

Bacteriological testing

In 1990, at the end of the International Drinking Water Supply and Sanitation Decade, worldwide sanitation coverage was estimated by WHO to be 72 per cent in urban areas and 49 per cent in rural areas.

Large numbers of people defecate in the open air, particularly in rural and peri-urban areas of large cities. This increases the risk of the spread of infectious diarrhoeal disease such as cholera.

Proper sanitary facilities, such as latrines, should be built and used wherever possible instead of defecating in the open. The building of latrines is not, however, enough to stop open-air defecation completely. People must also wish to use the latrines.

Open-air defecation is a special problem where there are large numbers of travellers and at markets, festivals and other events attracting a large crowd. Children and some other sectors of the population may prefer to defecate in the open. It is very important that local hygiene education programmes discuss the dangers of defecating in the open field, and how they can be reduced. People should, however, always be encouraged to build latrines and use them.

The first step in improving defecation practices is to understand where people choose to defecate ; this may be, for example, in the forest, in the bush, on the beach, or on the riverbank.

In countries where people practise anal cleansing with water, it is very likely that they defecate in or near to water sources. It is almost certain that this will cause contamination when excreta are washed into the water by rain. The same is true when people defecate in wet paddy fields, as the water will eventually reach a stream or river. People should be encouraged to take the water they need for anal cleansing with them, in a container, and not defecate close to open water.

Using local hygiene campaigns, people should be shown how to dig a shallow hole to defecate into and then be encouraged to cover their excreta with earth. This will reduce the likelihood of animals and flies coming into contact with excreta. It is often difficult to convince people that they should take the extra time needed to dig a hole every time. If great care is taken to help people to understand the reasons, they can see that there are advantages, particularly if there is a threat of cholera or other diarrhoeal disease in the area. Hygiene promotion techniques are described in more detail in Series 4 of these Fact Sheets.

During an epidemic

As an emergency measure whilst latrines are being built, each household should dig a pit of minimum dimensions 0.3 x 0.3 x 0.75 metres depth, at least 6 metres away from the house and the minimum safe distance from any water source. The latter is site specific and should be established for each water source on the basis on local hydrological and hydrogeological conditions.

A distance of 30 metres has been suggested for standard practice. It is recommended that this figure is taken as a guide to establishing a minimum safe distance in the absence of local studies which would lead to the adoption of smaller distances.

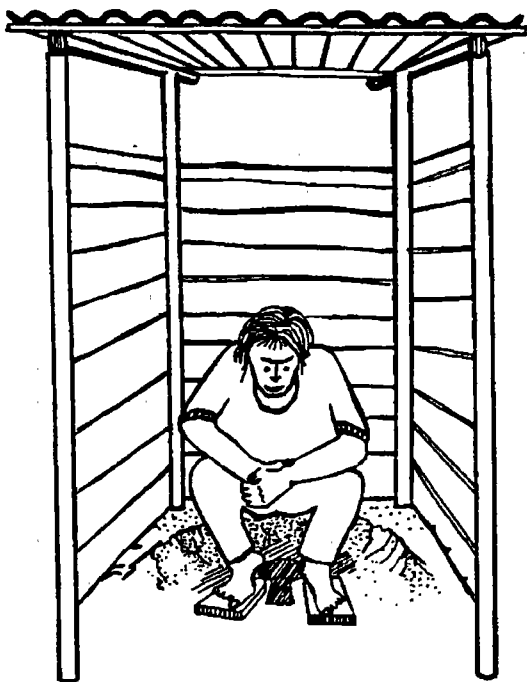


Figure 1. Emergency latrine

Family members should use this pit to defecate and urinate. They should cover their excreta over with a layer of earth each time they use the latrine. A shelter may be built around the pit from whatever materials are available to provide privacy and protection (see Figure 1).

The emergency latrine should not be promoted as a permanent solution to excreta disposal. Fact Sheet 3.1 provides information to help select the most appropriate excreta disposal option.

Teach children to use latrines

Many children will not use a latrine. This may be because the latrine has a deep pit and is dark and frightening. Also, many small children think that snakes or monsters live in the pit, perhaps because adults or other children have told them this. It is very important to get children used to using the latrine from an early age so that it becomes a habit. It is usually much harder to get adults to start using latrines and to change their hygiene habits.

Many people believe that faeces from children and babies are harmless. This is not true. A child's faeces contains just as many germs as an adult's faeces and must be disposed of safely, by throwing the faeces into the latrine or burying them. Great care should be taken to wash the baby with soap and water after defecation and to wash hands after handling babies' excreta. Babies' nappies (diapers) must also be washed carefully with soap and water.

Emergency sanitation

Where there are overcrowded conditions, for example in urban areas or refugee camps, then it is important to provide temporary latrines as quickly as possible. If communal latrines are to be constructed as a temporary solution, no more than 20 people should use one latrine and one or more individuals must take responsibility for daily cleaning and maintenance. A temporary trench latrine can be constructed for the short-term, whilst better latrines are built. A trench latrine can be built as described below.

Building an emergency trench latrine

- Choose a convenient site the minimum safe distance from water sources.
- Dig a trench 0.3 metres wide by 0.75 metres deep. The length of the trench will depend on the number of users ; about 0.75 metres per user is enough. Two trenches about 5 metres long can serve about 100 people for a few days.
- Place boards along each side of the trench for people to stand on. Private cubicles can be made by building screens from local materials.
- Leave the earth from digging the pit in a pile near the trench, with a shovel. Each person covers over their faeces with a shovelful of earth to keep away flies and reduce odours.
- Store stocks of the traditional anal cleansing material used in the area close by, and top them up regularly.
- Close the trench when it is within 0.25 metres of ground level. Cover it over with earth and pack it down tightly. The area should not be disturbed for two years.

Building latrines

In the long term, it is very important to ensure that there are safe means for excreta disposal and to encourage people to use them, to make sure that diarrhoeal diseases such as cholera do not spread. Fact Sheet 3.1 provides information on how to select the most appropriate excreta disposal option.