Encouraging good hygiene and sanitation

A PILLARS Guide

by Isabel Carter

Partnership In Local LAnguage ResourceS

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Introduction to this PILLARS Guide

This Guide helps communities to consider improving their lifestyle to reduce disease and infection. Promoting effective and low-cost sanitation, encouraging good hygiene and improving access to clean water supplies helps people to live healthier lives. Young children and babies are particularly at risk of infection and disease from poor sanitation, poor hygiene practices and dirty water. At present over 1.7 million children under five years old die each year from diarrhoea (World Health Organisation). Many of these deaths would be prevented if good hygiene was practised.

The Guide helps people to reflect on the particular challenges in their own living situations that make access to effective sanitation and safe water supplies difficult. Low-cost ideas are shared that could be used in most situations, including refugee camps. People are encouraged to discuss and think about beliefs and traditions that may influence personal, household and community hygiene.

In many situations, people are instructed in good hygiene, rather than having the opportunity to make their own decisions regarding sanitation, hygiene and water supplies. This Guide encourages people to take responsibility for their own lives, based on a good understanding of hygiene and how disease is spread. It helps people to make wise decisions regarding access to sanitation, good hygiene and safe water supplies that may have far-reaching impact on the health and lives of their families.

Each topic in this PILLARS Guide is designed to encourage small group discussion in a relaxed and open manner. The guide aims to build people's understanding of the basic facts about good hygiene. It encourages people to respond to the needs of their own community and takes a Christian perspective. Before using the Guide it would be helpful to agree on the appropriate words to use for terms that people often find embarrassing, such as faeces, latrines and urine.

For church groups, the Bible studies at the back of this book should be used as an essential and ongoing part of the process. These Bible studies should be done in small groups, with time for everyone to reflect on and discuss the questions.

Objectives of this guide

- To increase the awareness of religious and community leaders of the need for them to encourage positive attitudes about good hygiene practices and sanitation.
- To help people understand how poor hygiene and inadequate sanitation contributes to disease and ill health.
- To facilitate changes in attitudes and practice towards good hygiene and sanitation.
- To challenge unhelpful practices that lead to the spread of infectious diseases from food and water supplies that have been made dirty by faeces.
- To encourage communities to take responsibility for establishing and managing water supplies and sanitation services.

Anticipated outcomes

- Local leaders have increased awareness of their ability to encourage changes in their community and of the value of organising local people to take action.
- Local people have increased awareness of how water-related diseases, particularly diarrhoea, affect health and spread through poor hygiene.
- Reduced infection and death rates of children under five from diarrhoeal diseases.
- Well-managed water supplies and ongoing maintenance of water pumps.
- Positive change in the attitudes and practices in the use and maintenance of latrines.
- Local people have increased understanding of the importance of hand washing and motivation to put this into practice.
- Improved hygiene promotion.
- Local organisations that promote latrines, public health and safe water improve their working together more effectively at all levels.

Using PILLARS Guides with small groups

Welcome to PILLARS, particularly if this is the first time you have used a PILLARS Guide. Unlike most books, this is not designed to be simply read through. The full benefits and learning from this book will only come through discussing and learning from the content in small groups, using just one topic at a time. Here are some useful ideas to help you get the most out of this Guide.

Who would benefit from this learning?

Ideally any small group of people who meet regularly together. This could be a youth group, church group, women's group, farmer's group or literacy group. Between 6 and 12 people is ideal. In larger groups many people will not join in the discussion so it would be better to divide people into smaller discussion groups. If you are not part of an existing group, invite a small group of friends or colleagues to use the Guide together.

Who should lead our group?

A trained leader is not required. All that is needed is a literate group member who can facilitate discussion. This person, known as a facilitator, should not be someone who likes to provide answers and directions. It should be someone who is interested in hearing other people's views and opinions and who can help keep a balanced discussion going.

What preparation does a facilitator need?

They should read through the whole guide a couple of times so they are familiar with all the topics and Bible studies. They may decide that a couple of topics are not relevant and miss them out. They may want to use the topics in a different order – though their order is carefully planned. They should do the following:

- **INTRODUCE THE TOPIC** so group members see its relevance. How does it relate to their experiences? Would it be helpful to begin with a Bible study? Group Bible studies are available at the back of PILLARS Guides, in *Guide our steps* and in *Footsteps* issues (www.tearfund.org/tilz).
- **SHARE THE INFORMATION**. This can simply be read out; or it can be reworded to help people understand. Another idea would be to ask a few members to prepare a simple role-play that shows the problem or raises key issues.
- **LEAD THE DISCUSSION**. Allow enough time for people to discuss each question fully. Sometimes they may need a little help to start. Remember this is the main way in which learning will take place as people consider how to manage change together.
- **DRAW THE MEETING TO A CONCLUSION**. Summarise the learning and anything that people may do differently as a result of their discussion. Are there any activities or responses the group want to make? If so, agree on how to take these forward.

Facilitation skills

There are several tips that can help people improve their skills as facilitators:

- Be sensitive and listen carefully to what people are saying.
- Draw out the views of all group members, especially those who lack confidence in speaking.
- Don't let the discussion get sidetracked by other issues or personal arguments. If this happens draw it back together again.
- Summarise a lengthy discussion to help people stay focused.
- Use energisers to keep the group relaxed and awake.
- At the end of the discussion time, record any decisions reached or plans made.

If there is one (sometimes more) very dominant person in the group who either does most of the talking or prevents others from expressing different views, you may need to take action. Here are some ideas:

- Discuss your concerns with them and ask for their help in encouraging others to speak.
- Suggest that the individual joins a different group where their skills are more useful.
- Give the individual a role of responsibility during the meeting that ensures they miss most of the discussion, such as making arrangements for practical action.
- Appoint someone to help as an additional facilitator and split the group during discussion.

Tearfund has developed a workbook on facilitation skills. It provides training material for people who plan to use PILLARS Guides in their local communities. It seeks to improve the skills of participants so that they are equipped to lead discussions that encourage the sharing of local knowledge, experience and information. The training uses participatory methods and role-play.

Translating PILLARS

PILLARS Guides are designed so that they can easily be translated into national or local languages. The Guides have so far been produced in over 30 languages around the world. There is a workbook available, which gives guidance for organisations wanting to hold a series of translation workshops, and a CD Rom with all the design files and alternative images.

Before considering translation, check the list of available languages on the tilz website (www.tearfund.org/tilz) under 'Translating PILLARS' to avoid duplication.

Using PILLARS for workshops

Each PILLARS Guide can be used as the basis for a participatory workshop. Each day could begin with a Bible study. Group work discussing different topics could be combined with practical sessions, practice in using role-play to introduce topics, learning about how to translate topics, using the ideas and illustrations for posters or leaflets and a field visit to share learning with a community group.

Glossary of difficult words

chlorine bleach a strong chemical that can be used to make water safe for drinking

cholera a serious disease causing severe diarrhoea with vomiting caused by food and water that is made dirty with faeces. Unless treated it can cause rapid dehydration and death in a few hours

community people living in one local area, often with the same culture and similar interests

defecate to pass faeces from the body

dehydration losing more fluid from the body than is replaced by drinking

development a process of change that should lead to improvements in social and financial well-being and increased confidence

diarrhoea microbial disease that results in passing at least three very watery faeces a day and causes dehydration

dysentery a type of severe diarrhoea where there is fever, and blood and mucus in the faeces

faeces solid waste products from the body

HIV Human Immunodeficiency Virus

hygiene clean and healthy practices that maintain good health

latrine a small building or structure, usually separate from a house, where people go to get rid of faeces and urine

malaria a serious disease, resulting from the bite of an infected mosquito, which causes repeated high fever and headaches and may cause death

menstruation the regular monthly loss of blood and womb lining from a woman of child-bearing age

microbes a general term to describe the many different kinds of microorganisms which can cause diarrhoea and disease

nausea the unpleasant feeling of being about to vomit

NGOs non-governmental organisations managed independently of government

ORS Oral Rehydration Salts that are mixed with water to prevent dehydration due to diarrhoea

sanitation safe methods to dispose of human faeces, urine and other household waste

soakaway drainage area or pit for waste water, usually filled with stones to provide good drainage and to prevent pools of waste water forming that attract flies and allow mosquitoes to breed

SODIS using the sun's energy to make water safe for drinking

typhoid a serious disease resulting from food and water made dirty by faeces from an infected person, that causes severe fever, headache, stomach pain and skin rash

urine liquid waste product from the body

womb (or uterus) the protective female organ in which a baby grows

Contents

Healthy lives

Good health is a great blessing. None of us enjoy feeling unwell. We have all had times of feeling unwell. Sometimes this is because we catch an infectious disease such as flu, TB or measles. Sometimes we get malaria after a mosquito bite. However, there are many times when we feel ill because we suffer from diarrhoea.

Each year there are over four billion cases of diarrhoea, mostly among children. Each year over 1.7 million children die as a result of diarrhoea. Faeces and urine are waste products from our bodies. Many people do not realise that our faeces are full of tiny microbes that can cause diarrhoea and other diseases. Children's faeces have many more microbes than adult faeces. We can carry these microbes on our hands. They can also be spread by flies or through our drinking water. Even if our hands look clean, we cannot see the microbes. Washing our hands with soap will remove these microbes.

There are many other ways in which we can support each other to keep our families healthy. These include having safe drinking water, practicing good hygiene, eating well-prepared nutritious food and safely disposing of faeces and other wastes.

Discussion W1

- How important is it to keep ourselves and our families healthy?
- What do people traditionally believe about the causes of diarrhoea?
- How many people in our community, including children, do we know who have suffered from diarrhoea during this year?
- What traditional customs do we have that encourage healthy living?
- How can we help to keep our families healthy?
- Faeces are a dangerous waste product from our bodies. Can we think of any other kind of waste products from local industries that are also dangerous? How do people prevent themselves and others from being harmed by such waste products?

Mapping our situation

Conditions in the area where we live will have a large impact on our health. Here is a useful exercise to consider the situation in our local area together.

Divide into two groups. Each group should make a map showing the community and local area. As well as showing the roads, houses and community buildings, include the places where people get water. Show any latrines and areas where people go to pass urine and faeces. Show where household rubbish is placed. As people make the map, discuss the good points and any problems with each of these places.

When the maps are finished, each group should explain their map to the other group as a kind of role-play by imagining they are showing visitors around. Describe the route they would take and explain what they would say. One group should imagine how they would show around the local politician and a visitor with a special interest in water and sanitation. The politician is keen to impress the visitor by pointing out how good the local situation is. The other group should then show around a visitor from a water and sanitation NGO who has come offering help to improve the local situation.

Afterwards discuss the key differences between the two 'visits'. Raise any points that people in the other group forgot to mention.

Discussion W2

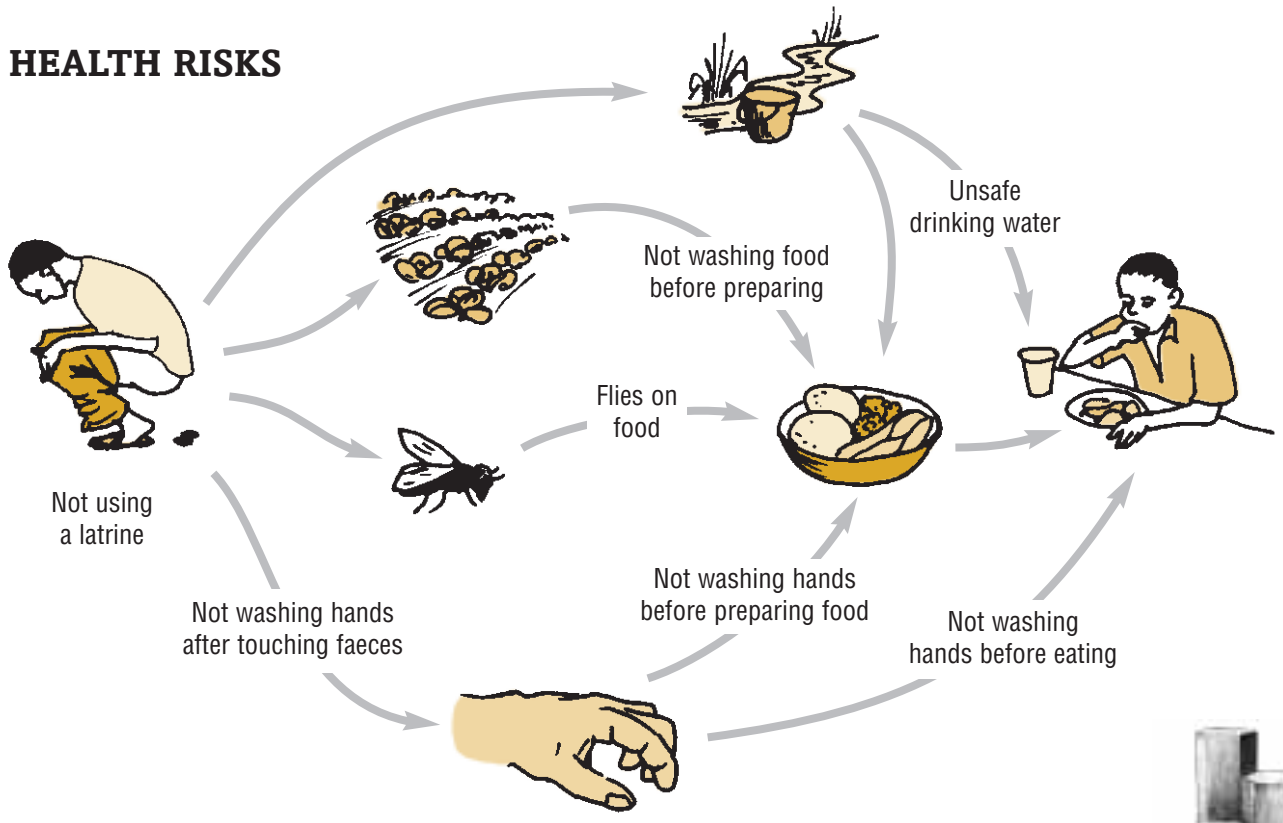
- How helpful was it to consider the situation regarding local water sources and sanitation practices as a group? What new information did we learn?
- Which is easier to do – to take pride in something positive, or to criticise things that are wrong?
- Were the two routes used during the exercise very different?
- How do people deal with rubbish, including plastic bags, tins or old shoes? Is it burned, buried or thrown away?
- Think of the water sources in our community and the improvements suggested to the visitor from the water and sanitation NGO? Could any of these be done without outside help?
- Think of where most people in the community go to pass urine and faeces. Are most people happy about the present situation? What improvements could be made at low cost?

Understanding how diseases spread

All of us are influenced by our situations and our culture. Our beliefs about hygiene and how illness is spread depend very much on what we learn as we grow up. However, our beliefs can change as we learn new information.

This drawing is a useful way of understanding all the different ways in which microbes from faeces may get into our mouths and cause illness. There are seven main ways in which this can happen but all of them begin with faeces. If we do not use a latrine, microbes from faeces can get into our water supplies and then into our mouths, either by drinking the water or on food washed in this water. Microbes from faeces left near crops can get onto the fruit and vegetables that we eat. Flies can carry microbes from faeces and then land on a plate of food that we eat. After passing faeces, unwashed hands will carry microbes either into our mouths or onto food.

Look carefully at this drawing and become familiar with all these seven possible ways in which microbes from faeces can make us ill.



Discussion W3

- Discuss each of the seven ways in which microbes from faeces can get into our mouths and make us ill. Which of them are most common in our community?
- What cultural practices and beliefs do we have that help prevent microbes from faeces making us ill?
- What are some ways in which we can stop microbes from faeces making us ill?
- Think back to the exercise with the maps. How do conditions in our area make it harder for us to protect our families from disease?
- Do we have any cultural practices and beliefs about faeces or hygiene that may be unhelpful in improving our health situation?
- People who are poor may find it hard to make changes that will improve their health. How much does lack of money and other resources make it hard for people to prevent disease?

Taking a health walk

In this Guide we will learn many useful messages that we can share with people to help them to live healthier lives. It is very helpful to first find out as much as possible about what people normally do, to make sure our messages are appropriate.

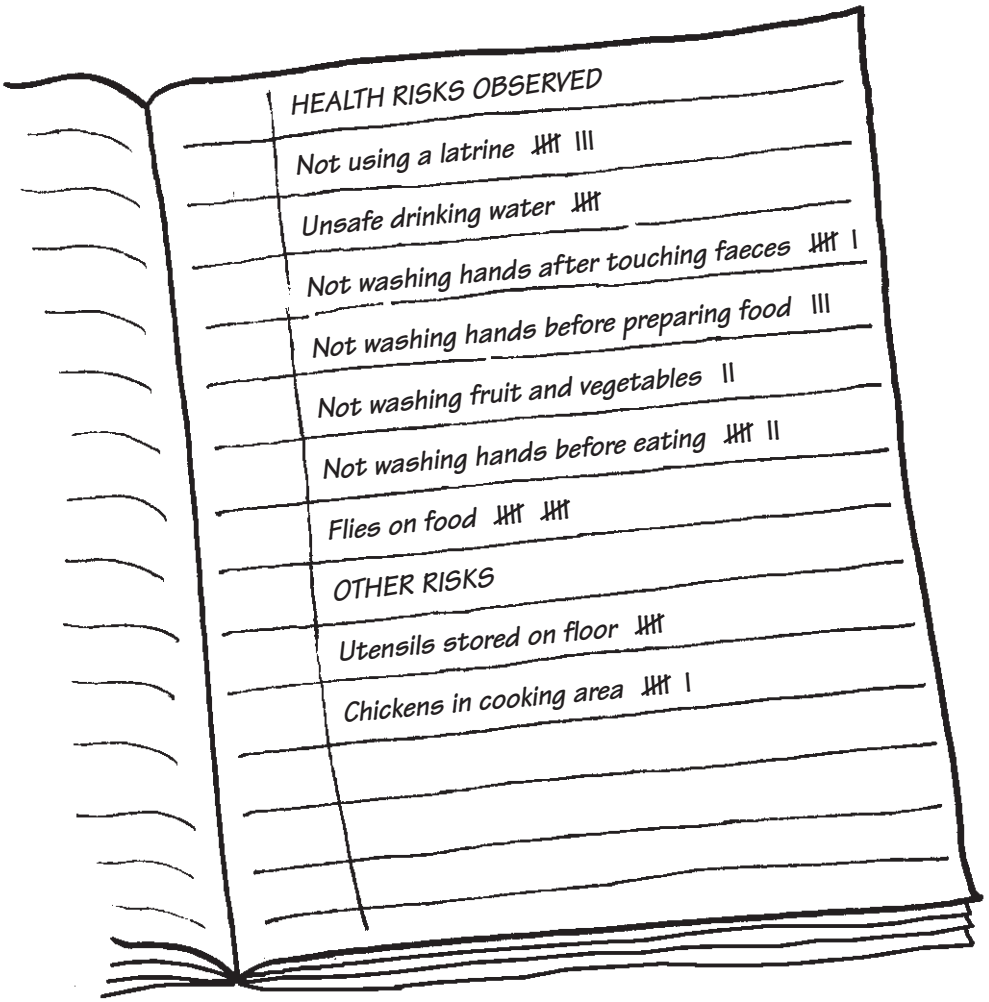
Plan to take a 'health walk' together. Plan a walk that follows a fairly straight line for about half a kilometre through an area where many people live, avoiding main roads. If there are many people in the group divide into smaller groups and take different routes. Use the simple chart on page 15 as a reminder of the health risks we have just learned about from microbes in faeces. Note on the chart all the things people do that could result in diarrhoea and other diseases.

Greet people and ask about where they obtain water and whether they have access to a latrine. However, be very careful not to cause offence by asking personal questions. Just make observations about availability and use of latrines, ease of hand washing, flies and household water supplies.

Share these observations, and any other knowledge we have of the local situation, together.

Discussion W4

- Did you learn anything new or surprising from taking this health walk?
- Combine all the information gathered into one chart. What are the major concerns for health and well-being in our community?
- Do most people believe their water supplies are safe to drink?
- How many people have good access to a latrine? Do they use it regularly?
- How do people dispose of faeces from young babies and children?
- When and how do people wash their hands? Do they use soap?
- Is food always protected from flies?
- Are cooking utensils and dishes stored off the ground?
- People usually have good reasons for their behaviour. How can we understand the reasons why people might prefer to use open ground to using a latrine, for example? Do men, women and children have different practices?



Hand washing

Most of the time when we look at our hands, they seem clean. However, they can look clean but still be covered by many thousands of tiny microbes. Touching faeces, either from cleaning ourselves after defecating, or cleaning up a young child or baby, will always cause our hands to become covered in microbes from the faeces. Touching the door of the latrine, or working in soil which may contain faeces, will also make our hands dirty.

Careful hand washing with soap and water will remove these microbes. This can be done with very little water. If soap is not available, ash, tree bark or soil can be used instead. It is really important to always wash our hands well after touching faeces, before preparing or handling food, and after handling raw meat. This simple action is the most important thing we can do to reduce the risk of diarrhoea and many other diseases. It is better not to wash in a shared bowl of water, but instead to either scoop out the water as we wash or have someone pour fresh water over our hands.

Keeping fingernails short and clean will also keep our hands cleaner.

Discussion W5

- How could we explain the idea of microbes? Is this a term that people understand? Is there a better word we could use?
- How can we know if our hands are covered with microbes?
- Most cultures have very good ways of ensuring that hands are kept clean. What practices do we use in our own culture? What could stop these practices from being used?
- How can we encourage young children to wash their hands after using the latrine? How can we encourage adults to do this too?
- Can we think up a simple role-play to show the importance of washing hands?
- Although we may all wash our hands, we can often improve the way we wash them. Medical staff are often trained to wash hands very well. Discuss how people usually wash hands here. How could this be improved?
- Where would be good places to demonstrate the best way to wash hands?

Washing with little water

It is helpful to make washing hands regularly as quick and easy as possible. If water is limited, there are ways of washing hands that use very little water. Used water from hand washing can be collected and used for washing floors, latrines or for watering home gardens.

A tippy tap can be made from a plastic container (see opposite page) or a gourd. The neck of the gourd is plugged with a piece of wood that has a small hole. Tippy taps allow just a little water to flow each time they are tipped. They are simple and quick to make. They can be hung just outside a latrine or by the door of the home. Don't fill them too full or they will not work well.

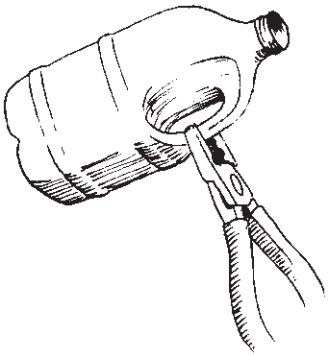
Soap may be expensive but makes washing much more effective. Bars of soap can be tied with string to prevent them being lost or dissolving in water. If rainfall is heavy, a small tin can be hung over the soap to keep it dry. If soap is not available, wood ash, sand or soil can be placed in a small tin and used instead.

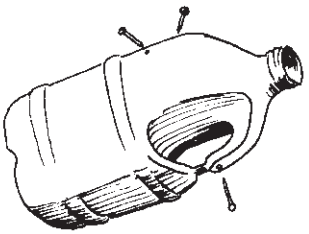
Discussion W6

- Why is regular hand washing so important?
- Which are easier to obtain here – an empty plastic container or a gourd with long curved neck? Could we find a suitable container and make one?
- Have we seen a tippy tap or leaky gourd in use? What are the advantages of using them rather than using a bowl of water?
- Would people be likely to steal a tippy tap? Where could they be hung up?
- How could we collect and use the waste water?

How to make a tippy tap

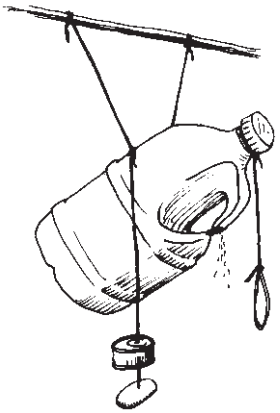
1 Warm the base of the handle over a candle and then pinch gently with pliers to seal it tight so water cannot flow through.





2 Heat the point of a small nail over a candle and make three holes as shown.

3 Thread string through the two holes on the back and tie the bottle to a stick. Attach soap (with an empty tin can above it to protect it from rain) and make a handle which is pulled to let out a trickle of water.



Investigating hand washing behaviour

It can be hard to encourage people to wash their hands if they don't see the need. If we know what people believe about washing hands, we can share more useful messages.

One way of doing this is to carry out a simple survey, for example, in a school, in a clinic waiting room, in the market or after a church service. Use separate groups for men, women and children. Copy the six drawings on page 70. They show someone weeding vegetables, someone defecating, someone plucking a chicken, a lady cleaning up a baby, greeting visitors and replacing a chain on a bicycle.

Collect six small pots and some large seeds (maize or beans are ideal). First check that people understand what the pictures mean. Place a picture in front of each container. Give each person three seeds. Ask them to choose the three most important times for washing hands. Place one seed in the tin that represents each of the three activities they have chosen. Try to make sure people can vote without others knowing which pictures they choose.

Count up the results each time and write them on a chart (see page 21). Discuss the results both as a group and, if possible, with the people who took part in the survey.

Discussion W7

- Which are the times when people feel washing hands is most important? Why do you think people have voted for these? How much are people influenced by the need to appear clean in front of other people?
- Are there big differences between the results from different groups of people and between men and women? What are the differences? Can we think of reasons for the differences?
- How could these findings help share positive messages about hand washing?
- Prepare a role-play about a schoolboy whose mother is angry that his hands are still dirty after mending his bike. His sister has just learnt about good hygiene at school that day and says that her mother's hands are in fact much dirtier than her brother's, because she has just cleaned up the baby but has not washed her hands.
- Think of a simple poster about hand washing that uses some of these findings. For example, if people believe it is really important to be clean before greeting visitors, a poster could say 'make sure the food for your guests is as clean as you are'.

AN EXAMPLE OF POSSIBLE RESPONSES

	Our group	St Peter's church	Mwaniki school	Health centre	TOTAL
Weeding vegetables	3	6	2	7	18
Defecating	5	4	8	4	21
Plucking a chicken	4	3	2	3	12
Cleaning up baby	3	2	2	2	9
Before greeting visitors	2	8	5	7	22
Mending bicycle	4	7	9	8	28

Keeping ourselves clean

We have already learned about the importance of keeping our hands clean. The rest of our body also needs to stay clean. Every day we should wash our face and body well with soap and water. This is particularly important for babies and young children. Regular washing helps prevents skin infections and removes sweat and dirt. Sticky mouths, noses and eyes attract flies that can cause eye infections and diarrhoea. If cloths are used to wash children, use a different cloth for each child to prevent any infection from spreading. Very little water is needed for washing and the waste water can be used in home gardens.

Our teeth should be cleaned at least twice a day. We can use a brush and toothpaste or a chewing stick and paste made by mixing half salt and half baking soda. Brush gently in all directions for at least two minutes each time.

Our fingernails provide good hiding places for dirt and microbes. They need to be kept clean and short.

Our clothes and bedding need regular washing too. Drying them in the sun on a bush or line helps to prevent pests such as lice and bed bugs.

Discussion W8

- Where do people in our community wash?
- Are people in our community able to wash as often as they want to?
- When water supplies are low, how do people manage to wash?
- How can we encourage mothers and carers to keep young children's faces and hands clean?
- What local trees are useful to make chew sticks from?
- How easy is it to buy bicarbonate of soda? Is there an alternative that we can use to clean our teeth?
- Fruit trees planted near the home will benefit from all the waste water used in washing. How could we encourage people to use waste water in this way instead of throwing it away?

Treating diarrhoea

When people get diarrhoea, they can lose a lot of water and salts from their body very quickly. Babies and young children suffer most. In many cultures, people believe that diarrhoea washes out sickness and that you should not give food or water until the diarrhoea ends. However, unless the lost water and salts are replaced, the child will become seriously ill and could die without treatment.

Sick children or adults can be taken to a clinic or hospital for treatment. However, unless they are very sick, they can be cared for at home using a special drink known as Oral Rehydration Salts. Packets of ORS can be bought and mixed with one litre of safe drinking water. The drink can also be made in the home and is effective as long as the quantities are correct. Add a small pinch or ½ level teaspoon of salt and a small handful or eight level teaspoons of sugar to one litre of safe drinking water (measure using a one litre bottle or four cups). Mix them together and give a few sips every five minutes. The drink must never taste saltier than tears. If available, add some fresh lime, lemon or orange juice.

A couple of handfuls of ground rice, maize or millet can be cooked with a litre of water with ½ teaspoon of salt added. Cool and use for rehydration in the same way. Remember to keep feeding a child who has diarrhoea, using soft foods.

Discussion W9

- What is our traditional treatment for young children or babies with diarrhoea?
- How effective is this?
- Have people seen packets of ORS available in the local clinic or shops? How much do they cost?
- Have people used ORS or this water, sugar and salt drink to treat either themselves or young children with diarrhoea? How effective was it?
- Adding too much salt to the recipe can be dangerous for the patient. How can we make sure people do not use too much salt?
- How could we train people to make this drink and use it? In some places people use songs, posters or rhymes to help people remember the ingredients.
- Could we develop a simple role-play to share this lesson? Where could we use the role-play?
- Children are very good at remembering simple health information that they can then share with their parents. How could we teach school children how to make and use ORS safely?

Breast-feeding

During the first six months of a child's life, breast milk alone is the ideal food. It contains all the nutrients and water needed for healthy growth. It also provides good protection against many common infections.

Baby milk manufacturers try to persuade mothers that bottle-feeding is the modern and best way of feeding babies. This information is not correct. Breast milk is nearly always better for a baby's health. Bottled milk requires safe water and very clean bottles and teats to make sure that microbes do not enter the milk. It is expensive. Correct measuring spoons are vital so the milk is the correct strength. Often the water or the feeding bottles are not clean enough or flies are allowed to touch the bottle. Bottled milk lacks the protection from disease that breast milk gives, so babies are far more likely to die from diarrhoea, pneumonia and other diseases.

Even when a mother has HIV, it is still better to breast-feed. If the baby is fed only breast milk for six months with no other liquid or food at all, and the mother then stops breast-feeding as quickly as possible, the risk of passing on HIV is much lower.

Discussion W10

- People often believe that bottle-feeding is the best way to feed a baby. Is this belief common in our area? Why should this be?
- What experience do people have of bottle-feeding? Do bottle-fed babies suffer from more infections than breast-fed babies?
- What could we do to tell people that breast-feeding is safer, healthier, free and better for babies?
- What adverts are used to promote the benefits of bottle-feeding? If possible collect some from a magazine or newspaper. Could we design a poster promoting the benefits of breast-feeding that uses similar ideas?
- How much do people understand about the risks of passing on HIV through breast-feeding? Are the figures (given below) a surprise? What do we think the best choice would be for women who are HIV positive in our area?

BREAST-FEEDING AND HIV

The longer breast-feeding continues, the greater is the risk of HIV infected mothers passing on the HIV virus to their babies.

One in every 20 babies will become infected if breast-fed for six months

Two in every 20 will become infected if breast-fed for a year

Three in every 20 will become infected if breast-feeding continues for two years.

However, **three to five in every 20 babies** are likely to die before the age of five if they are bottle-fed in poor conditions where it is difficult to sterilise bottles and water.

Women's hygiene

Menstruation is a natural event for all women of reproductive age. For most women it occurs once a month. Each month the womb develops a special lining that can protect and feed a fertilised egg as it develops into a baby. If a woman is not pregnant, this lining is no longer needed and is lost from the body. Menstruation shows that a woman is healthy and fertile.

Unfortunately all kinds of beliefs and taboos have developed around menstruation. In many cultures women are thought to be unclean during menstruation. Women have different ways of dealing with the menstrual flow, which is rich in blood, to avoid staining their clothes. Disposable sanitary towels are widely available but many women cannot afford to use these. Instead they use rags made from old clothing.

Because of the shame often associated with monthly bleeding, women may wash and dry these rags indoors, hidden away in dark and sometimes damp conditions. This means the rags may become covered with insects and full of microbes. Infections and soreness often result. Rags should be washed in safe water using plenty of soap, dried in full sun and stored in plastic bags when dry. Women should also wash themselves well each day.

Discussion W11

- What terms are used in our culture for menstruation?
- What traditional beliefs does our culture have about menstruation? Are these helpful or harmful?
- Are girls and young women in our community encouraged to take pride in the normal working of their bodies? How are they made to feel ashamed?
- Where can women discuss these issues openly? Where can they ask for medical advice without feeling ashamed?
- How can men become more understanding of the needs of women?
- How could womens' need for private washing and drying areas be met in our community?

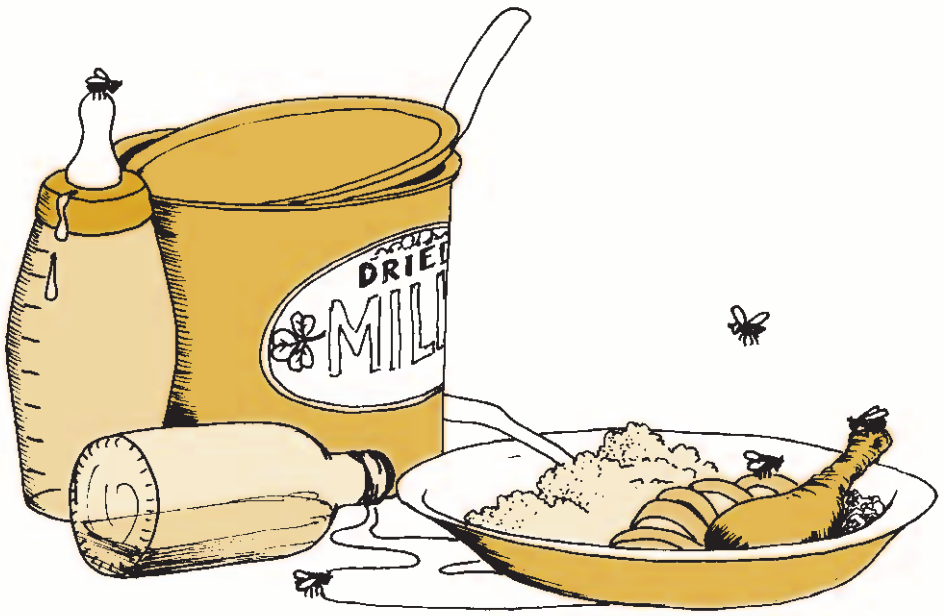
Keeping food safe

The microbes that cause diarrhoea and other diseases can be spread through food as well as water. Most people already have good ways of handling food. Fresh, well-cooked and covered food is free from microbes and safe to eat.

However, food can collect microbes in several ways. A person with unwashed hands who touches food will make it dirty. Flies often feed on faeces. They carry faeces and microbes on their feet to wherever they next land. Just one fly crawling over a plate of food can be enough to spread diarrhoea to the people who eat the food. Wash fruit and vegetables well before using. Cover food once it is cooked and make sure it is eaten soon after. In hot weather it can spoil quickly.

Microbes can also be spread when people handle raw meat and then don't wash their hands before touching cooked food. Raw meat contains microbes that are killed during cooking.

Take care to keep all pests away from food, including flies, mice, rats and cockroaches, and other household animals such as chickens, dogs and cats. All of these can spread microbes onto food.



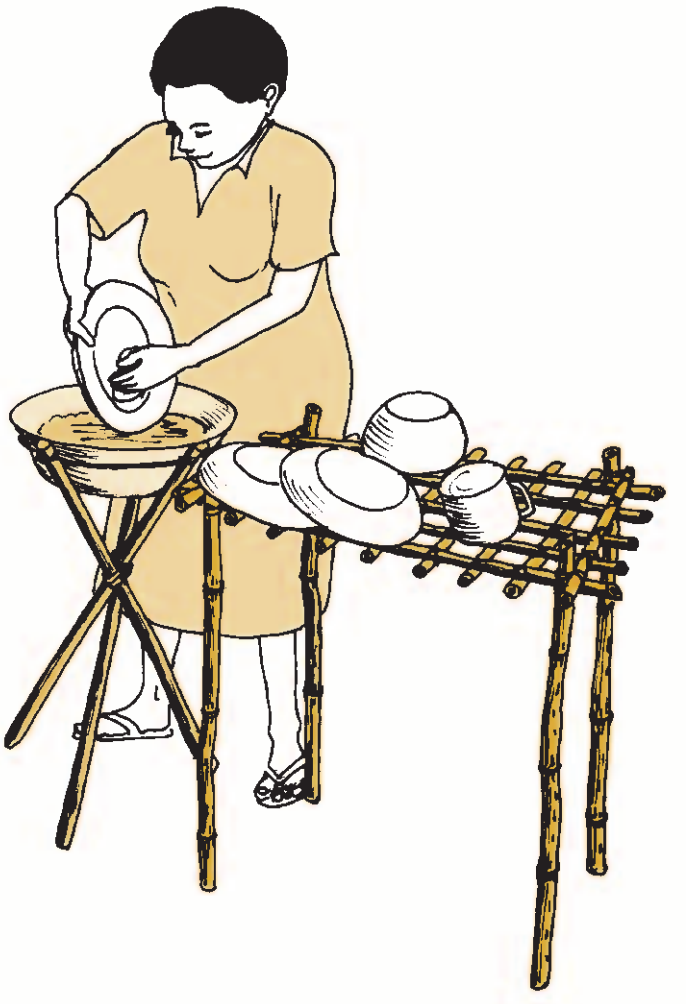
Discussion W12

- What traditions do we have that help to keep food safe from microbes?
- What can we use to store food safely; both cooked and uncooked food?
- In what situations is cooked food kept for a long time after cooking? Can this lead to the food spoiling?
- How can someone working with raw meat make sure they never touch cooked food before washing their hands?
- What are the main pests that we have to keep away from food in our area?
- What can we use to cover food?
- How can we reduce the number of flies and other pests that could make our food dirty?

Washing and drying dishes

Good hygiene in handling food is very important. However, it is also important to make sure that the dishes and utensils used for serving food are clean. If dishes and utensils are washed in dirty, greasy water they will be covered with many microbes. If they are dried with dirty cloths they will collect more microbes.

Use soap for washing dishes and utensils. If water supplies are limited, washing water does not have to be drinking water quality. However, always rinse dishes and utensils with safe water after washing. Avoid drying them with cloths. It is much better to make a simple drying rack so that dishes dry in the sun. Not only is this more hygienic but it saves time!



Wooden, plastic and clay dishes and utensils need particular care in washing. Microbes can remain in cracks and rough surfaces. Enamel and metal containers are easier to clean.

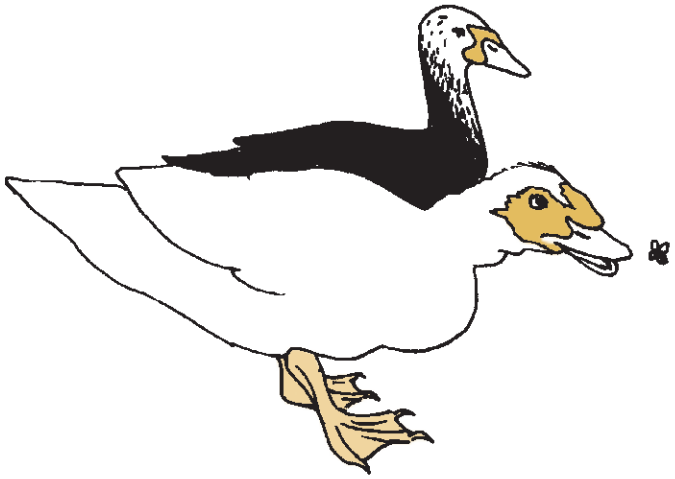
Utensils that are clean and dry should be stored where pests and flies will not spread microbes on them. They can be stored on a drying rack and covered with a cloth. If there is a cupboard available, store them upside-down to stop cockroaches, mice and other pests crawling into them. Utensils should not be left lying on the ground.

Discussion W13

- Look at a typical plate used for serving food. Can we see microbes on it? How can we tell if it is really clean?
- What methods are used to wash dirty dishes here? Are dishes and utensils always washed with soap and rinsed with clear water?
- Who does the washing of utensils? Are they likely to be aware of good hygiene? How can we help them to understand how microbes can make utensils dirty even if they look clean?
- What kind of cloths are used for drying utensils? Are they clean?
- Are drying racks commonly used? If not, could we try to make one and try it out? What materials are available to make a rack?
- How can we encourage others to make and to use racks?
- How are clean dishes and utensils stored? Are they kept free from pests? How can we make sure that pests do not walk over them while they are being stored?

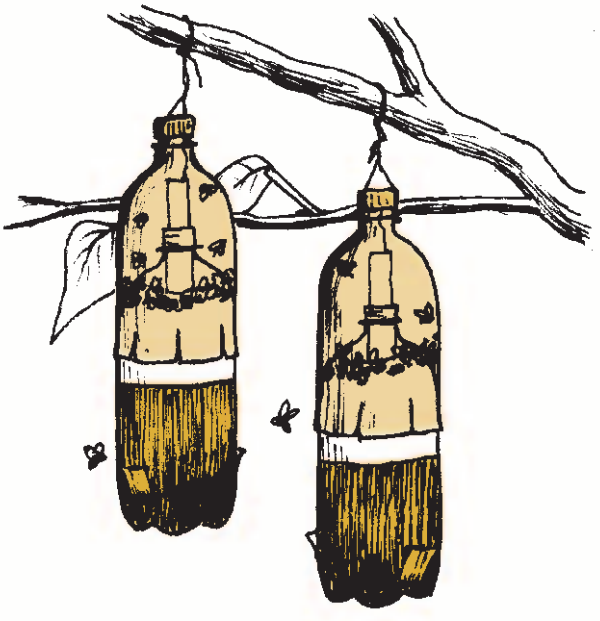
Reducing flies

Flies are never wanted! They are always a problem. When people realise the role they have in spreading diarrhoea and disease, they are even less welcome. Getting rid of flies is almost impossible. However, there are a number of ways to reduce their numbers. These include using latrines, keeping animals out of the home and keeping rubbish areas away from where people live.



Muscovy ducks love to eat flies. They can eat an astonishing quantity of flies. At the same time the ducks will produce eggs and meat to eat. They don't need a pond but will appreciate a bowl of water.

This simple fly trap made from empty plastic bottles will help to reduce flies. Each trap requires two plastic bottles and some black paint. If paint is not available, use either soot mixed with old oil, black cloth or paper. A small amount of manure is placed in the base to attract flies. Once inside, flies will fly upwards towards the light and become trapped inside. The trap pulls open to empty regularly and remove dead flies.



Discussion W14

- What methods can people suggest to reduce the number of flies?
- How can we keep flies away from food preparation areas?
- Are there times of the year when flies are worst? Is there any reason for this?
- What do people know about Muscovy ducks? Is there anywhere locally where these ducks can be obtained?
- Can we try making this fly trap? It needs two empty plastic bottles of similar size, a sharp knife and something black to paint or cover the base.
- Where can we hang these to be most effective?

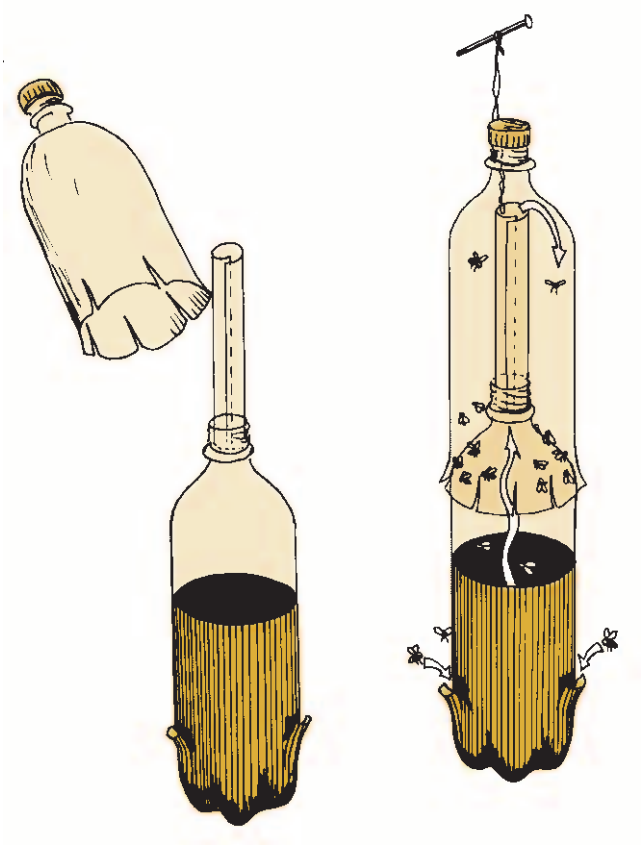
MAKING A FLY TRAP

A Take an old plastic bottle, paint the lower half black and make three small holes for flies to enter.

B Cut another bottle in half. Make a tube by cutting up some of the base and place into the opening of the first bottle.

C Fit the top half onto the first bottle.

D Put a little manure in the base and hang outside.



Preventing worms

Many households have animals living either in or around the home. These may include dogs, cats, chickens, ducks, sheep and goats. Sometimes they spend the night in a room next to the sleeping areas. They are part of everyday life. However, all animals and birds carry microbes and worms. After handling animals and birds, it is very important to wash hands before handling food or water.

There are a number of different worms that can live inside our bodies. Many are too small to see; others we can sometimes see in faeces. They use food that our bodies should benefit from and stop children from growing well. Sometimes they cause stomach pain or itching. Their eggs can be in our faeces. Keeping animals out of our homes will help protect young children from diarrhoea and worms. Wear shoes to avoid catching worms from faeces on the ground.

Worms can be treated with a number of different drugs. If one person in the house has worms, every family member should be treated at the same time. Schools and communities could organise 'worming days' for every person. These are an effective way of reducing the problem of worms. However, the best way is for every family member to use a latrine and then wash their hands with soap.

Discussion W15

- What kind of birds or animals are common around our homes? In what situations do animals or birds share our homes?
- Are people aware of the microbes and worms which birds and animals carry? Can we treat our domestic animals for worms?
- How could people keep animals out of the living areas of their homes?
- How can we encourage people to be very careful in washing their hands after handling animals? Who needs this information?
- How will using a latrine reduce the risk of spreading worms?
- How easy is it to obtain drugs to treat worms? Have people used these drugs for their families? Were they helpful? Who would have more information about this?
- Do people know of traditional medicines that can be used to treat worms?

USING PAPAYA OR PAWPAW (*CARICA PAPAYA*) TO TREAT WORMS

Collect sap from a large unripe fruit still attached to the plant by making several vertical cuts in the fruit. Collect the drops of white sap in a clean cup. Use the fresh latex in the morning before eating, using the doses given below. It can be mixed with water. Repeat one week later. Always use a stainless steel knife and spoon and be careful to keep the sap out of the eyes.

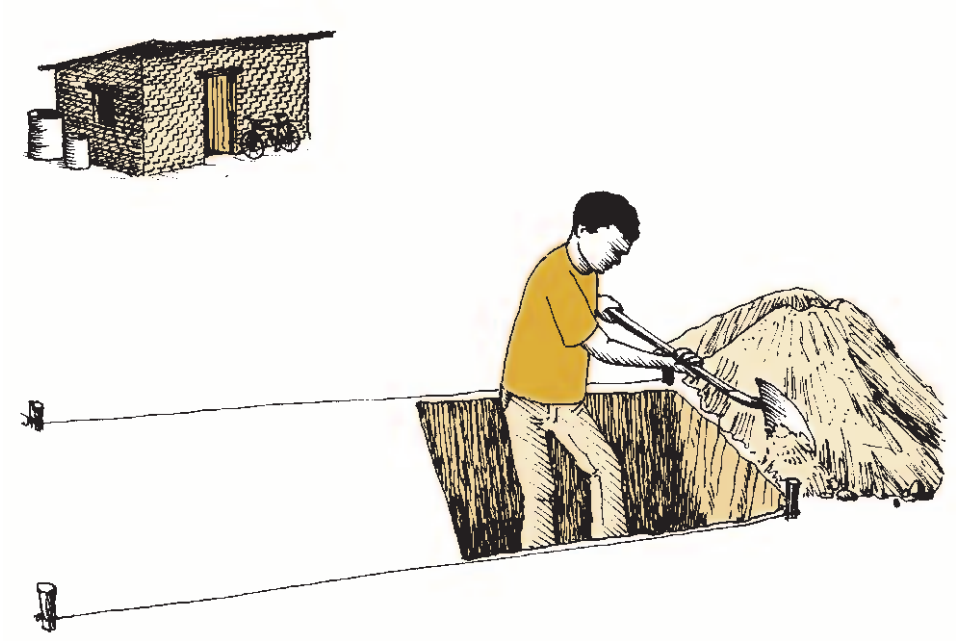
- For adults take 4 teaspoons of fresh latex
- For children aged 7–13 years take 3 teaspoons
- For children aged 4–6 years take 2 teaspoons
- For children aged 1 to 3 years give 1 teaspoon
- For babies of 6 months to 1 year give ½ teaspoon
- For adult cows, buffalo or horses give 6 teaspoons of fresh latex
- For adult goats or sheep give 3 teaspoons
- For dogs or cats give ½ to 1 teaspoon depending on size

Household waste

All households produce some waste. This may include food waste, paper, plastics, tins, batteries and broken tools and equipment. Paper can be recycled or used for lighting fires. Old cans or cut-up plastic bottles can be used for growing tree seedlings. Vegetable waste can be placed in compost heaps or pits and turned regularly to produce good compost for use in home gardens. Some rubbish can be burned but avoid burning plastics, aerosols or batteries. They can release poisonous chemicals and aerosols can explode.

Dispose of other waste at a convenient distance from the home. Rubbish pits are the best and safest way of disposing of household waste. They remove household waste from view and keep unpleasant smells, flies and rats away from the home.

Pits should be about the size of two doors (2 x 2–3 metres) and one metre deep. This size will last an average household several years. Pits should be dug at least 20 metres from water supplies and 20 metres from homes. They should be dug on higher ground in wet areas so they are less likely to fill with water during the rainy season. Cover the rubbish regularly with a thin layer of soil to avoid smells and reduce flies. Build a fence or hedge to keep out young children and animals.



Discussion W16

- Where do people usually dispose of household waste? Does this cause any problems?
- What kind of household waste cannot be used or recycled?
- Why should rubbish pits not be too close to homes? Will it mean people are less likely to use them?
- Why should rubbish pits be kept so far away from water sources?
- Would it be better for several households to share a pit or should each household have their own rubbish pit? Who should be responsible for planning, for digging and for maintaining the pit?
- If possible, following discussion and agreement, dig and maintain a rubbish pit.
- When a rubbish pit is full, how can its site be marked to avoid people digging it up again?

Making drinking water safe

Obtaining safe drinking water is a struggle for many people. The microbes that spread diarrhoea are often found in dirty water. Water becomes dirty in many ways. It may contain faeces and urine, soap from washing or chemicals from industry. Dirty water can be used for washing clothes. However, if we drink or cook with dirty water, we can become ill. Let muddy water settle for a day and then pour off the clearest water into a clean container. Repeat this a day later. This will produce clearer water that can be made safe for drinking in several ways.

We can boil the water for a few minutes if we have enough fuel. We can add chemicals such as chlorine bleach, being very careful to follow the instructions on the bottle. We can make and use a sand filter.

Another easy way is to use the sun's energy. Collect some clean, clear large plastic bottles that are not too scratched. Fill each bottle ¾ full and shake it for 20 seconds to add oxygen. This will help kill microbes in the water. Then fill to the top with more water. Place the bottles on their side in full sun for at least six hours on a roof, table or bench. If possible place them on a piece of black plastic or cloth. Cool the bottles. Keep the lids on until needed to keep the water safe to drink. If the weather is cloudy, there may not be enough sun and the method will not work.

Discussion W17

- Where do people in our community go to collect their water during the wet season and during the dry season?
- When safe drinking water is hard to get, people often drink unsafe, dirty water. How can we try to improve this situation in our community?
- How many homes in our area collect rainwater from their roofs at present? What reasons stop people doing this? What are the best ways of collecting and storing this rainwater?
- Boiling water or adding chlorine makes water safe to drink. However, it can change its taste. Too much chlorine will make the water taste bad but the right amount should give a good taste. Have people tried these methods? How does the water taste?
- Do people have any experience of making and using sand filters?
- If moringa trees grow in our area, the ripe seeds can be ground into a paste and stirred into a bucket of water. This helps to make water safer to drink. Does anyone have any experience of using moringa in this way?
- Using the sun's energy to clean water is very easy to do. Do people have any experience of using this method? (It is often known as SODIS.)
- Shaking the bottle for 20 seconds is very important to make sure the microbes are removed by the action of the sun and oxygen in the water. Can people think of easy ways to count to 20 seconds? (For example, by counting out loud 'one second', 'two seconds' up to 20 seconds.)
- Could you put together a simple role-play to teach people about how to use the sun to make drinking water safe?
- Who could we ask to find out more about making water safe to drink?

Storing drinking water

Household water supplies are a problem for many people. In urban areas people may need to pay a lot for water. People in rural areas may have to walk long distances to collect water.

Keeping water in clay pots will help keep water cool and fresh for drinking. Plastic or metal containers may be easier to use for collecting water as they are lighter to carry, but they do not keep water cool.

As well as removing the microbes that cause diarrhoea from our hands and drinking water, it is also important to keep these microbes out of stored drinking water. There are several ways microbes can enter drinking water. Safe drinking water can be poured into a dirty container. Rinse water storage jars each time with safe water before use. Leaving water uncovered means that dirt or flies can fall in. Water for drinking should always be covered.

Another way that microbes get into water is when someone with unwashed hands touches the water. Anyone taking a drink, who has not washed their hands after touching faeces, will make all the water dirty. Either pour water directly from the container or use a ladle or gourd with a long handle to scoop out water. Do not drink directly from this but use a cup. Store the gourd or ladle in a clean place and not on the ground.

Discussion W18

- What are our traditional ways of storing drinking water in the home? How good are people at keeping water safe to drink?
- How have customs changed in recent years?
- What could be used to scoop water from the container without letting hands touch the water? How could this be kept close to the water container and be kept clean?
- How can young children be prevented from putting their hands into drinking water containers? Should we recommend that only adults should serve drinking water unless there is a tap?
- Are clean clay pots available to store cool drinking water?
- What kind of covers would make sure that drinking water is always kept covered? Do some people have useful ideas to make sure drinking water is kept safe to drink? Visit their homes to observe them if possible.

Managing water supplies

There are many different sources of water that can be improved and managed. Safe and accessible water supplies make a huge difference to people's health and their quality of life. Building rainwater tanks, capping springs and digging wells can all be done by local people. Drilling rigs and piped water will require outside experts and funding.

An elected Water Management Committee could help to make sure that water supplies are well managed and benefit all local people. Water committees should include representatives of community leaders, women, different ethnic or caste groups, and people with technical skills. They can agree reasonable charges, if necessary, in order to pay someone to manage the water supply and maintain water pumps.

Committees should make sure the area around water points is protected from animals and safe for women and children. Planting trees will help prevent soil erosion and keep the area attractive. Drainage channels filled with stones (soakaways) will allow waste water to drain away, rather than allowing pools to collect where mosquitoes and other pests can breed. Drinking areas for animals should be made some distance away. Areas for washing clothes and for personal hygiene should be kept separate from the water supply.

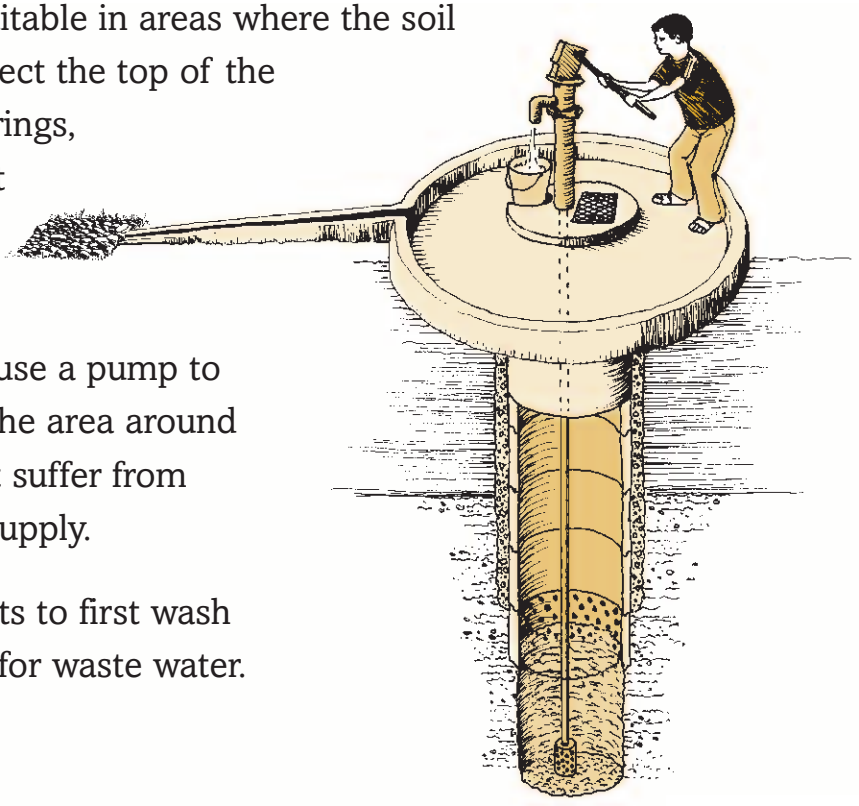
Discussion W19

- What kind of water supplies does our community have access to? Are these supplies adequate? Do women and children spend a lot of time collecting water?
- In what ways could we improve our water supplies? Is outside expertise and funding needed?
- What benefits would a water management committee bring? What groups of people should be represented on such a committee? What decisions should they make on behalf of the community?
- What benefits would there be in employing someone to manage the water supply? How much should they be paid for this work? How could the community pay them?
- Why should areas for livestock and washing clothes be kept separated from drinking water supplies?
- Does anyone have experience of building soakaways? Where else might they be useful?
- Is there a need for washing areas for men and women? What would be needed for these?
- Do people expect to pay for water supplies? Are there advantages in charging people for water? If so, what is a reasonable price to pay? Would this cover the cost of maintaining adequate water supplies?

Improving water sources

Scoop holes can provide safer water if their sides are built up with shallow walls of stone, brick or concrete and the top is covered. Removing the base from a cooking pot with lid can also make a cheap and effective cover. Springs can be dug out and capped with walls of stones or cement blocks to provide good access to safe water through a pipe.

Hand-dug wells will improve water supplies in areas where natural water levels are reasonably close to the surface throughout the year. If the water level is very deep then drilling rigs will be needed. Hand-dug wells are usually between 5 and 15 metres deep and should be at least 20 metres from a latrine or rubbish area. They are only suitable in areas where the soil is not too sandy or rocky. Protect the top of the well with reinforced concrete rings, stones or brickwork to prevent collapse of the walls.



If possible, cover the top of wells with concrete slabs and use a pump to keep the water safe. Build up the area around the well surround in areas that suffer from flooding to protect the water supply.

Ask everyone using waterpoints to first wash their hands. Build a soakaway for waste water.

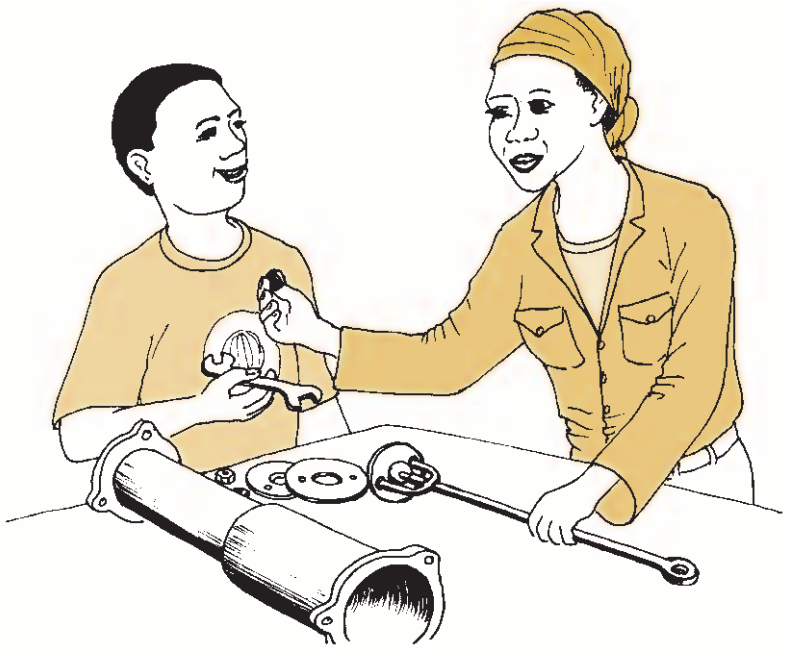
Discussion W20

- Do many people use scoopholes, often in river beds or near ponds, as water sources in our area? How could these be improved?
- Are there any springs in our area that provide water? How regular are the supplies of water? Does anyone have any experience of clearing out the area around a spring and protecting it by building a wall around it?
- What kind of soils do we have in this area? Would they be suitable for digging hand-dug wells?
- Do people have any experience of digging hand-dug wells successfully?
- What facts should be considered when planning where to site a hand-dug well or any other water point?
- What traditional methods are used when planning where to site a well? Are any of these methods still useful today?
- How could we encourage people to wash their hands before collecting water?
- How can animals be kept away from water points?
- Why is it a good idea to build a soakaway?

Maintaining water pumps

Most people can probably think of wells in their area that were built, worked well for several years and then were no longer used when the pump broke. Often, wells and water pumps are provided by outside agencies. There may be ceremonies to celebrate their arrival, but often no-one in the community takes responsibility for maintaining them. The pumps are well used until they develop problems. Eventually, they break and remain broken because no-one knows how to mend them.

Training people with the skills to maintain and repair water pumps is almost as important as installing them. Without these skills the work and investment will be wasted. Water committees should appoint and obtain training for people to maintain the water pumps. Unlike men who may travel and work elsewhere, women are more likely to remain in the community. They have a personal interest in maintaining water supplies so may be good people to train. Water committees may agree to charge users a small fee for regular supplies of water. This fund would provide money for regular maintenance, spare parts and eventually to replace the pump.



Discussion W21

- Do people know of any broken or faulty water pumps? If so, what caused the problems?
- Who takes responsibility for repairing the pump or reporting the problem?
- Who has the skills to maintain pumps locally? How much do they charge?
- Would women be good people to train to maintain and repair water pumps? What would be the advantages and disadvantages of training women with these skills?
- How could households be charged a small amount for the provision of safe water? How much would be recommended? Who should collect this payment? Where should the money be kept safely until needed?
- When installing a new pump, how can we make sure we choose a type that is reliable with readily available spare parts?
- Should a water committee buy a stock of spare parts (those that wear out more quickly) for a pump in advance?
- Prepare a role-play to help community members understand the value of making small regular payments to ensure their water pump will remain in good working order.

Using latrines

If people do not have access to latrines, then burying faeces in the ground is a simple step that will improve hygiene. It will reduce people's risk of contact with faeces.

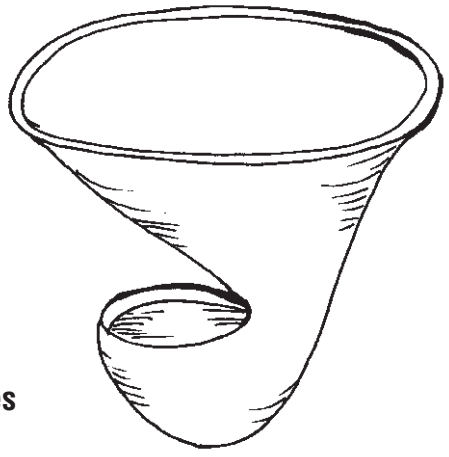
Building and using latrines is a really important way of reducing the risk of spreading microbes and worms among our family and neighbours. They also improve household well-being and safety, especially for women and children. Families should be able to take pride in their latrine, knowing how much using a latrine will improve their family's health.

Using latrines will prevent flies, pests and animals having any contact with faeces so they cannot spread microbes into our homes, food or children. It is important to keep latrines clean, so that people will want to use them. The floor can be washed regularly with soapy water left over from washing. Place a tippy tap and soap by the entrance for hand washing.

There are several types of latrine. These include ordinary pit latrines, VIP latrines that control bad smells and flies, and water seal latrines that use water to flush. Composting latrines speed up the breakdown of faeces into safe compost, by separating urine and keeping faeces dry. The urine is mixed with water and used for plants. Soil is mixed with the faeces and the pit sealed for at least a year when full. Then it will be safe to use as compost.

Discussion W22

- Most people have experiences of using bad latrines they would rather forget! What kind of problems have people experienced with using latrines? What are some of the benefits?
- What type of latrines are used in our area?
- What kind of people usually have household latrines?
- Do men use the latrine or do they consider them only for women and children?
- Does the safety of young girls and women need to be considered when planning latrines?
- Who is responsible for repairing and cleaning latrines?
- Do people in our community use a latrine at night? If not, what do they do?
- Does anyone have any experience of using composting latrines? In some cultures it may not be acceptable to use human faeces as compost even after several years. What would be the advantages of using composting toilets? Where could we get more advice about these?
- Plan a short role-play about a visitor who shares a meal with a family and then wants to use a latrine. The family do not have one. Show their embarrassment at having to explain this. How could the role-play end positively?



Water seal latrines use water to flush

Planning a pit latrine

Latrines need to be built near the house but at least 20 metres from any water source. The walls can be built of mud, brick, matting or corrugated iron. The roof can be made of grass or tin sheets. If the soil is rocky and hard to dig or the water level in the ground is high, the latrine can be raised above the ground level and built up with stone or blocks.

Latrines usually have a single pit about three metres deep and one metre in diameter. The latrine pit should be reinforced at the top to prevent collapse, especially if the soil is loose and sandy. This can be done using bricks, blocks, reinforcing rings, basket work or an empty 44 gallon oil drum. Dig to the depth of the lining – usually one metre – and insert the lining before digging further. The pit should now be slightly smaller to support the lining.

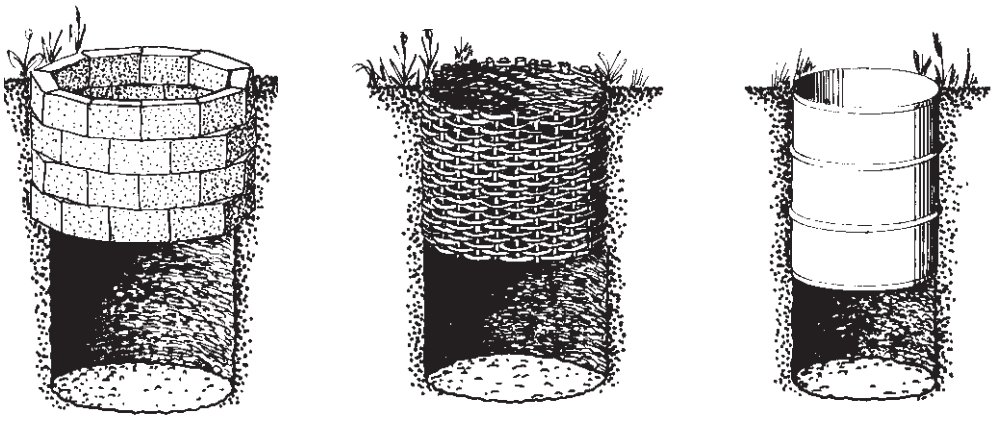
The most important part of any latrine is the covering slab. These must be well-made, strong and easy to clean. The hole should not be too large or small children could fall in the pit. Wood can be used, but slabs made from cement are usually better. Some slabs use water seal units. Others use simple holes. A cover with a handle should be used for the hole.

VIP latrines are built with a long plastic pipe or brick chimney inside the covering slab extending above the roof. The top is covered with a fine mesh to trap flies. As flies fly up from the pit to the light they are trapped and die. The pipe helps to reduce smells. This kind of latrine needs to be dark inside with the door facing away from the sun.

Discussion W23

- What do people feel is important to consider when planning to build a latrine?
- What soil types are found in our area? How would this affect what kind of latrine is built? What experience have people had of reinforcing pits – for latrines or wells?
- Is there any kind of practical or financial help available for people who want to build a latrine? What organisations might provide help?
- Are communal or household latrines better?
- What is most likely to motivate people when deciding to build a latrine: family health, community health, convenience, safety or pride?
- What type of latrine would be most suitable for a school?
- Are there any cultural issues that prevent men and women using the same latrine?
- Dangerous slabs are usually among people's bad experiences of using latrines! What kind of slabs have people seen used? Which have been the best? How could we plan together to build or to use these?
- Are there people in our community with building skills who could make strong and safe slabs?
- Are there any NGOs or government departments who could be asked for help with training, designs or providing moulds for latrine slabs?

WAYS OF REINFORCING LATRINE PITS



Children's latrines

Young children are often afraid to use a latrine. They may be unable to open the door, afraid of the dark or the pit. However, even young children should learn the importance of using either a potty that can be emptied into the latrine or a child's latrine. Teach young children how to wipe or wash themselves after passing faeces. Girls should be taught to always wipe from front to back to prevent infections.

Many people believe wrongly that the faeces of babies and young children are less harmful than those of adults. In fact they contain many more microbes. Young children often carry many worms in their stomachs and their faeces will often contain worm eggs.

Simple latrines near the home can be made for young children. These should have a shallow pit – about 0.5 metres deep. Cover this with a small slab with a cover for the hole. No walls are needed. Encourage young children to always use this and to replace the cover each time. Add some ashes or soil regularly to control the smell. Move the slab to a new hole once it is nearly full and fill in the used hole with soil. A tree could be planted in the hole!

Discussion W24

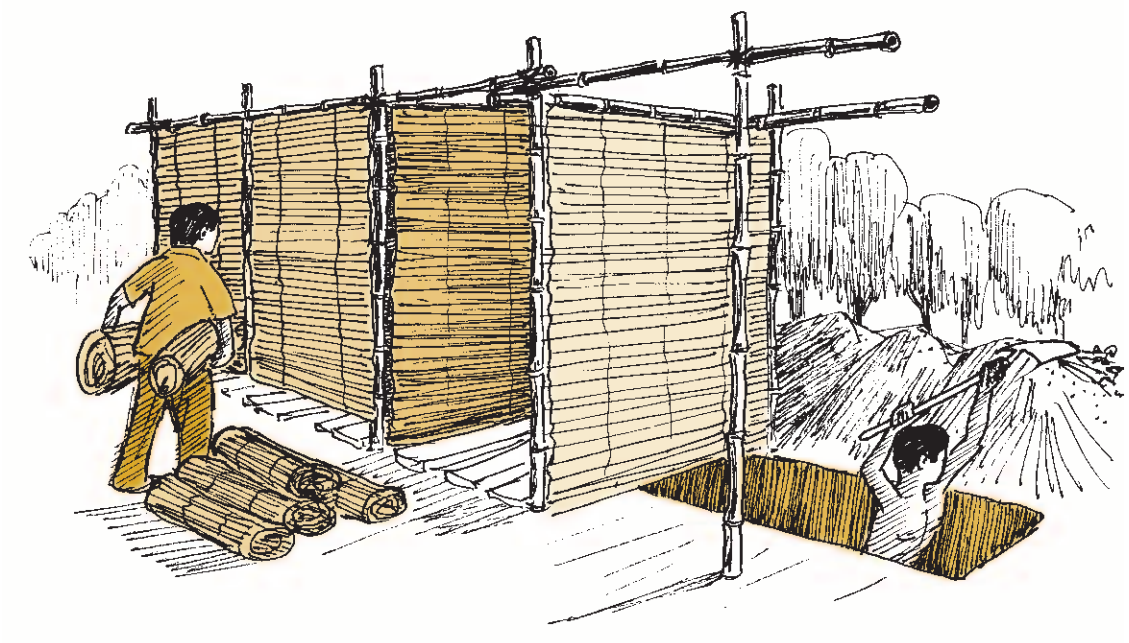
- Do young children use latrines in our area? If not, why do they not use them? What happens to their faeces?
- Do we have any traditional beliefs about children's faeces? How do these beliefs affect our behaviour?
- Why is it important for children to learn the importance of using a latrine?
- What kind of fears do children here have about using latrines? Why are these fears sometimes justified? How can we respond to these fears?
- How can we encourage the use of children's latrines in our area?
- At what age should children be able to use an adult latrine?
- Are there any opportunities for us to help young children to learn about the importance of using latrines?
- Does the school have latrines for boys and girls? How can we work together to provide or improve the latrines in our local school?

Emergency latrines

Latrines take a long time to plan and build well. Sometimes there may be situations when there is no time to build proper latrines, such as after disasters. Set aside an area of land to use as a public latrine and make sure everyone uses this. Dig two separate trenches at the edge furthest away from where people are living, one for men and one for women. Provide some kind of screening for privacy. Make sure the women's latrine is in a safe place so they will not be afraid to use it.

When one trench is nearly full, cover it with soil and dig another trench next to it. Starting at the farthest edge prevents people from needing to walk over used trenches. Though people may not be too happy using an emergency latrine, it will protect their health and keep water and food supplies safe. It may also avoid the risk of cholera and other diseases.

Cleaning materials may need to be provided – paper, leaves or water, depending on the situation and cultural practices. Water used for cleaning the body after passing faeces will always contain microbes. Make sure containers are cleaned regularly and this water is disposed of safely. It is also very important that water and soap is provided to allow people to wash their hands.



Discussion W25

- Does anyone have any experience of emergency situations? What kind of latrines, if any, were available? What were the results?
- This type of emergency latrine would not take too long to organise. However, it would probably be much harder to make sure everybody uses it. How could this be done?
- What possible risks would women and young girls experience in using this kind of latrine? What could be done to reduce this risk?
- What kind of materials could be used to provide simple screens for privacy? How could these be made and used?
- In an emergency it is easy to think that 'other people' should organise water supplies and latrines. However, who would have authority to do this in our community? What kind of training might help them to be ready to respond if necessary?

Sharing the messages

People are more likely to respond to positive messages that respect their reasons for doing things, rather than to warnings about dirt. Share messages about gaining respect, having healthy children, a clean environment and taking pride in, for example, a latrine.

Consider what the most important messages are for our community to improve people's health. These could include hand washing, covering food, washing water containers, purifying water for drinking, using a latrine and disposing of baby faeces safely. Effective messages should be short, positive and easy to adopt. Sometimes making them funny helps people to remember them.

Effective ways of sharing messages could include simple role-plays or songs. Children could learn the recipe for Oral Rehydration Salts in songs to help them remember it. Sensitive issues about latrines or women's hygiene may be easier to share using puppets. Games that teach simple messages can help children's learning. Messages that are clearly shared with children will also reach their parents. Religious groups can be very helpful in sharing messages that benefit the health of the community.

Discussion W26

- How have health messages been shared in the past? Which of these have proved most effective and why?
- How do people in our community like learning? How can we do more of this?
- Who are the best people to share the messages with children, young people, women, men and older people?
- Who are the people who would benefit most from gaining more understanding of the need for improved hygiene, safe water and sanitation? How can they be reached effectively?
- In some countries, health clubs have been formed where people learn and discuss together ways of improving hygiene and sanitation practices. Sometimes they have membership cards where people can tick off evidence of improved behaviour such as making and using a tippy tap, building and using a drying rack or building a latrine. What would be the response if health clubs were introduced in our community?
- What experience do we have in using role-plays or puppets to share messages? It is easier and more fun to do than people expect! Plan a simple role-play on the positive message that people feel is most important to share.

GAMES FOR CHILDREN

Adapt all kinds of simple games to share healthy living messages.

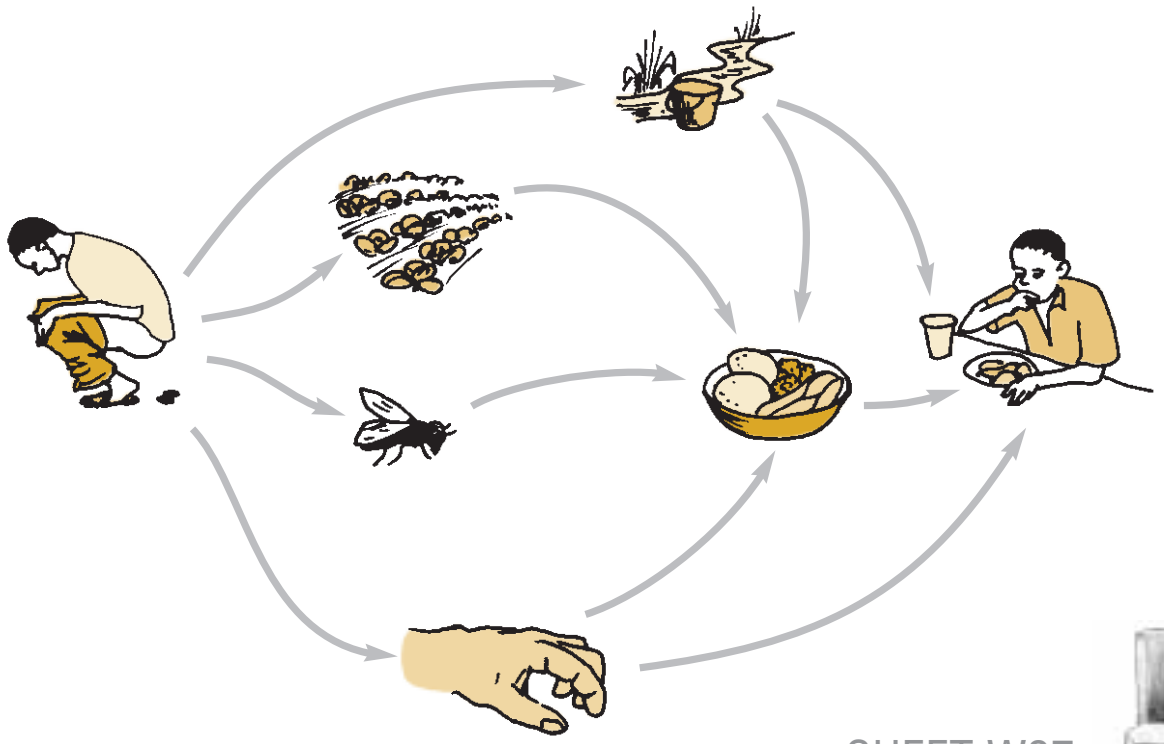
- Mime an action and ask children to guess what it is. These could include hand washing, purifying drinking water with SODIS and using a drying rack after washing dishes.
- Use a counting game where instead of saying 3 or a multiple of 3, children have to say 'hand washing' and instead of saying 7 or a multiple of 7, children have to say 'ORS'.
- Make word pairs that go together like soap and water, VIP and latrine, ORS and diarrhoea, bucket and well, tippy and tap, flies and disease, drying and rack. Write out each word and attach it to children's backs without them knowing what it is. Obviously, everyone else can see it! They ask questions to discover their word but people can only answer yes or no. When they discover what their word is they have to find the person with the matching word. The first pair to find each other wins.

Recording changes in understanding

After a time of sharing the messages learned from this Guide with people in the community, it is good to assess their impact. We need to know whether sharing new information has resulted in people changing their practices. We need to know if people are washing their hands after touching faeces and before handling food. We need to know if they are using latrines.

Practical change about where people get water, and how many latrines, tippy taps and dish racks there are, is fairly easy to record. However, personal information about people's beliefs, practices and understanding is much harder to find out.

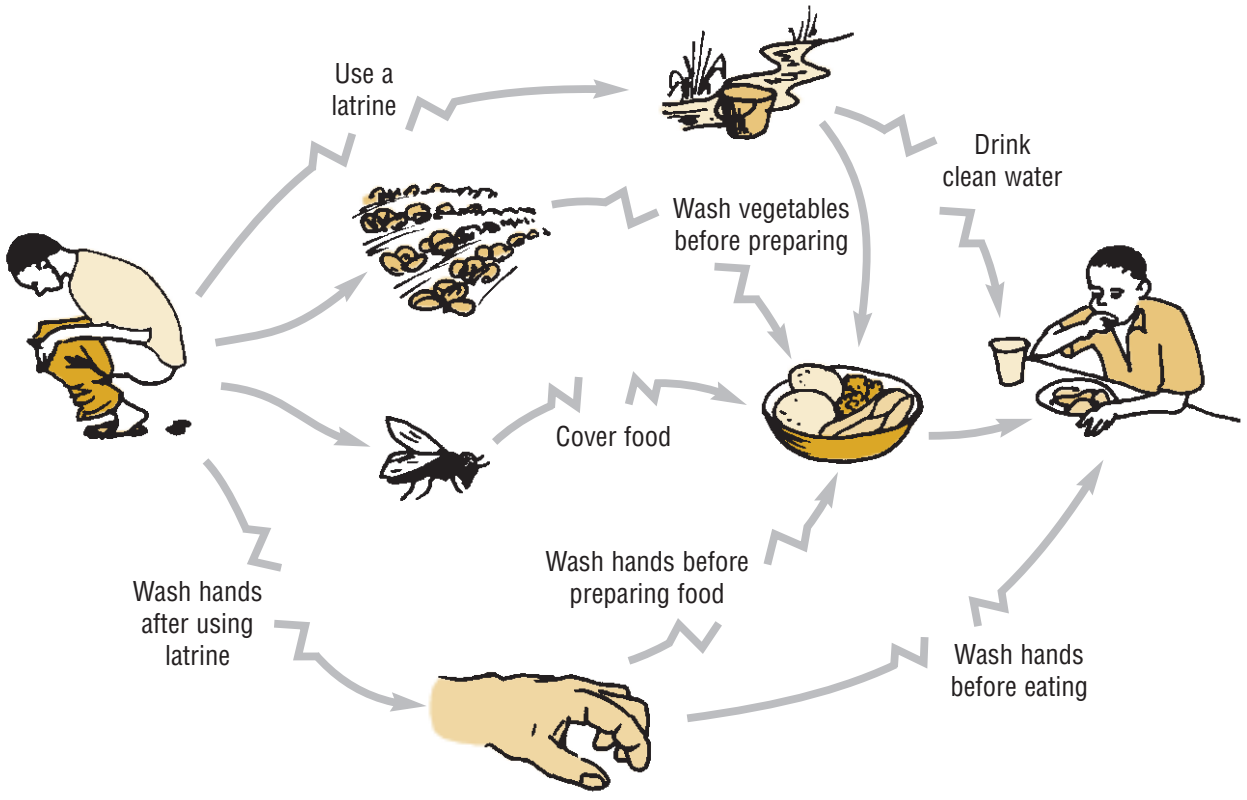
This diagram, which we looked at on page 12, describes all the different ways in which microbes from faeces get into our mouths and cause illness. Explain the diagram and help people discuss each of the seven possible routes of infection. For example, flies can land on faeces left in a field and then land on a plate of food that someone eats. Find out if people have learned about ways to break these routes of infection. Mark these on a copy of the diagram. These discussions will show how people's understanding has changed.



Discussion W27

- What sort of information do we need to gather to measure any change or improvement?
- Who is best able to gather this information?
- What change or indicators of change are we wanting to see in people? How can we measure these?
- How could records from the health clinic provide useful information to measure improvements in health?
- How will this information be stored for the future? How can the findings be shared and used most effectively?
- Who needs to have this information?
- How can the findings be shared for the good of the community?

WAYS OF BREAKING THE ROUTES OF INFECTION



Bible studies

These Bible studies are designed to use in small groups. They may provide a useful introduction to a meeting where different topics from the Guide are being discussed. Choose a study that will be linked to the topic you plan to study or that is relevant to your situation. During the studies, encourage people to think about what they read, to discuss the meaning and the implications of what they learn and, finally, to pray together about what they have learnt.

BIBLE STUDY 1

Water for life

The Bible has over 300 references to water and another 80 on rain.

- Which is the first verse that comes to your mind when you think about water?

The Bible looks at water in many different ways, using it as a symbol of destruction (Genesis 6-9), cleansing (Exodus 30:18), blessing (Jeremiah 17:8) and spiritual need (Psalm 42).

Read Deuteronomy 28:12 and Psalm 65:9.

- What is the Bible saying here about our need for water?
- What does it say about God's provision for our spiritual needs?

BIBLE STUDY 2

Spiritual cleansing

In the early chapters of Leviticus we learn of many rituals that were used to bring cleansing (Leviticus 16:4, 16:24 and Leviticus 17:15).

Read Psalm 24:3-4.

Reflect on our need for spiritual cleansing. Jesus' sacrifice provides us with means for spiritual cleansing.

- Are we careful to keep our spiritual bodies clean?

Read Isaiah 41:17 and reflect on God's promises to us.

- What can we do in our community to ensure that the poor and needy can receive God's gift of water?

Pray and consider God's provision of water and its symbolic meaning.

BIBLE STUDY 3

Water as a symbol of blessing

In the Bible, water is used as a symbol to show several different aspects of God's power. It can be used as a symbol of cleansing, as in the ceremonial washings of the Old Testament sacrificial system (for example: Exodus 30:18-21). It can be used as a symbol of destruction as with flooding (Genesis 6-9:17). But the most common use of water is as a symbol of blessing.

One of the many passages in the Bible which uses water to symbolise blessing is Isaiah 35. Much of the book of Isaiah concerns Isaiah's prophecies of God's judgement on the sins of the people. But this chapter looks ahead to God's glorious promises to those who trust him.

Read Isaiah 35:1-7.

- Why did the desert suddenly burst forth with joy?
- What were the signs of this joy – both in the desert, and in the lives of those who believe?

Read Isaiah 35:8-10.

The highway is God's path for us – the path which leads to eternal life. Remember that Isaiah wrote this prophecy hundreds of years before the coming of Christ.

- What signs are there in your life of the joy of trusting in God?

Pray that as the desert brought forth streams and springs of water because of God's presence, we also will be filled with the joy of believing and trusting in God.

BIBLE STUDY 4

Sanitation

Read Deuteronomy 23:12-14.

There is very little teaching in the Bible about sanitation apart from these verses. The Israelites were given these clear instructions thousands of years ago. However, a huge number of people still lack access to good sanitation.

- What responsibility do we have to ensure that everyone has adequate sanitation today?

Verse 14 talks about how this command was given to keep the camp holy, but the practice would also have kept the camp healthy. God was aware of the need for good sanitation long before people understood about the diseases caused by poor sanitation. Physical cleanness is linked to moral holiness.

- How much do our sanitation practices and personal hygiene show that we care about our own health and the health of our families?
- How does our way of life cause others to suffer illness because of lack of hygiene in and around our homes?

BIBLE STUDY 5

The Bible's teaching on hygiene

The Bible's main teaching about physical cleanliness appears in Leviticus 11-15. Some of the rules may seem strange and harsh to us. However, our modern understanding of how many diseases are transmitted shows other rules to be very sensible.

Read Leviticus 11:32-40 and 13:29-59.

The need for isolation and washing is often emphasised. Even today it may be difficult to distinguish between different types of infection and it may be better not to take chances. The transmission of diseases such as AIDS and hepatitis through blood and other body fluids shows clearly the need for care.

Read Philippians 2:4.

- What impact do our lives and hygiene practices have on others?
- How can we ensure that we consider the needs and interest of others first in terms of hygiene or cultural practices?
- Are others put at risk by our own poor hygiene? Is this a Christian attitude? (Philippians 2:4)

BIBLE STUDY 6

Holiness in practice

Read Leviticus 19:1-18.

The command to 'love your neighbour' first appears in Leviticus 19:18. It summarises verses 1-18, which contain various Old Testament rules and regulations. Look at this passage in Leviticus. Divide the commands (verses 3, 4, 9, 12, 14, 16 and 18) into those concerned with:

- worshipping God
- personal holiness
- holy living standards in relation to other people.

These commands are given with a note of authority. Whose authority is this? Note the general nature of some commands (verses 2, 3 and 11) and the precise detail of others (verses 5-9, 13 and 14). God wants us to be holy, both in large matters and in the small details of our daily lives.

- In verses 9 and 14, how does God's law make provision for the poor and for 'outsiders'?
- How can we care for the disadvantaged as individuals, within our family, and within our church?
- How can we express love and care for those suffering from ill health in our community?

BIBLE STUDY 7

Seen and unseen

Microbes are invisible, yet they spread causing sickness, diarrhoea and even death. We need to keep ourselves and our water and food clean.

Sin, like microbes, can also be hidden and increasingly damaging if not controlled. Even when a person looks clean and free from sin on the outside, their hearts may not be clean.

Read Matthew 23:25-28.

- What did the Pharisees look like on the outside?
- What were they really like?
- Would Jesus say anything different to our religious leaders or to us today?
- The Pharisees looked really clean. Does this story help our understanding of microbes and their impact?

Read James 1:13-15.

- What happens to uncontrolled evil desires?

All we think and do matters. Our words and actions are multiplied either by Satan or by God.

- Do our thoughts and actions spread evil or help to further God's Kingdom?

Meditate on 1 Corinthians 10:31.

BIBLE STUDY 8

Feet washing

There are many references to feet washing in the Bible (Genesis 18:4; 19:2; 24:32; 43:24; 1 Samuel 25:41 and 1 Timothy 5:9-10). Washing feet was not done just for reasons of hygiene but also to make visitors feel comfortable and welcomed.

Read John 13:1-17.

- What is said about Jesus in verse 3?
- What does he do in response to this? (verses 4-5)
- How does Peter react to Jesus washing his feet? (verses 6-9)
- What cleanliness is Jesus talking about in verses 10-11?
- What challenge are we given in verses 12-17?

Read Luke 7:36-50.

Here we read about another shared mealtime.

- What does Jesus say in verse 47 that inspires the woman to wash, kiss and perfume his feet?
- Do we love him as this woman loved him?
- How might we 'wash the feet' of those in our community?

BIBLE STUDY 9

The need for cleanliness

We need clean water supplies and food to keep us healthy and growing. The physical and spiritual parts of our lives are linked. Each affects the other part. Physical washing can be symbolic of spiritual cleansing. The Old Testament provides many examples of the need to clean ourselves before worshipping God.

Read Genesis 35:1-5.

- What did Jacob's household do before building an altar to God?
- What impact did they then make on the towns around them?

Read Exodus 30:17-21.

- What did Aaron and his sons do before entering the Holy Tent of Meeting or making offerings?

Read Numbers 8:5-15.

- In verses 11 and 15, what did God command Moses to do to the Levites (verses 5-6) to prepare them for the work of the Lord?
- In Hebrews 10:22, what are we able to do when our 'bodies are washed' and our 'hearts are clean'?

BIBLE STUDY 10

Washing clean through baptism

Baptism involves a symbolic cleaning and washing away of our sin.

Read Romans 6:1-14.

In baptism we are buried with Christ, dying to our sin. Then in unity with Christ we are raised to a new life. How does God then use us? (see verse 13).

Read Mark 1:1-5.

- In verse 5, what did people do at their baptism?
- What did they receive in verse 4?

Why are we called to be holy? See for example Leviticus 20:7; Isaiah 6:3 and Ephesians 1:4. What happens when we are not? See Isaiah 35:8; Ezekiel 36:20-21 and Ephesians 5:5.

BIBLE STUDY 11

The result of being clean

Dirty water has only limited uses such as watering crops. As it is cleaned and purified, it can be used for washing, cooking and drinking to sustain life. Similarly, God can transform our lives.

Read Ephesians 5:25-27.

- How did Christ make his church holy?
- How do we continue to make the church dirty and unholy by our lives?
- What is the result of Christ's sacrifice for our church today?
- How does God help us get rid of the bad things?

God became man in Jesus so that we might become children of God (John 1:12-14) and God's chosen people (1 Peter 2:9-10).

Read 2 Timothy 2:20-21.

- What happens once we have been cleaned from dirty or unholy things?

  Read John 4:13-14 and John 7:37-39.

  Jesus gives us a very special 'water' to help us live for Him.

- What is this water?
- Are we blessed by this water?

BIBLE STUDY 12

Staying clean

Once we have clean water supplies and healthy well-cooked food we need to protect them. What forms of protection have we learnt about in this Guide?

- Are we using the forms of protection that we need in our community?

  Read Ephesians 6:10-18.

  Once we have come to God, he helps to defend us against Satan's attacks if we use the armour he provides.

- How does the Belt of truth set us free (John 8:32) and clean us? (John 17:17)
- In 1 Thessalonians 5:8, how will the Breastplate of righteousness keep us free from sin through self-control?
- In Isaiah 52:7, what is the purpose of our feet in sharing the gospel?
- How will the Shield of our faith keep us safe? (See 2 Chronicles 20:20; 1 John 5:4)
- Are we wearing the Helmet of salvation by trusting in God? (See 1 Thessalonians 5:8-10)
- How does the word of God act like a sword? (See Jeremiah 23:29)
- How are we using all these different parts of God's armour in our Christian life to protect us?
- And overall we have the weapon of prayer (verse 18) to protect all we do so that we are 'strong in the Lord and in His mighty strength'.

  Take some time now to pray for God's protection in all we do.

Recommended reading

Sanitation and cleanliness for a healthy environment (2005) by J Conant. Hesperian Foundation and UNDP

Encouraging change: Sustainable steps in water supply, sanitation and hygiene (2003) by S Sutton and H Nkoloma. Zambian Board of Health and DFID and available from TALC.

Low cost water source improvements: Practical guidelines for fieldworkers (2004) by S Sutton. TALC

Where there is no doctor: a village health care handbook (1993) by D Werner. Hesperian Foundation

Engineering in emergencies: a practical guide for relief workers (2002) by J Davis and R Lambert. ITDG, London. ISBN 185339 521 8

PHAST Step-by-step guide: a participatory approach for the control of diarrhoeal disease (1998). Produced by WHO, SIDA and UNDP–World Bank Water and Sanitation programme. ISBN 011 951 8082

Just stir gently: The way to mix hygiene education with water supply and sanitation by M Boot (1991). IRC (International Water and Sanitation Centre), The Netherlands, Technical Paper Series 29. ISBN 90 6687 016 8

Hygiene education in water supply and sanitation programmes by L Burgers, M Boot and C Van Wijk-Sijbesma (1988). IRC, The Netherlands, Technical Paper Series 27. ISBN 90 6687 012 51

Hygiene promotion: A practical manual for relief and development by S Ferron, J Morgan and M O'Reilly (2000). Produced by CARE International and ITDG Publishing. ISBN 1 85339 505 6

Facts for life (2002) UNICEF, New York

Happy, healthy and hygienic: how to set up a hygiene promotion programme (1998) by Valerie Curtis and B. Kanki. UNICEF, New York.

Child-to-Child Readers: A series of children's readers using stories based around public health information. The titles include: ***Dirty water***, ***A simple cure***, ***The cholera crisis***, ***Flies*** and ***The plastic throne.***

Child-to-child: Resource book Part 2 – Child-to-child activity sheets by D Bailey, H Hawes, G Bonati (1992). London, Child-to-child Trust

Footsteps Vol. 30 (1997) and Vol. 51 (2002). Tearfund

Useful websites

www.sodis.ch SODIS

www.wateraid.org.uk Wateraid

www.who.int WHO
Healthy villages – available free in English and Spanish

www.sanplat.com Sanplat production

www.unicef.org/ffl/ UNICEF

www.child-to-child.org/resources/ Child-to-Child

www.irc.nl International Water and Sanitation Centre

www.lboro.ac.uk/well WELL publications – notes and technical briefs available free

Appendix Drawings for exercise on W7 (page 20)

Notes

Notes

Further information

This guide is one of a series published by Tearfund.

Others in the series include:

- *Building the capacity of local groups*
- *Improving food security*
- *Credit and loans for small businesses*
- *Agroforestry*
- *Preparing for disaster*
- *Mobilising the community*
- *Healthy eating*
- *Mobilising the church*
- *Responding more effectively to HIV and AIDS*

All are available in English and most are available in French, Spanish and Portuguese.

Further details, order forms and sample pages from these guides are available on the website: www.tearfund.org/tilz

For organisations wishing to translate these materials into other languages, a CD Rom with design files and layout is available, and there are full details on the website.

For organisations planning workshops to train people to either use or translate PILLARS materials, a workbook is also available.

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