will need 8 or more litres per day. Stop giving water when the child gets puffy eyelids.

When to seek special treatment ?

1. When a child has sever dehydration
2. When he can't drink
3. When other diseases or complications of diarrhoea is present
4. When the patient does not improve with oral rehydration therapy

Note: In the last a video film prepared on diarrhoea would be shown to the participants to strengthen the knowledge.

SESSION 16:

FIRST AID

INTRODUCTION:

First aid is skilled assistance in a emergency situation to a person or a child has been injured or who suddenly becomes sick. It is given before the doctor arrives and before the patient is transported to the hospital. First aid stops the problem from becoming worse, aids early recovery, and saves lives.

1) Burns:

Causes; The main cause of burn is fire, boiling water, kerosine oil stoves or lamps. Burns from these causes are painful and can be dangerous if they cover large area of the body, if the burn is deep.

Treatment: Minor burns (1st degree burn) these burns only involve the outer layer of the skin, there is no pain, redness and possible swelling, but no blisters. No treatment is needed to help the pain and lessen the damage, put burned part in cold water at once and keep it immersed for a few minutes. Take asprin or paracetamol for the pain, but the paracetamol is preferred.

BURNS WHICH CAUSE BLISTERS:

(2nd degree burns). Involves not oly the surface layer of the skin, but also deeper layer, don't break blisters. Put the burnt part in to cold water. If a large part of the body (area bigger than the palm of the hand) is involved, the person should get medical help.

The aim of first aid treatment is to;

1. Prevent shock: Put the patient in a comfortable place, with his feet slightly elevated and warm, sweat drinks. Keep the patient warm (wrapped in warm clothes or a blanket)

2. Relive the pain: Put the effected area in cold or ice water, and give patient asprin or paracetamol.

3. Prevent and Control Infection: Don't break blisters, if the skin falls off, keep the burn clean by covering it with a clean cloth or bandage.

- Don't put oil, sand, egges, milk, butter, vaseline, or anything else on burn.

- Keep the burn as clean as possible, protect it from dirt and flies.

DEEP BURNS:

(3rd degree burns) Involves the destruction of the skin and deeper tissues like mussels. Give the person first as mentioned above and send him to the hospital. Get medical help when

- The burn area is bigger than palm of the hand of patient
- When the burns are deep
- When the area around the joint is burned

FEVER:

When a person or child's body temperature is too hot, we say he has fever. Fever itself is not an illness, but a sign of a variety of illnesses. High fever can be dangerous especially for small children. Normal body temperature is 37C and 97.4F.

Treatment:

1. Remove unnecessary clothes. Small children should be undressed completely and left nacked untill the fever goes down. It is dangerous to wrap a child who has fever.

2. Fan the patient: Fresh air or a breeze helps to bring the fever lower. Pour cool water on him or put clothes soaked in cool water on his chest and forehead.

3. Give the patient lot of water and other fluids.

4. Give medicines like asprin or paracetamol to bring down the fever.

Poisoning:

Many children die from swallowing things that are poisonous. Anybody who has taken poison must be taken to clinic as soon as possible. Even when the person or child does not feel sick he must go, because some poison takes a long time to make a person feel sick.

Common Poisons to Watch out for us are:

- Rat poison
- DDT and other insecticide
- Medicines (when more than the proper dose is swallowed) especially iron pills
- Tuicture of iodine
- Cigaretts
- Matches
- Kerosine, gasoline, petrol

Treatment: If a child or person has swallowed a poison which has a strong smell like petrol or paraffin or a poison which burns like acid, or caustic soda, be must not vomit. Give him lots of milk to drink. If there is no milk give him beaten eggs or flour mixed with water.

For all other poisons, make the person vomit by putting your finger in his throat or make him drink water with soap or salt in it.

Prevention:

- Keep all poisons out of reach of children
- Never keep kerosine, gasoline or other poisons in coca cola or soft drink bottles (children might try to drink it)
- Wash all vegetables to clean off the insect poisons which farmers sometimes spray on the field
- Give children the right amount of medicines. Such as cough mixtures, asprin etc.
- Don't cook in copper pots.

CUTS AND WOUNDS

A wound is when the body is hurt and bleeds. Wounds can be serious, even deadly, because loss of blood. Wounds can also become swollen and very sore.

Most wounds are caused by knives, broken glass, blunt objects, falls or road accidents.

Treatment:

Cleanliness is the most important thing to remember in preventing infections and aiding wound healing.

- First wash your hands with soap and boiled water before you treat a wound;

- Then wash the wound well with soap and water. If you have any dettol, put a little in water. Be careful to clean out all the dirt from wound;
- After cleaning the wound, put a clean cloth over the wound and press it down. Tie the cloth to the wound with a clean bandage;
- Use spirit or iodine tuicture;
- Never put animal faeces, mud or chewing tobacco on the wound. These can cause dangerous infection like tetanus;
- If the wound is from falling or with some rusted object immediately contact hospital for antitetanus injection;

NOTE: Every school should have a first aid box available with teacher. So he or she can provide first aid immediately.

BLEEDING:

External Bleeding: When a part of the body is torn by cut or by crushing injury, the blood escapes to the outside. This is called external bleeding.

Internal Bleeding: When an internal organ of the body, such as spleen or liver is damaged or raptured, blood escapes from blood vessels to one of the body cavities. This is called internal bleeding. A person may lead to death by internal bleeding even there is no any drop of blood escapes to the outside of the body. Sometimes this blood is

expelled through one of the body openings e.g. bleeding in the lung usually results in the coughing up of blood. Medical help is needed for internal bleeding.

Treatment:

Raise the injured part with a clean cloth (or your cleaned hand if there is no cloth) press directly on wound. Keeping pressing untill bleeding stops. This may take 15 main or even and hour or more.

If the bleeding can't be controlled by pressing on the wound and if the person is losing a lot of blood, do the following:

- Keep pressing on wound
- Keep the wounded part as high as possible
- Tie a folded cloth or wide belt around the arm or leg as close to the wound as possible, between the wound and the body. Tighten enough to control the bleeding
- Never use thin rope, string or wire

How to Stop Nose Bleeding: (Epistaxsis)

- Sit quietly
- Pinch the nose firmly for 10 minutes or untill the bleeding has stopped. If this does not control the bleeding then;

- Then pack the nostril with a load of cotton, leaving part of it outside the nose
- Then pinch the nose firmly again. Don't let go for 10 minutes or more

Let the cotton in place for few hours after the bleeding stops then take out very carefully. If a person's nose bleeds oftenly, smear a little vaseline inside, the nostrils twice a day. Eating oranges, tomatoes, and other fruits with Vitamin C may help to strengthen the veins so that the nose bleeds less. In older persons especially bleeding may come from back part of the nose and can't be stopped by pinching it. In this case, have the person hold a cork, corn cob or other similar objects between his teeth and leaning forward, sit quietly and try not to swallow untill the bleeding stops. (The cork helps keep the patient from swallowing, and that gives the blood a chance to clot).

SESSION — 17

COMMUNICATION AT CHILD LEVEL:

Unless people understand the meaning or significance of what we are trying to say, they are not in a position to offer cooperation. A person's or institution's or a programmer's success depends in great measure upon ability to work with people, to get ideas accross to receive suggestions, and to attain an informed and in informative group.

In brief, we can say that communicating deals with the art of developing and attaining understanding.

Communicating is one of the most important facilitators for any activities. Without it facts, ideas, and experiences cannot be exchanged. Any person moves his ideas and information from him or her mind to other minds.

The effectiveness of this transition of what the person knows, thinks and feels, determines and conditions managerial accomplishments. The fact is that in everyday living the mere presence of another person exchanges communication.

It is a universal human propensity and as some aptly state "you can not communicate". Understanding is the target in communicating and this emphasised the need for knowing the subject, being aware or finding out what the recipient knows about it, and anticipating questions and answers. A good check upon yourself when communicating is to ask. Have I left anything out that will contribute to a better mutual understanding ?

Help in answering this question is provided by remembering that communication is highly affected by the human element. The person who is responsible for communicating anything for a specific purpose must know that many factors influence people and takes these factors into account when interacting with them.

Communication is essentially a human transaction and the influence and importance of human behaviour confront any person who wants to communicate with another. Being sensitive to the other person's needs and feelings represents an important part of the communication effort.

The simple truth is that communication is difficult between two persons who do not respect or like one another. The need is ever present to communicate effectively, each such opportunity represents a chance to improve managerial competency. Specifically, communication enables the person (Manager) to obtain data for decision making, to assist in identifying problems, to know what actions are needed. Other know the manager primarily by what the manager is able to communicate to them.

Actually nothing happens in any organization until somebody communicates. Communication is a means, not an end. It makes possible the management process and serves as the lubricant for its smooth operation.

Communication helps managerial planning to be performed effectively, managerial organizating to be carried out effectively, managerial actuating to be followed effectively and managerial controlling to be applied effectively. Management is inclusive of communication, not communication of management.

Successful communication is the result of and not the cause of competent management. Conceivably one might be an excellent communicator but a poor manager. However a competent manager is nearby always a good communicator. Actually communication should never be thought of as an independent activity. It is an essential ingredient of almost everything a manager does.

From time to time what is assumed to be a problem in poor communication is actually a case of inept management. Excellent communicative efforts and the use of various devices and gimmicles will fall short of expectancy and may result in total failure if the management is ineffective. Communicating poor plans or utilizing a badly conceived organization structure, for example, are not corrected solely by astute and sophisticated communicating.

Classification of Comunication

There are five types of managerial communication. First is the formal communication which follows the chain of command of the formal organization. For any such communication the path of transmission is prescribed, the formal designated, and official sanction is provided. Second is the informal communication, commonly referred to as the grapevine. Most of the persons use it to supplement formal communication. They do this by finding out how the informal operates within this particular organization, identifying its major connections, and providing constructive information for it to handle. The grapevine can be very effective. Third is non-formal communication. It exists due to unintended conditions of the formal organization that cause unanticipated behaviour to take place. That is, the formal organization itself tends to generate unanticipated behaviour. Non-formal communication is effective, nearby always exists in a large group working together, and tends to be continuous and permanent.

Fourth is the technical communication which is employed by people working in the same area. Representative is the communication among people working with the computer. This type of communication is specialized, effective and somewhat limited. Fifth and last is procedural and rules communication. Such communication is commonly set forth as a manual of the particular organization. It informs about specific policies and rules and when they are applicable. Formal communication channels are not utilized. While somewhat rigid, such communication does contribute to efficiency. Rules, for example, are specific and authoritative guides for action, making it unnecessary for a manager to decide each issue each time it happens. Rules require little or no interpretation and cover numerous situations.

Process of Communication:

The first consideration in communication is the determination of its exact purpose in terms of receiver response. This requires something. For example, is the response intended to be used to help reach a decision, persuade the recipient to a new point of view, or build a favourable attitude toward a given concept ! Next, the communication should be planned with stated purpose in mind and in a formal believed effective to get understanding an honest response from the receiver. To illustrate, if the communication is to inform about a forthcoming meeting, certain data should be included and the message put in a given format. However, if the purpose is to build goodwill, the communication must be planned with this purpose in mind and certain data

included. In this case the format may be far different last, prepation of the communication should include provision to receive an effective expression by the receiver. The better the understanding of the receiver's thoughts and behaviour by the sender of the communication, the more effective the presentation can be.

A communication is adapted to the needs and interests of the receiver in order to reach one and to cause one to react in a manner that accomplishes the purpose of the sender.

In In comunicating there is always a giver, a message, and a receiver. A condition or event stimulates the giver and one becomes aware of its existence. Out of this, comes the need to transmit an idea or feeling about this event to someone. Wanting to share an idea provides the need for communicating. To do so one must decide what to communicate that will accomplish the purpose. Accordingly one arranges words and symbols in some meaningful sequence keeping in mind that one seeks a favourable response from the receiver. The message is then transmitted to the receiver who perceives the words or symbols and translates them into accustomed patterns. The meaning of the message is thus obtained and hopefully the receiver response. To do so, the receiver selects a reply message to satisfy his or her desire, arranges it in waht one believes is an effective format and transmits it to the giver. In return this reply stimulates the initial giver and others to have responses. Thus, the process of communicating continues, each time a giver sends a message the receiver or another person may respond by further communicating ideas and facts.

This leads to the observation that in much communicating the process followed is two way, meaning that to obtain the thought or idea being conveyed, when one speaks, another listens, or when one writes another reads. However, communication itself may be multiway depending upon the type of communication being used. To reiterate, a manager tells, informs, and requests, but for communication to be effective, one must also listen, ask, read, reply, and interpret. When communication moves freely in both directions, greater exchange of ideas and concepts is non and the way is open for greater understanding.

Mutual acceptance and a willingness to receive or transmit must be present. In fact this back and forth exchange of ideas is implied by the, "com" (meaning" with) at the start of the word communication. It is an error for a manager to assume that the job of communicating is to hand it out, the other person is supposed to do all the listening and reading.

This interaction of communication has been called the communication equation, which is as follows:

Giver		Receiver
1) Stimulus plus		4) Perception plus
2) Interpretation plus	(equals)	5) Interpretation plus
3) Behaviour		6) Behaviour

The giver has a stimulus that brings pressure on that person to try to influence the receiver. Next, the giver must interpret this fact and third, when the interpretation is completed, the giver expresses the interpreation by talking. As a result, the receiver perceives the communication. This is step 4 and includes the receiver hearing or receiving the message. It covers that person's apprehension of the information being transmitted. Fifth is the receiver's interpretation of the message. This is influenced by many different factors. Sixth and last is the reaction of the receiver.

SOME GUIDELINES FOR PLANNING PARTICIPATORY ACTIVITIES:

If you want to suceed, you need to

Share power	Set a brief, clear task rather than lecture or ask question
Broaden the base of participation	Use hand on, multi-sensory materials rather than rely only on verbal communication
Equalise status	Create an informal, relaxed climate
Drawout, talents leadership, manual respect	Choose a growth - producing activity
Ensure relevance	Evoke feelings, beliefs, needs, doubts, perceptions, aspirations

Enhance personal confidence self-esteem skills resourcefulness

Encourage creativity, analysis, planning

Decnetralise decisions - making

Develop capability for practical action

Where a "participation" Real Community Participation ?

There have been many efforts at community participation. Some work, some do not. The following cases from the water supply is sanitation sector illustrate that community participation may be more complex than we think.

- The "cheap labour" concept of participation
- The "cost sharing" concept of participation
- The "contractual obligation" concept
- The "community decision making" concept

Some constraints on participation

- Diffidence in the presence of authority
- Fear of speaking up in group meetings
- Low self-esteem

- Distrust of the motives of those in power
- Reluctance of take risks
- Fear of economic consequences or social loss of face
- Fear of criticism for overstepping customary roles
- Factional differences
- A sense of powerlessness or fatalism
- Lack of experience in working with groups
- Lack of skills in planning and problem solving

The learner-centred design (LCD) criteria

The purpose of the LCD criteria is to determine if a learning adivity a the community level can fully involve adult learners. Criteria are listed below as a set of questions on the left and as a set of ches on the right. You may use either one.

Learner-Centred Design Criteria Questions	LCD clues: Did the Activity include Climates
Was it enjoyable ?	Enjoyable
Did it involve sharing of Experiences ?	Experience sharing

Was it a hands-on activity ?	Hands-on Activity
Was it a multi-sensory experience ?	Multi-sensory Experience
Did it require use of creativity and imagination ?	Creative imagination
Did it involve analysis	Analysis
Did it involve problems solving ?	Problem solving
Did participants have to make their own decisions ?	Decision making
Did it require assessment of alternative solutions ?	Solution finding
Were participants engaged in planning	Planning
Did they assume different roles & responsibilities ?	Assumption of roles and Responsibilities
Did the group do evaluation	Evaluation
Did activity require clarification of concepts ?	Learning from experience conceptualizing

reduction but cost recovery. They advocate at least token contribution by community members in cash or in kind towards maintenance. People's willingness to invest a part of their meagre resources in maintaining the system (e.g. to pay the local mechanic) is taken as an indication that they value the service and are therefore committed to keeping it in good working order.

Other believe that agreements to maintain a system may not in themselves be a reliable indicator of local commitment. For example, if average community members and, in particular, women havenot been involved in decision concerning the system, they may revert to their old water sources when the pump breaks down rather than contribute towards the cost of repair.

"Constructual Obligation" Concept

From another standpoint, neither of the above concepts of community participation is considered adequate to prevent large-scale project neglect, misue or abuse of installed water system.

Instead of focussing primarily on the cost factor, attempts are made to establish at least a minimal local infrastructure to manage and maintain the system. On the assumption that this infrastructure will be able to generate and sustain local support, project designers have concentrated on three of its elements. Local leadership, local committees and locally recruited maintenance volunteers. The assumptions are these.

- Winning over local leaders will help legitimise the project

1. Cheap Labour Concept

In some Water & Sanitation projects, the community is considered to have participated when it provides free, unskilled labour for construction and donates raw materials in the spirit of self-help.

The role assigned to villagers is to carry pipes, dig trenches, and perform other unskilled construction tasks. The thinking part (surveying, planning, decision, etc) is done entirely by engineers and other technically trained personnel. The one benefit derived from this arrangement is obviously the lowering of costs.

Some believe that labour contributions increase the people's identification with the system being built. The assumptions is that if they have built a system with their own unpaid labour, they will take pride in it and want to maintain it in good order.

Other contest this assumption. They point out that pride of ownership depends also on what the people's other priorities might be. If the construction project is not a priority for the average community member, labour may be contributed under duress, not voluntarily. If so, then interest in using and sustaining the facility may die after a while.

The Cost Sharing Concept:

In the eyes of other project managers, the key issue is not just cost

- Water committees will be able to promote, manage and monitor local contributions and water usage
- Through training of volunteers mechanics, pump minder or other local aides, technology can be transferred to the community

To make these requirement more formal and binding a contract is often drawn up. The contract spells out in details what roles and responsibilities apply to each partner in the project (e.g. the government and the community). The community has the option to either accept or reject the terms of the contract or it may even negotiate some changes through the formal power structure of the village.

Here we are interested in what behaviour is shown such as the expressions made, shaking of head, nodding approval, or stating that agreement is the reply.

Human Behaviour and Communication

Of all variables affecting communication, human behaviour is probably the most important. Communication is between persons and is subjected to all the influences that condition human behaviour.

If some body doesn't trust or respect you or your viewpoint, it's easy for that person to be distracted by the dislike or distrust. As a result, that person tends not to hear, read, or believe anything you communicate.

Although we will include a number of considerations in this discussion, they are suggestive only and should not be considered as complete.

Foremost is the openness existing in the relationship between the persons communicating. Is the environment one of dictation or that of a participative means ? Simple, basic honesty is vital in any communication situation, but beyond thiscandid disclosure of personal feelings, willingness to express contrary opinions, and frankness in evaluating the efforts of fellow employees are likewise significant. When openness does not exisit, a person may filter a communication if one feels it will harm one's chances for promotion or in the case of bad news upset one's superior. As a result information is commonly distorted as it ascords from the bottom to the top of an organization. Employees tend to shape their behaviour to need satisfying rewards. It is not uncommon for subordinates to refrain from communicating information that is potentially threatening to them or their supervisors.

Likewise, a communication issued at the top management level may be considerably altered by the time it reaches the bottom level. Limited study shows that some 75% of a communication can be lost in its downward flow from top to bottom of an organization through five levels.

An other consideration is the degree of motivation by either the giver or the receiver. When communicating, people have various motives to persuade to tell, to entertain and to reinforce ideas. The enthusiasm displayed and the interest shown definitely condition the communication. When it is planned

to appeal to the assumed motives of the participant, it usually is more effective. There is also the consideration of a person behaving based on either or thinking. Early in life we learn to use so-called polar terms an near/far, objective/subjective, black/white, and we think and speak in this way. Actually most things don't conform to these convenient extremes. And 64 taking the position of either or, a person commits oneself to a position where compromising or viewing a situation correctly is not feasible and places rigidities in communication.

"Illness" orientation is another human behaviour consideration. It is the conveyance of an impression of tatality.

For example, all car dealers are dishonest. You never listen to me. Such all-inclusive statements are not seldom correct, but they block the thought processes that are needed to make communication successful. It is better to use relative values when you use evaluation terms i.e. "As I see it ....." or "it appears that ....." such action aids communication. A fifth consideration is making and acting on unjustified assumptions. Everyone makes assumptions about a working environment and the people in it. But when a high or a low level assumption is made without checking the facts, trouble and communication breakdown can take place. It is well to be alert to the assumptions made and the reader should not assume that the receiver understands what one has been told. That assumption is one of the biggest causes of communication failure. Mutual understanding must not be taken for granted.

Snap reactions are another considerations when the receiver's behaviour is such that one feels little will be gained by listening or reading carefully, the communication is almost certain to be ineffective.

The possibility that the giver has a new idea, fact or point of view doesb't occur to the receiver. Frequently this condition exists in communication between two persons in conflict or when one person is short tempered.

Some times this type of behaviour is called "signal reaction" since the person acts as though triggered by a signal from someone else. Fear is another consideration and plays an important part in communication when emotionally loaded words like failure, death, strike, liar and defeat are used. Fear can affect the translation of information. When communication is expressed under tension or nerviousness its effectiveness can be changed considerably, usually disadvantageously, yet in some instances, advantageously, by increasing mental and physical energy and alertness.

Last, but no means least, is the behaviour exemplied by an un-willingness to listen or to read. One must listen or read so one knows what is transmitted. Many members involved in communication process spend one half of their time listening or reading. One may learn a great deal by these means. The problem is this, are retain only a small portion of what we heard or need, and that for but a brief time. For example, estimates are that immediately after listening, a person members only one half of what was heard, and after two weeks, remembers only one fourth of it. This explained, in

part, by the fact that the brain functions much faster than the average of 1000 words per minute of a speaker. As a result in the mind wonders, and gets off the subject of the communication. Many try to guess what is going to be said next, evaluate what has been said, or direct their attention to some physical attribute of the giver and pay no attention to what is said. In addition, too many communications contain too many words. The receiver loses interest because of the mere quantity. And likewise, to many messages harass a person; the listnership and readership pace becomes irksome.

Language and Communications

Language can be thought of as a set of symbols for conveying ideas from one person to another. It results from human beings living together. As the need to communicate arose, language was developed. A variety of symbols are used including colours, signs, emblems, characters, noise, numbers and alphabetical letters. Normally, in the selection of symbols the user tries to follow the predominant custom for communicating within the given field and keeps in mind what the selected symbols will mean to the receiver.

Keeping in view the very concept of communication it is important for the teachers to provide proper programmes in hygiene education so that they can be used a smotivators and implementors of this programme i.e. school sanitation.

For this objective teachers should plan what type of communication would be more effective and practical according to the practices and believes of that particular area in which they are working.

It is advisable that they should use both formal and informal means of communication so that they can prepare materials for better understanding for the children. For example they can plan a programme to communicate school sanitation and the role of students, they must keep in mind the general behaviour of the children and their attitude towards change. Than language and symbols or words which are going to be used for communication then the time and technical aspects of your message.

For further information, please contact :

UNICEF

Islamabad : **Public Affairs, Communication & Information Service**
12-D-East, Blue Area
P.O. Box 1063, Islamabad
Tel : 885142-46, 821254, 825393

Karachi : 24, Old Clifton Road
P.O. Box 13845, Karachi
Tel : 531590, 532567, 535916-18

Lahore : 8-A, Ali Block
New Garden Town
Lahore
Tel : 863227, 863142

Peshawar : 4844, Warsak Road
P.O. Box 476, Peshawar
Tel : 78524, 78424, 79284

Quetta : 2, Lytton Road
P.O. Box 284, Quetta
Tel : 40897, 40856, 40669