

# Integrated School Health

## Teaching Manual for Health and other Extension Workers



 **PCD** | Imperial College  
The Partnership for  
Child Development London



The following document has been developed by the Partnership for Child Development in collaboration with the Government of Kenya, Kenya Medical Research Institute and the International Rescue Committee, the UN's High Commissioner for Refugees and the World Food Programme.

# Introduction

The aim of this manual is to provide health workers in Kakuma Refugee Camp with materials and information to aid in their activities in messaging and teaching of the communities towards nutrition disorders, infections and diseases that affect residents in the camp and residents around Kakuma Refugee camp today. The manual forms part of an integrated approach to health in the communities, incorporating sanitation, health and nutrition messaging with the aim to bring about improvements to community health in the camp. Based on information gained through a comprehensive needs assessment, the manual provides targeted information that residents can use to take action to protect themselves, and their family members, against disease and enhance their own nutrition intake.

The manual aims to provide background knowledge on themes or conditions, as well as practical information on how to protect from diseases, how to maximize nutrition, and when and how to seek treatment for conditions. **Nutrition** has important impacts on maternal and child health, affecting physical and cognitive developmental growth, as well as protection against diseases. Messaging around **hygiene and sanitation** provides individuals with knowledge with which to change behaviours and protect themselves from infection. Finally, in providing information on **disease** and preventative actions against to take, as well as when to seek treatment will help community members to take their health into their own hands, and give them the best opportunities for leading a healthy and happy life.

# Outline and structure

This manual comprises messages on four key issues which can help community health workers in providing health and nutrition messages to the residents of Kakuma. Each section introduces the topic, giving a description of the condition or disease, and ways to protect oneself, and prevent the household or the family from getting sick, as well as to prevent onward transmission.

The final section discusses cross-cutting issues that can help prevent many different types of diseases and sickness. The topics below have activities which can help involve the community members and aid in their understanding of the risks of the disease, as well as what they can do to protect themselves from disease or poor nutrition.

## Topics:

- 1. Nutrition Education** – Here the importance of eating healthily is discussed, where the importance of a balanced and diverse diet is outlined, alongside awareness and consumption of fortified foods in Turkana County.
- 2. SAFE from trachoma** – This section focuses on trachoma, a bacterial infection which is commonly found in Kakuma Camp. Measures are outlined on how to avoid this infection through the **SAFE** Strategy (**S**urgery, **A**ntibiotics, **F**acial Cleanliness, and **E**nvironmental Improvement).
- 3. Malaria** – A sometimes deadly disease spread by mosquito vectors. This section introduces the parasite, and explains how it is spread, what the symptoms are, and how to find treatment, as well as ways to provide protection from infection.
- 4. Stop Worms!** – This section focuses on intestinal parasitic worms, what they do, how they are spread, what to do to protect from catching worms, and what to do if they are infected.
- 5. Water Sanitation and Hygiene (WASH)** – This section discusses the importance of regular hand and face washing to prevent disease in the community. What happens in the case of poor WASH and what to do if an individual is sick. It also stresses the importance of using a latrine and cleaning hands after visiting latrines and preparing food.

# 1: Nutrition Education

Poor nutrition happens when individuals do not get enough energy (calories), proteins, carbohydrates, fats, vitamins and minerals from the food they eat. These nutrients are required by the body to function well. In particular, poor nutrition can affect a child's growth and development and can cause stunting and wasting, while at the same time reducing the child's abilities to learn. Some nutritional deficiencies, when acquired while young (under 5) are hard to reverse. This is why it is important to prepare nourishing food for the family and small children, and make sure that children get enough to eat.

In addition, even if well nourished, if an individual is hungry on any particular day, it can become difficult to concentrate and perform complex tasks, it is therefore important that all the family eats a regular and nutritious meal.

Enhancing community members knowledge on what are the right foods to regularly eat can have a significant impact on their attitudes and behaviour towards eating a healthy diet.

## Topics:

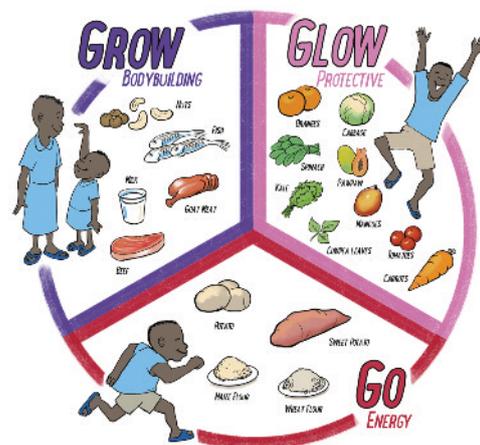
1. The importance of a balanced diet: 'GLOW GROW and GO' message and what different types of food are
2. How we can improve our diets
3. Micronutrient deficiencies
4. Fortified foods and how to identify them



Teaching Session 1: A balanced diet

Meals should be rich in what has become known as **GO, GROW and GLOW** foods – 'The three Gs'. These three food groups are outlined here.

## HEALTHY FOOD



**1. What is a balanced diet and why is it important? A balanced diet is a meal with three different types of food; body building foods, energy giving foods and protective foods.**

These three food groups are best remembered as GO, GROW and GLOW foods – 'The three Gs'.

- **GO Foods are Energy-giving foods** (carbohydrates like cereals and root crops)

and fats). They give us the fuel we need to work harder and longer. If we do not eat enough energy-giving foods, we often feel tired and it can become harder to do our everyday tasks.

- **GROW Foods are Body-building foods** (proteins like meat, beans and dairy). They make us grow, look and feel healthy. If we do not eat enough body-building foods, children's growth is likely to be stunted.
- **GLOW Foods are Protective foods full of vitamins and minerals** (fruit and vegetables). They help make our mind and body strong and develop well. They help protect us from diseases and help us recover when we are sick. If we do not eat enough protective foods we can often fall sick and will recover slowly.

## 2. How can we improve our diets and the diets of our families?

To become healthy and help family members become healthy too, encourage community members, especially the main household food preparer to:

- Prepare a variety of foods from the GO, GROW and GLOW groups.
- Increase consumption of vitamins and minerals by eating brightly coloured fruits and vegetables. Orange and, yellow coloured fruits, and also dark green leafy vegetables are the most nutritious.
- Grow a vegetable garden so you can grow lots of fruits and vegetables and eat them fresh.
- Encourage mothers to breastfeed their babies until they are 6 months old. Breastmilk contains all the nutrients a baby needs to grow big and strong, as well as protective ingredients from the mother to protect against diseases. Stopping breastfeeding early can lead to less growth and put the baby at risk of diseases.

- Eat animal products such as beef, goat meat, fish and chicken which are rich in iron and can prevent anaemia. When you have anaemia, there is less oxygen carried around your body in blood. This makes you tired, irritable, leaves you with shortness of breath and can cause fainting.
- Do not overcook vegetables, this leads to a loss in valuable nutrients into the water, thus wasting them. Try to slightly undercook the vegetables, so the nutrients are for you!

## 3. Food fortification, micronutrients and their deficiencies

Some vitamins and minerals are required by the body in small quantities, therefore they are known as micronutrients. Lack of these **micronutrients** leads to micronutrient deficiencies, and can be common among children. In this session, micronutrients of public health concern are outlined, their sources and functions in the body, deficiencies and how to address them through **food fortification**.

## 4. Identify micronutrients, their functions and deficiencies

A micronutrient is an element in food (a nutrient), which is required by humans and other living things throughout life in very small quantities. Micronutrients support a whole range of functions essential for life. Vitamins and minerals of public health interest are vitamin A, iodine, zinc and iron.

Not getting enough of these micronutrients in daily life is known as a **deficiency**. Deficiencies of these micronutrients occur when:

- The soil in a particular region lacks certain nutrients
- The custom diet of the region has inadequate nutrients
- An underlying infection or disease can lead to micronutrient deficiencies

Some of the consequences outlined in the table below:

Type of Micronutrient	Sources	Function in the body
<b>Vitamin A</b>	Milk, eggs, liver, dark green leafy vegetables such as spinach, kale and orange fruits and vegetables e.g. carrots, pumpkins, sweet potatoes, pawpaw	<ul style="list-style-type: none"> <li>• Important for healthy eyes and good vision. It also makes skin strong and healthy. It prevents problems like diarrhoea, measles, and malnutrition.</li> <li>• Lack of vitamin A leads to poor vision and night blindness.</li> </ul>
<b>Iodine</b>	Iodized salt, cow's milk, eggs	<ul style="list-style-type: none"> <li>• Helps control body processes like breathing and growing muscles. It is very important for the development and strength of the brain and nerves.</li> <li>• Iodine is found in food grown in soil that is rich in iodine. Soil can lack iodine in some inland or mountainous areas.</li> <li>• Lack of iodine leads to goitre (a lump below the jaw on the throat).</li> <li>• It can be dangerous in pregnant women leading to low birthweight, miscarriage, or babies with disabilities.</li> </ul>
<b>Iron</b>	Red meat, fish, liver beans, spinach, eggs, dark green leafy vegetables	<ul style="list-style-type: none"> <li>• It helps keep our blood healthy.</li> <li>• If enough is not consumed the result can be anaemia which leads to tiredness, lack of desire to play or go to school, dizziness and headaches.</li> </ul>
<b>Zinc</b>	Meat, chicken, fish, milk, whole cereals, nuts	<ul style="list-style-type: none"> <li>• Helps keep the body healthy and promotes growth of children and adolescents.</li> <li>• Lack of zinc leads to stunted growth and poor development of children and diseases such as diarrhoea.</li> </ul>

Micronutrient deficiencies can be hard to see sometimes. To prevent them it is important to increase consumption of foods that are rich in these micronutrients and to eat a balanced diet.

## 5. Discuss the importance of food fortification

In order to prevent micronutrient deficiencies in families, certain foods can be fortified – where vitamins and minerals are added to staple foods to improve their nutritional content.

Ask the community members if they are aware of any fortified foods in the community.

**Activity:** talk through common food types with the household member, and ask about what they have that may be fortified, or could be fortified.

Explain that all fortified foods in Kenya have a mark known as the fortification logo. **Show the logo.** Ask if the household has any food items containing this logo.



## 6. How to ensure you eat fortified foods

The Government of Kenya has made it mandatory to fortify a certain amount of the foods we buy.

These include:

- Wheat Flour – fortified with Zinc and Iron
- Dry Milled Maize products – fortifies with Zinc and Iron
- Salt – fortified with Iodine
- Vegetable Fats and Oils – fortified with vitamin A



*Explain that* we should try and buy foods that have been fortified with vitamins and minerals as much as possible for better health, and we should check the packaging on flours, salt, sugar, fats and oils for the fortified logo.

## 2: SAFE from Trachoma

### Background

Trachoma is a blinding bacterial infection spread by contaminated or dirty hands, cloths and flies. Early on in infection, trachoma can be symptomless. Sometimes, however, infection leads to an irritated, red eye and discharge. Other symptoms include eye pain and sensitivity to light. The bacteria is mostly spread between young children, and late stages of the disease and blindness occurs later in life after a lifetime of infection.

Trachoma affects poor communities in situations with poor hygiene, crowding and insufficient access to water. People living in dry and dusty areas are particularly prone to trachoma. Protection against infection with trachoma is associated with **washing the face** (which reduces nasal and eye secretions – potential reservoirs of infection as well as attractants for transmitting flies), **good hygiene practices**, and **access to water**.

Blinding trachoma can be prevented, particularly when good hygiene is practiced from a young age. It can be controlled in providing better access to safe water sources, soap and encouraging better face and hand washing practices. Studies suggest that reducing open defecation is potentially important for reducing the transmission of both diarrhoea and trachoma. The strategy by WHO is to eliminate blinding trachoma by 2020 using a strategy known as **SAFE** (**S**urgery, **A**ntibiotics, **F**acial cleanliness, and **E**nvironmental improvement).

It is important for people at risk of infection to understand how to protect themselves from trachoma infection now, and into the future, and what to do if they have trachoma or blinding trachoma. It is important to encourage community members who have trachoma to seek medical attention in the form of treatment or surgery before the effects of blinding trachoma take place.

### Concept

The following information is aimed at providing community members with the knowledge to protect themselves against trachoma infection. The following section provides a summary of key health messages concerning hygiene behaviour that will help break the cycle of infection.

#### Topics:

1. What is trachoma?
2. How is it spread?
3. How can we stop trachoma?
4. How to we treat trachoma and blinding trachoma?

#### 1. What is trachoma?

Trachoma is an infection of the eyes, with germs (bacteria). It can eventually lead to blindness as it causes the eyelashes to scratch the surface of the eye – in fact it is the main cause of blindness that might otherwise be prevented.



## 2. How is trachoma spread?

Trachoma is caused by germs or bacteria, it can be passed from one person to another through close contact of infected materials.

Trachoma is mainly spread when something

touches an infected eye and then later touches an uninfected eye, for example:

- Towels, handkerchiefs and tissues
- Fingers
- Flies

HOW IS IT SPREAD?

OPEN  
DEFAECATION



Not using a latrine encourages flies that spread trachoma

FLIES



DIRTY HANDS  
AND FACES



DIRTY  
TOWELS



Trachoma spreads when your faces, hands and towels are dirty

## 3. How can we stop trachoma?

Trachoma transmission can be stopped through different types of action. We can remember these as **SAFE**.

**S is for Surgery:** People who have had trachoma for a very long time may need surgery to correct the damage done to their eyes.

**A is for Antibiotics:** People with eyes infected with the germs should take medicine to kill the germs.

**F is for Facial cleanliness:** Keeping your face clean keeps flies away, and stops flies carrying the germs to your eyes.

**E is for Environmental improvement:** By keeping your school and home clean, and using latrines you can reduce the flies around you and therefore lower your chances of catching the germs causing trachoma.



**Surgery**



**Antibiotics**



**Facial  
cleanliness**



**Environmental  
cleanliness**

Surgery and medicine are needed in the more extreme cases, but we can all act now to protect against trachoma, and avoid the need for these! Keeping your face as well as your home and school clean will lower your chance of catching trachoma.

**Activity:** At the household level, and with a member, or several members of the household, check for things or activities that may be a risk to trachoma transmission, and things that may be protective.

These could include: Tidy house, home, kitchen. Burying faeces or using a latrine. Washing your face and helping small children wash theirs.

As you go around the household point out good and bad things for the community members. Explain what the risks are, (for example of flies on childrens faces) and how to prevent them (in this example: washing the face and keeping household environment tidy).

# 3: Malaria

## Background

Malaria is a parasitic disease that is spread by the bite of an infected mosquito, known as a vector. It affects millions of people world-wide, and poses a particular risk to children as well as pregnant women. The parasite is known as *Plasmodium* and is a very small parasite that can live inside our blood cells. Infected mosquitoes can spread the disease through their biting – or taking a ‘blood meal’. People infected with malaria can get very sick, with high fevers, diarrhoea, vomiting, headache or chills. They feel tired due to loss of the blood cells as the *Plasmodium* parasite reproduces and multiplies in the body. In children, as well as in pregnant women, malaria can be very severe. Treatment must be found quickly in the form of anti-malarials. People can protect themselves by sleeping under bednets as mosquitoes that spread malaria, known as *Anopheles*, mostly bite at night. Insecticide treating bednets or spraying indoor walls with insecticide can help kill the mosquito before it can bite you with a dangerous bite.

## Concept

The following agenda is aimed at informing community members of the risks of malaria, providing them with the knowledge to protect themselves and their families against malaria, and detecting the signs and symptoms of malaria for early treatment.

### Topics:

1. What is malaria?
2. How is it spread?
3. Who is at risk?
4. How is it treated?
5. What is antimalarial resistance?
6. How can we prevent infection and onward spread of malaria?

## 1. What is malaria?

Malaria is a killer disease. It makes people weak and unable to work or study properly. It is found all over the world, and is spread by the bite of a mosquito. If you catch malaria you may feel tired, have a fever, headache or diarrhoea. The malarial parasite is known as *Plasmodium* and is very small, much smaller than a mosquito. Once inside your body it replicates and multiplies, killing your blood cells as it goes. Some people with malaria can suffer from **anaemia** due to this loss of blood cells.

## 2. How is malaria spread?

Malaria is spread through the bite of an infected mosquito. Mosquitos called *Anopheles* are responsible. They live in almost every country around the world in areas where the temperature and humidity is right. Sometimes this means that malaria is **seasonal**. It only happens in the rainy season. It is the female mosquito that bites, as she needs the blood in order to lay eggs and reproduce. The female needs water in which to lay her eggs. It is important to minimize small pools of water, and cover water containers around your living areas. An uninfected mosquito can become infected after biting an infected person.

## 3. Who is at risk of malaria?

Everyone who is bitten by an infected mosquito is at risk, but small children, babies and pregnant women are in particular danger of falling sick, and maybe dying from malaria. It is important that if you think someone in your family has malaria that you find treatment for them.

Some people can develop resistance to malaria after years of exposure, which is why small children and babies, as well as people who have recently arrived in a malarial area are most at risk.

#### 4. How is malaria treated?

If you suspect you or someone you know has malaria, it is important that you seek medical treatment at a **hospital** or **health centre**. Treatment is with antimalarials. If the infection is left untreated, it can become very dangerous and sometimes leads to death.

#### 5. What is anti-malarial resistance?

This is where the malaria parasite, *Plasmodium*, over time, stops responding to treatment, becoming immune themselves. The sick individual will not get better, even after taking anti-malarial tablets. This is very dangerous as then the treatment will no longer cure people who are sick. This is happening more and more around the world, and is often due to poor quality of drugs, or not taking the entire course of treatment. It is therefore important to make sure the drugs are good quality and from a health clinic. It is also important to make sure whoever is taking treatment takes **all** the pills **at the right** time, and does not stop when they start to feel better.

It is very important to make sure that the drugs that work stay working!

#### 6. How can you prevent yourself and others from catching malaria?

Sleeping under a bednet can prevent mosquitoes from biting, as malaria mosquitoes, *Anopheles*, mostly bite at night.

This is very important for any small children in your family, as well as pregnant women. It is also important to sleep under a bed net if you are suffering from malaria, as it prevents the mosquitoes from getting infected. Bednets should completely cover the sleeping person or persons and the bednet should be tucked in under the mattress. Any holes or tears that are made should be repaired immediately, mosquitoes will find a way in! They will also bite through the net if you sleep too close to the net.

Wearing clothes that cover the arms and legs after dusk can protect you from mosquito nets. It is important to keep babies and small children protected this way as well.

**Insecticides** are chemicals that can kill, or shorten the lives of mosquitoes (so they can bite less people). Insecticide treated bednets and spraying the insides of rooms with insecticide can therefore help in preventing the mosquito becoming infective and biting you. Insecticides should be reapplied every 6 months – 1 year. If you have a long lasting insecticide treated bednet (LLITN), it should be replaced every 3 years.

*Anopheles* mosquitoes like to breed in water, lakes, ponds and even little pools of water made in potholes and ditches. If possible, make sure that there are no pools of water near to your home, and cover your water containers kept near the home.

**Activity:** Ask the household member if they have a bednet? Ask to see it, and check if it is an Long Lasting Insecticide Treated Net (check for the label). Explain the difference between an LLIN and a bednet that needs re treating once a year (LLIN needs replacing every three years, home treated net will need treating once a year).

If there are holes in the net, explain the problems with having holes in the net, explain how they can be fixed (sewing up, tying a knot). If the holes have been repaired be sure to praise the work.

Show the correct way to sleep under the net (completely covered and with the edges of the net tucked into the mattress).

Ask the household member what they were doing the night before just before bed? Explain the importance of being covered at night, being indoors, and avoiding mosquito bites in mosquito season.

## 4: STOP worms!

### Background

Soil-transmitted helminths (STH) are worm parasites that live in the tummy, or intestines, and are transmitted through soil, hands, and sometimes food which has not been cooked or washed properly and contain eggs of the worm. Infection leads to tiredness, stomach ache and swollen tummy's. In the long term there are effects on school attendance and grades, as well as on a child's nutrition levels and growth and development. For the adult there are issues with productivity and ability to work and perform day to day activities as the worms live in the gut and eat food intended for the infected individual leaving them weak. Children who are infected have poor growth, and sometimes are stunted. Children also have issues in concentrating in school, feeling tired a lot of the time, and sometimes suffer from anemia.

### Concept

The following training agenda is aimed at informing community members of the dangers of parasitic worm infection, and ways in which they can protect themselves and their family members through effective hygiene behaviour and how to break the cycle of infection. The focus of the key health messages are the importance of good sanitation and hygiene practices.

### Topics:

1. What are parasitic worms?
2. How are they spread?
3. How can we stop infection with worms?
4. Echinococcus and how to prevent it

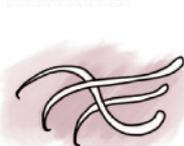
#### 1. What are parasitic worms?

Explain to the household member that parasitic worms live in the stomach or gut, preventing food and nutrients that the children are eating from being absorbed into the body. Infection with worms can make us tired, give us stomach ache and make us feel ill. For children, infection can

prevent them growing big and strong and prevent them from attending school and getting good marks. In adults, as well as children, infection can make it harder to work and perform daily activities.

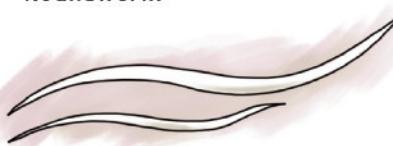
There are three STH infections: hookworm, roundworm, and whipworm.

*Hookworm*



2 cms

*Roundworm*



40 cms

*Whipworm*



4 cms

## 2. How are worm infections spread?

Explain that the worms lay eggs which leave the gut through the faeces, and can infect other people, or the same people, through the skin, or through hands and food which haven't been washed after coming into contact with egg containing faeces.

Hookworm eggs hatch in the faeces, and walking where someone has previously defecated can lead to infection through the foot.

Roundworm and whipworm eggs stick to hands and food from the field. Eating with dirty hands, or putting dirty hands near the mouth, as well as not washing or cooking food before eating can pass on infection.

## 3. How can we stop parasitic worms?

Worms can be prevented in different ways:

1. Always using a latrine
2. Washing hands after using the latrine, after cleaning baby and before eating.
3. Wearing shoes
4. Get deworming treatment once a year

Explain that using a **latrine** prevents other people stepping in the faeces and becoming infected with hookworm, it also keeps faeces away from other people, and hands. Some parasite eggs can last a long time in the environment, which means they can easily be picked up without noticing that you have touched the faeces or stool.

Explain the importance of handwashing: washing your hands with soap after using the latrine cleans them of any sticky eggs, and makes it safe to go play with your friends or to eat. Some worms live in the soil, so you should wash your hands after playing in the soil or gardening.

Explain that it is very important to **always** wash your hands before eating, as you are directly putting things into your mouth – you don't want worm eggs for lunch!

**Wearing shoes** can protect you from hookworms that can live in the soil in fields and around houses for a while. They can attach to your skin and crawl in, before they find their way to your tummy!

Getting **deworming medication** once a year kills the adult worms in your body, and reduces the number of worms there. These drugs are very safe, and you only need one! Go to your health clinic and ask for treatment.

## How do you prevent them?



## 4. Echinococcus and how to prevent it

Echinococcus is another type of worm, that doesn't normally live in people, but in dogs and cows, sheep and goats can also have these parasites. In fact, the usual lifecycle is between dogs and domestic animals, transmitting through the meat of the cows or goats (to the dog) and from the dogs faeces back to the cattle. Sometimes, however, people can get sick from this parasite from accidentally eating the dogs faeces, leading to hydatid disease. This can happen either directly from dirty, unwashed hands, or through drinking water from an open well or lagas without treating it first. It is very difficult to treat this parasite, so it is very important to protect yourself from infection in the first place. Ways to prevent infection with this parasite include:

- always washing your hands before handling food or eating.
- always treating water that is collected from an open water source before drinking it.

# 5: Water, Sanitation and Hygiene

## Background

Inadequate water, poor sanitation and poor hygiene all provide routes for infection via infectious matter, such as faeces. Known as **WASH, Water, Sanitation and Hygiene** is important in disease control for conditions such as diarrhoea, trachoma and parasitic infections.

In particular, access to **safe water** can prevent transmission of 'water-borne' diseases such as diarrhoea and cholera. Diarrhoea is one of the top three killer diseases for children.

In addition, access to **enough water** can prevent transmission of 'water-washed' diseases such as trachoma and some parasitic infections. Transmission of these diseases can occur through **poor hygiene** due to insufficient quantities of water for washing. Improving both the quantity and quality of water can therefore help prevent disease.



**Sanitation measures**, such as increasing the use of latrines can help keep faeces and infectious matter away from people, and prevent flies from breeding. Faeces often harbour parasitic eggs, as well as germs.

Hookworm in particular is found in faeces and can be transmitted through walking through infectious material (faeces) and not washing hands before eating or preparing food.



Improvements in WASH services must also be accompanied by improved **hygiene behaviour**, which is why health education and messaging is so important.

Simply washing hands after using the latrine, and before preparing food can reduce the burden of many of these diseases and their effects.

## Concept

The following training agenda is aimed at informing community members of ways in which they can protect themselves and their family from bacteria and parasite infection through effective hygiene behaviour. The focus of the key health messages are how the cycle of bacteria and parasite infection can be broken through hand washing, good latrine cleanliness and use, and the wearing of shoes.

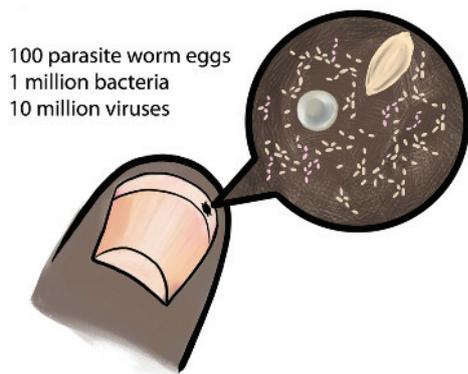
### Topics:

1. Why is keeping hands and faces clean so important?
2. What is diarrhoea and how can we treat it?
3. How can we keep our hands and faces clean?
4. Critical times to perform hand washing
5. Know when and how to treat water before drinking it

### 1. Why is keeping hands and faces clean so important?

Many diseases are caused by germs that spread through dirty hands and environments. These diseases include **parasitic worms, trachoma** and **cholera**.

*Explain to community and household members:* Many other germs are in stool or faeces, and can give you a disease if you happen to eat or drink them by accident. They are very very small, so we can't see them, and it is therefore important to always be careful with our hygiene.



These germs can cause you to be sick (to vomit), and stop your digestion working well, so your faeces becomes a liquid which is known as diarrhoea. These germs include bacteria, which are very small germs, and worms, which start as eggs so small that they cannot be seen, but grow to lengths of around 35cm! One kind of worm (hookworm) can infect you by going through the skin of your foot if you do not wear shoes.

Explain to community members that since these germs are present in faeces it is important to avoid contact with it wherever possible by:

- Using the latrine which means that people won't accidentally touch the germs in the faeces
- Washing your hands means that you won't accidentally eat the germs in the faeces, or pass germs on to other family members
- Keeping the latrine clean and germ-free which means you won't pick up germs when you visit the latrine
- Not going to the toilet or defecating near a water source, as germs can be spread this way and make us sick through drinking the water
- Wearing shoes

Most of these actions are also important to prevent trachoma: keeping yourself, and your home and school clean will remove the flies which spread trachoma.

## 2. What is diarrhoea and how to treat it?

*Ask the community members how can they tell that they have severe diarrhoea?*

**Explain that:** Diarrhoea is often from **eating or drinking** something that has **germs** on it. It can also be caught through dirty, unwashed hands.

Signs of severe diarrhoea include bloody stool or faeces, watery diarrhoea or stool, and if passing more than one loose stool in a day for more than three days.

It leads to **dehydration**. In particular **cholera** is a loose, watery stool, and in young children can quickly lead to severe and life threatening dehydration.

Dehydration is characterized by dry mouth, inelastic skin (the skin on your knuckle it does not bounce back), not urinating often and headaches.

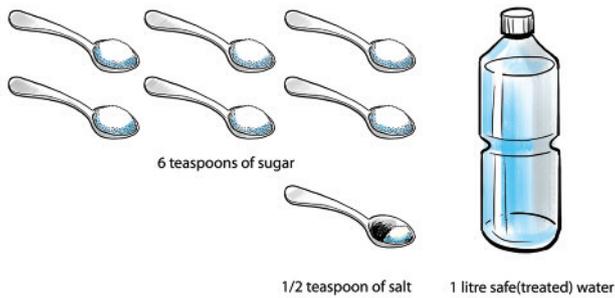
*What to do if someone in the household has diarrhoea?*

**Explain that:** It is important to make sure that the sick individual drinks as much water as possible, and eats as much nutritious food as they can to replace what they are losing in their stool and faeces. As a rule, 1 cup (250ml) of water after each watery or loose stool. The sick person must be given safe water (boiled, bottled, filtered). **Oral Rehydration Therapy** can help in severe cases, and when the person is too sick to eat. ORS is a **sugar-salt solution** that helps the body recharge.

Explain the method that can be used to make ORS at home, write the following on the blackboard and ask the children to recite it:

- 6 teaspoons of sugar
- ½ teaspoon salt
- 1 litre of safe (treated water).

Explain that it is very important to make sure that the quantities are correct, if not it can make the diarrhoea worse.



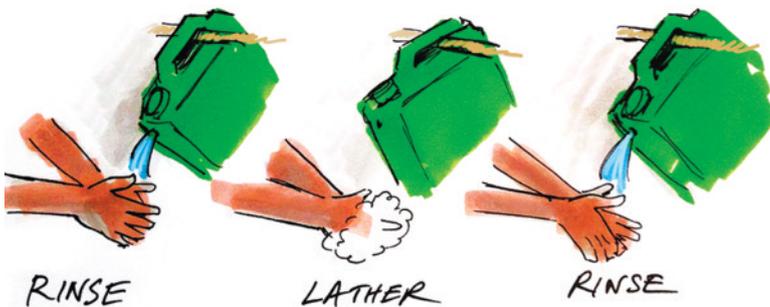
### 3. How should you keep your hands and face clean?

*Explain how to wash hands:*

1. Wet your hands with clean water, for example from a tap or tippy tap
2. Rub soap all over your hands
3. Rinse the soap off with more clean water

If soap is not available, you can use ash instead.

To wash your face, you should do the same, but with soap and water, or just water, on your face.



### 4. When should you wash your face and hands?

- All household members should aim to wash their face every day, to lower their chance of catching trachoma
- You should wash your hands, with either soap or ash, after going to the latrine, to remove any germs that you may have picked up
- You should wash your hands before eating or preparing food, to stop germs getting into the food
- Hands should be washed after changing the baby

- Hands should be washed before breast feeding

### 5. Drinking Clean Water

Water that is obtained from a non-safe water source, such as a stream, or an open well will, or laga require treatment at the household level prior to drinking to make it safe from germs and parasites. Examples of this include:

- **Boiling water:** water should be at a rolling boil for at **least 10 minutes**
- **Treating** with aquatabs, PUR
- **Use of chlorine:** 1/8 of a teaspoonful of bleaching powder for 10 litres of water. Powder should be dry, white and powdery and stored in a closed container. Water and chlorine should be allowed to sit for 30 minutes.
- **Solar disinfection:** Sunlight contains UltraViolet Rays which can destroy or kill germs: Let water sit in direct sunlight in **clear bottles** for at **least 5 hours**



10 mins



30 mins



5 hours







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