



Hygiene Promotion
Training for Hygiene Promoters

**Module 2
Handouts**

&

**Module 3
Handouts**



This manual contains training materials and handouts to enable facilitators to rapidly prepare training for different levels of hygiene promoters.

It can also serve as a resource for self directed learning by both hygiene promoters and others involved in supporting or managing WASH interventions.

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Introduction

The training sessions are divided into four key modules. For Modules 1, 2, and 3 the sessions have also been structured around 3 Key Knowledge and Skill Areas: context, skills and job specifics. Review & Evaluation of these areas is also a vital part of the training as shown below.

| | | | |
|--------------------------------------|-----------------------------------|-------------------------------------------------|-----------------------------------------------|
| Module 1 Essential to Know | Module 2 Useful to Know | Module 3 Situation or agency specific | Module 4 Sessions for Co-ordinators |
|--------------------------------------|-----------------------------------|-------------------------------------------------|-----------------------------------------------|

| Training Sessions | Context | Hygiene Promotion Skills | Hygiene Promotion Job specifics | Review & Evaluation |
|-------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Content | Learning about the current context, background information and hygiene risks | Learning about the skills, methods and approaches used in HP work. | Learning about the specific job participants are expected to do and practice using the skills | Reviewing course and session objectives. Monitoring work and evaluating learning |

Unlike Modules 1 -3 the sessions in **Module 4** have been grouped into 4 categories which relate to the generic job description for a hygiene promotion coordinator:

- Programme Approach,
- Information Management,
- Implementation
- Resources Management.

The handouts are optional and may need to be modified to suit the specific context by the trainer. Additional handouts may be provided where necessary by making use of the PowerPoint slides as indicated in the session plans. The majority of handouts have been taken or adapted from existing material and where applicable the sources are given. They have been grouped together in one manual to facilitate use. Handouts do not exist for every session.

List of All Handouts & Resources

| Module 1 Essential to Know | | | |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Session | Handouts/PowerPoint Slides | Session | Handouts/PowerPoint Slides |
| WASH cluster and co-ordination | <i>Cluster Overview</i> | Communication skills | <i>Listening Techniques Observation and Listening - slide 31</i> |
| Public health in emergencies | <i>Public Health Model Slide 4</i> | Communication skills II | <i>Communication Worksheet Training and communication skills</i> |
| Hygiene promotion in emergencies | <i>Terminology and Definitions Hygiene promotion briefing paper Hygiene Promotion Slides 10-20</i> | Participatory methods | <i>Facilitation skills for participatory methods Instructions for exercises</i> |
| Key water and sanitation priorities | <i>Fewtrell Diagram - Slide 22</i> | Adult learning | <i>How adults learn PowerPoint slide 41</i> |
| Key actions to prevent diarrhoea | <i>F diagram (also slides 24 & 25) Instructions for management of diarrhoea</i> | Focus group discussion | <i>Focus Group Discussion Focus group discussion sample questions Analysing qualitative data and reporting</i> |
| Participation and Accountability | <i>Humanitarian accountability and hygiene promotion PowerPoint slide 35</i> | Job Description | <i>Hygiene Promoter job description PowerPoint Slide 43</i> |
| Assessment and baseline | <i>Qualitative and Quantitative Assessment Leading Questions Assessment Methods Overview of Data Collection for Hygiene Promotion Example rapid assessment checklist Example observation guide for an exploratory walk PowerPoint Slides 45 - 48</i> | Hygiene Kits: Selection & Distribution | <i>Hygiene Related Non Food Items Briefing Paper Hygiene Kit Monitoring Form</i> |
| Selection and support of Community Mobilisers | <i>Information on community mobilisers and example job description Community mobiliser attributes</i> | Community Involvement Design of facilities | <i>PowerPoint Slides 50 and 51</i> |
| Introduction to Working with Children | <i>Child protection good practice guide Child Protection Scenarios Child to Child Activity Sheets</i> | Training Practice | <i>HP 2 Training for Community Mobilisers</i> |

| | | | |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <i>Example activities for children Children and Learning PowerPoint slides 53-56</i> | | |
| Monitoring | <i>Example of a WASH logical framework matrix Indicators for monitoring hygiene promotion in emergencies Example hygiene promotion monitoring form Examples of PHAST monitoring forms Monitoring Exercise Example SMART and not so SMART indicators</i> | Example review session | <i>Example Quiz Sheets</i> |
| Module 2 Useful to Know | | | |
| Session | Handouts/PowerPoint Slides | Session | Handouts/PowerPoint Slides |
| Water & Sanitation Related Diseases | <i>PowerPoint slide 3 F diagram WASH related diseases Table of transmission of diseases Disease fact sheets (Hepatitis A, Hepatitis E, Malaria, Cholera, Dengue, Diarrhoea, Scabies) Pair wise ranking instructions</i> | Introduction to Sphere | <i>Minimum standards for water, sanitation and hygiene promotion & Minimum standards for shelter and non food items (available from www.sphereproject.org) PowerPoint Slide 5-9 Hygiene Promotion and Sphere</i> |
| Introduction to Gender | <i>Gender Roles Exercise Gender Checklist PowerPoint Slide 11-13</i> | Introduction to Protection | <i>Protection Handout</i> |
| Introduction to HIV/AIDS | <i>Hygiene Promotion and HIV/AIDS HIV transmission three pile sorting exercise</i> | Community Participation | <i>Gender and community participation worksheet Participation Ladder Exercise PowerPoint Slides 11-13 Roles and statements for the power walk (optional exercise) How to do Venn Diagrams (optional exercise)</i> |
| Behaviour Change and Social Change | <i>Catalyse Model - see slide 21 Behaviour Change Models Communication for social change and hygiene promotion PowerPoint Slides 19-22</i> | Use of Visual Aids | <i>Guidelines for designing posters Designing a leaflet PowerPoint Slides 24-26</i> |
| Other Promotional Methods | <i>Overview of social marketing Overview of PHAST Overview of Child to</i> | Community Management of Facilities | <i>Oxfam Briefing Document Bujumbura Case Study Roles of Committee Members</i> |

| | | | |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <i>Child Using role plays and drama PowerPoint Slides 28-32</i> | | |
| Module 3 Situation or Agency specific sessions | | | |
| Session | Handouts/PowerPoint Slides | Session | Handouts/PowerPoint Slides |
| Introduction to Baseline Survey | <i>Designing baseline study PowerPoint Slides 3-6</i> | Questionnaire Survey | <i>Example Questionnaire Guidance Notes for carrying out surveys</i> |
| Use of ORT | <i>'F' Diagram Instructions for management of diarrhoea (see session on Key Actions to Prevent Diarrhoea)</i> | Cholera Control Issues | <i>Cholera Toolkit Factsheet on cholera (from session on water and sanitation related diseases)</i> |
| Malaria Control Issues | <i>Malaria Quiz PowerPoint slides 8 and 9 Focus group discussion framework RBM Information Sheet (see www.rbm.who.int/multimedia/rbminfosheets.html)</i> | | |
| Module 4 Optional sessions for HP Co-ordinators (available end 2009) | | | |
| Session | Handouts/PowerPoint Slides | Session | Handouts/PowerPoint Slides |
| Evidence Base | Evidence Base Background One page handouts on PHAST and Social Marketing (from Module 2) PowerPoint Slides 2-4 | Development versus Emergency | Factors affecting sustainability of water systems PowerPoint Slides 5-15 |
| Managing Accountability | Accountability discussion group work Sources of Humanitarian principles Listen First PowerPoint Slides 16-20 | Advocacy | WASH advocacy in emergencies Planning advocacy initiatives WASH advocacy case study WASH advocacy case study analysis PowerPoint Slides 22-26 |
| Designing and managing an assessment | WASH CAT assessment flowcharts Basic checklist for planning hygiene promotion PowerPoint Slides 27-31 | Data analysis and reporting | Analysing qualitative & quantitative data Example questionnaire (see Module 3) Exercise on mortality rates PowerPoint Slides 32-34 |
| Planning & Logical Framework | Example WASH Logframe Matrix PowerPoint Slides 35-43 | Monitoring for managers | Example hygiene promotion monitoring plan Participatory monitoring and measuring participation PowerPoint Slides 45 |
| Impact & Evaluation | Evaluation Criteria PowerPoint Slide 47 | Promoting Integration | Teamwork and integration PowerPoint Slide 54 |
| Co-ordination Responsibilities | Draft Health and Nutrition WASH Matrix | Coordinator Job Description | Hygiene Promotion Co-ordinator Job Description |

| | | | |
|---------------------------------|------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------|
| | Draft Education WASH Matrix Draft Emergency Shelter WASH Matrix PowerPoint Slides 48-51 | | Learning and Professional development |
| Overview of HP Intervention | Hygiene Promotion Steps Example Hygiene Promotion Activities PowerPoint Slides 53-57 | Communication strategy | Tajikistan discussion handout Developing messages PowerPoint Slide 59 |
| Managing meetings | Effective meetings Multi-language meetings PowerPoint Slide 61 | Developing Partnerships | Developing Partnerships Stakeholder analysis Example Memorandum of Understanding PowerPoint Slide 63 |
| Recruitment and Managing Others | Recruiting and selecting staff Human Resources Issues Group development and team working | Logistics and Financial Management | Managing finance |

Module 2: Useful to know available handouts

Context

Water & Sanitation Related Diseases

- Table of transmission of diseases
- Disease fact sheets
- WASH related diseases
- Pair wise Ranking Instructions

The Sphere Project

Minimum standards for water, sanitation and hygiene promotion (*items (available from www.sphereproject.org)*)

Minimum standards for shelter and non food items (*items (available from www.sphereproject.org)*)

- Hygiene Promotion and Sphere

Introduction to Gender

- Gender checklist

Introduction to Protection¹

- Protection Handout

Introduction to HIV/AIDS

- Hygiene Promotion and HIV/AIDS
- HIV transmission three pile sorting exercise

Community Participation

- Gender and Community Participation Worksheet
- Participation Ladder Exercise
- Roles and Statements for the Power Walk (optional exercise)
- How to do a Venn Diagram (optional exercise)

¹ This training session is adapted from OXFAM Improving the safety of civilians

Transmission patterns and preventive measures for water- and sanitation-related diseases common in emergency situations

| Infection | Transmission pattern | Human excreta disposal | Solid waste disposal | Waste water disposal | Safe water chain | Hand-washing | Food hygiene | Washing clothes and body |
|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------|----------------------|------------------|--------------|--------------|--------------------------|
| Various types of diarrhoea, dysentery, poliomyelitis, typhoid and paratyphoid, hepatitis A | From human faeces to mouth (faecal-oral) via multiple routes of faecal contaminated water, fingers and hands, food, soil and surfaces. Animal faeces may also contain diarrhoeal disease organisms. | ✓ | ✓ | | ✓ | ✓ | ✓ | |
| Roundworm (Ascariasis), Whipworm (Trichuriasis) | From faeces to mouth: Worm eggs in human faeces have to reach soil to develop into an infective stage before being ingested through raw food, dirty hands and playing with things that have been in contact with infected soil. Soil on feet and shoes can transport the eggs long distances. Animals eating human faeces pass on the eggs in their own faeces. | ✓ | ✓ | | | ✓ | ✓ | |
| Hookworm | From faeces to skin (especially feet): Worm eggs in the faeces have to reach moist soil, where they hatch into larvae which enter the skin of people's feet. | ✓ | | | | | | |
| Schistosomiasis (Bilharzia) | From faeces to urine to skin: Worm eggs in human faeces or urine have to reach water where they hatch and enter snails. In the snails they develop and are passed on as free swimming "cercariae" which penetrate the skin when people come into contact with infested waters. | ✓ | | | ✓ | | | |
| Scabies, Ringworm, Yaws | From skin to skin: Both through direct skin contact and through sharing of clothes, bedclothes and towels. | | | | | | | ✓ |
| Trachoma, Conjunctivitis | From eyes to eyes: Both direct contact with the discharge from an infected eye and through contact with articles soiled by a discharge, such as towels, bedding, clothing, wash basins, washing water. Flies may also act as transmission agents. | | | | | | | ✓ |
| Louse-borne typhus, Louse-borne relapsing fever | From person to person: Through bites of body lice which travel from person to person contact and through sharing clothes and bedclothes, particularly when underwear is not regularly washed. | | | | | | | ✓ |
| Malaria, Dengue fever, Yellow fever | From person to person through the bite of infected mosquitoes. The mosquito breeds in standing water. | | | ✓ | | | | |
| Leishmaniasis | From person to person through the bite of an infected phlebotomine sandflies. The sandflies breed in damp organic debris including excreta and solid waste. | ✓ | ✓ | | | | | |

Adapted from Boot, M.T., and Cairncross, A., 1993 and Ministry of Health, Uganda (1998a and b)

Faecal-Oral Diseases²

The diseases in this category are caused by faeces from a person infected with the disease entering the mouth of another person. Different faecal-oral diseases include diarrhoea (dysentery, cholera, giardia), typhoid and intestinal worms.

Symptoms of diarrhoea

Diarrhoea is the frequent passing of watery stools and there are many different types. It is one of the major causes of morbidity and mortality especially in refugee situations but even in non-emergency situations is responsible for a significant proportion of the burden of disease. Diarrhoea can be caused by bacteria, protozoa or viruses and these organisms may also cause other symptoms such as fever and vomiting. The passing of frequent stools can be seen as the body's normal response to rid it of the harmful disease causing organisms. If the fluid lost in the diarrhoea is not replaced, the person infected may become severely dehydrated. Dehydration can cause death, especially in the very young and old. People who are poorly nourished will also be more at risk from the effects of diarrhoea.

The organisms that cause diarrhoea are present in large numbers in the faeces and people are infected with these organisms through the mouth. These diseases are thus known as faecal-oral diseases. Even if only a few organisms are swallowed, these will multiply in the intestines and cause diarrhoea.

Even babies excrete disease causing organisms in their faeces. In fact, infants' faeces contain more disease causing organisms per gram than there are in adults' faeces. As babies and young children are more susceptible to these diseases, their faeces should be considered more dangerous than adults' faeces

There are a variety of organisms that cause diarrhoea: the following represent only some of them. With the majority of diarrhoeas it may not be possible to diagnose a particular cause.

Dysentery

Dysentery is a form of bloody diarrhoea transmitted through the faecal-oral route. When people become infected, they excrete large numbers of the infective organisms in their stools. If the germs from these stools come into contact with food, water or hands then other people can swallow the germs and become infected.

A person with dysentery passes faeces containing blood. This is accompanied by fever, vomiting and stomach pains. It is usually caused by an organism known as *Shigella* which has a variety of different forms. *Shigella dysentery* is endemic in many countries in the tropics reaching its highest incidence in the rainy seasons.

The disease usually occurs in two phases - an initial phase with fever and watery stools that can be very serious and cause dehydration and delirium especially in children. The latter phase is accompanied with loose, frequent stools containing blood and mucus and may cause severe discomfort and pain.

The only proven way of preventing infection and transmission of all types of *Shigella* dysentery is handwashing with soap (and breast-feeding for infants). Methods for preventing other forms of diarrhoea are also likely to reduce the transmission of dysentery.

Amoebic dysentery is the type of diarrhoea or dysentery (diarrhoea with blood) caused by the protozoa called *Amoeba*. *Amoeba* may also cause abscesses in the liver, which can cause extreme pain in the right upper belly. Usually the diarrhoea comes and goes and there may even be

² Adapted from Hygiene Promotion Manual: From relief to development

constipation. There are cramps in the belly and the person experiences an urgent need to pass stools even when there is very little stool there. With amoebas there is usually no fever.

Cholera

Cholera is caused by one particular type of bacteria called *Vibrio cholera*. Symptoms are usually mild but in a minority of cases there is a rapid onset of severe watery diarrhoea and vomiting and sometimes cramps in stomach, arms or legs. So much water and salts are lost from the body of a person with cholera that the person become thirsty, stops urinating, and quickly becomes weak and dehydrated. Dehydration can lead to circulatory collapse and death. To prevent dehydration, the person must drink at least the volume of fluid the body is losing. Drinking oral rehydration solution (ORS) will replace salts and sugars which have also been lost from the body. A vaccination against cholera is available but is not effective in controlling large outbreaks of cholera and is no longer recommended by the World Health Organisation.

Special measures to prevent the spread of cholera during an outbreak include:

- Try to identify the source of the cholera and whether particular areas or people are affected.
- Prevent use of contaminated water sources
- Intensify information campaign to promote hand washing, use of latrines and prompt identification and treatment (case finders may be necessary to identify patients on home visits)
- Establish emergency isolation centres for sick patients (special precautions for disinfection should be in operation here)
- Establish ORS centres to provide rehydration of less severe cases

Management of cholera patients in an outbreak:

- Help them to drink plenty of fluid (preferably ORS) to prevent the dehydration which kills
- Help them get medical attention immediately
- Dispose of faeces in a latrine
- Wash hands frequently and thoroughly with soap and water

Typhoid

Typhoid is a faecal-oral disease causing loose stools and a gradually increasing fever often accompanied by a relatively slow pulse. People with typhoid fever usually feel very unwell with generalised aches and pains and loss of appetite. Delirium (not being able to think clearly or make sense) may also be present as the illness progresses. The organism that causes typhoid is known as *Salmonella typhi*. The illness may often cause death if not treated.

Making oral rehydration solution

Drinking plenty of any drink available in the home will help to prevent dehydration.

Oral rehydration solution (ORS) is a special mixture of salts and sugars. When ORS solution is given to someone with dehydration, it will assist rehydration very quickly. ORS sachets are available for mixing with water. They can be obtained at health units, pharmacies and at other retail outlets.

To make ORS follow the instructions on the packet. Usually these are the instructions:

1. Add one sachet of ORS salts to one litre of drinking water,
2. Mix thoroughly,
3. Taste the drink to make sure it is less salty than tears.
4. Give a dehydrated person sips to drink every five minutes, day or night, until they begin to urinate normally.

If a person has diarrhoea and there is no ORS available, the person should drink plenty of other fluids such as water, porridge drinks, soups, coconut milk etc. to stop dehydration.

Giardia

Giardia is a faecal-oral disease. The symptoms are foul-smelling yellow diarrhoea which has bubbles in it. If blood or mucus is present it is probably not *Giardia*. In addition the belly is swollen and uncomfortable and produces lots of gas. *Giardia* can clear up without medical treatment but if the diarrhoea goes on for more than ten days it is best to seek medical advice. Long-term infection with *Giardia* can cause significant weight loss.

Hepatitis A

Hepatitis A is another faecal-oral disease. The disease causes acute inflammation of the liver. It usually starts with fever, chills, headaches and fatigue. A few days later there is often loss of appetite, vomiting, dark urine and light coloured faeces and jaundice of the skin or the outer coating of the eyeballs. In young children there may be few symptoms but in older people the jaundice may be severe and prolonged; complete liver failure may occur and the patient may lapse into a coma. There are other forms of hepatitis with similar symptoms but which are not transmitted through the faecal oral route but through blood and sexual contact.

Roundworm

As their name suggests these worms are round and can be up to 30 centimetres in length. They live in the intestines and feed off whatever food is ingested. This may make the person feel very weak as he/she is not getting enough food to eat. The worms may also block the intestine and cause problems with defecation.

The roundworm eggs follow the faecal oral route of transmission usually through unclean fingers or unwashed fruit and raw vegetables. Raw fruit and vegetables may become contaminated when people with roundworm defecate on the ground near to where vegetables or fruit are growing. Because children often put their fingers and other objects in their mouths they are often more at risk.

Whip worm

Whip worms are small thin worms and look like sewing threads. Infection occurs in a similar way to roundworm, but infection is less likely to be from eating contaminated fruit and raw vegetables as the eggs are more easily killed by drying or by direct sunlight.

Pin worm

Pin worms are very small, thin worms. The worms live in the intestines and at night they emerge from the anus to lay eggs around the opening. Pin worms cause severe itching around the anus. Whenever the person scratches, the eggs will contaminate the fingers and they may re-infect the person if they then put their fingers in their mouth.

Transmission and prevention of all faecal-oral diseases

The "5-Fs" diagram illustrates the main ways in which diarrhoea may be transmitted and the ways they can be prevented. It summarises the main ways in which faecal-oral diseases are spread - by faecal germs contaminating fields, fluids, fingers, flies or food, then eventually being swallowed. Most latrines will stop the 'fluids' and 'fields' transmission routes. Some of the more sophisticated latrines such as the ventilated improved pit (VIP) latrine and pour-flush latrine may also break the 'flies' route. Using a latrine does not prevent the contamination of hands and fingers. Good hygiene practices are needed for this, particularly the washing of hands with soap after contact with faeces (i.e. after defecation or after cleaning a child).

Hygiene practices that prevent all faecal-oral diseases

The magnitude of risk varies with different hygiene practices. Three practices are considered to be the most significant and cost-effective in preventing faecal-oral diseases. These are:

- Dispose of faeces safely. Use a latrine or bury faeces including young children's and babies'.
- Clean hands frequently with soap or ashes especially after defecation and after clearing up babies' faeces.

• Maintaining drinking water free from faecal contamination.
Other less important prevention methods are related to food hygiene:

- Wash hands with soap before preparing or eating food.
- Protect food from flies.
- Cook meals thoroughly.
- Wash raw vegetables and fruit in clean water before eating.

Hookworm

Hookworms are not strictly a faecal oral disease, instead they are a faecal-soil related disease. It can be one of the most damaging diseases of childhood and thrives in overcrowded unsanitary conditions. Hookworms are small and red in colour. They live in the intestines and feed on the blood by hooking onto the wall of the gut. If there are many worms the person may become anaemic and feel very weak and tired. Hookworm eggs are excreted in the stools. Once outside the body they develop into tiny worms (larvae). If someone walks on the contaminated ground without any shoes, the worms will pierce the skin of the feet, enter the bloodstream and eventually find their way to the lungs where they develop and feed on blood. When they are mature, the worms are coughed up from the lungs and if the person swallows them in the sputum, they enter the intestine, lay their eggs and the new host then excretes their eggs and the life-cycle starts again.

Prevention of Hookworm

- Build and use latrines.
- Children should not walk around barefoot.

Vector-Borne Diseases

Certain diseases are spread by insect vectors which live in, or breed near, water. This group includes such diseases as Malaria, Filariasis, Dengue fever, Yellow Fever, River Blindness, leishmaniasis, sleeping sickness and guinea worm infections. Refugees may be at particular risk because there may be diseases that they are not used to in the new area of settlement. They will therefore not have built up protection or immunity against these diseases.

Malaria

Malaria is the single most important vector-borne disease. The malaria spreading mosquitoes are all types of *Anopheles mosquitoes* and can be distinguished from other mosquitoes because they rest at an angle. There are several species of *Anopheles* mosquitoes, most can breed in still, unpolluted water including swamps and containers. Until recently mosquitoes could not breed above 3000m altitude but recently have started to breed at higher altitudes. *Anopheles* feed on people at night. It is only the females that bite because they need a blood meal every 2-3 days to develop each batch of 100-200 eggs. When a mosquito bites its victim to suck blood, it first injects saliva to prevent the blood from clotting and blocking its mouth-parts. In malaria-infected mosquitoes, the saliva contains infective forms of the parasite (*Plasmodium*). Most *Anopheles* fly up to 2km from their breeding site to feed. The adults live for about 30 days and many are resistant to insecticides. Different types of *Anopheles* mosquitoes live in different habitats, for example *Anopheles gambiae* larvae prefer the sun or partial shade and do not like thick bush. *Anopheles funestus* and *Anopheles mucheti*, which can also spread malaria, may infest shaded waters such as lakes and swamps. *Anopheles bwambiae* lives in hot salt springs in some places.

Malaria increased significantly when Rwandans from malaria free highland areas were forced to flee into lowland areas in Zaire and Tanzania during 1994.

Control of Malaria

Control of malaria and other mosquito borne infections is difficult and requires multiple measures. One of the most important measures may be the choice of settlement. Other measures that can be taken locally include:

- Removing anything that might collect stagnant water such as tin cans, broken bottles.
- Ensuring adequate drainage around shelters or houses and water collection points using ditches and soakaways.
- Cut grass and plants around the home or shelter where they may attract mosquitoes
- Covering water storage jars, rainwater tanks.
- Draining or filling in places where rain and washing water collects, including ponds or small puddles.
- Distributing bed nets.
- Planting of neem trees (*Azadirachta indica*) which repel mosquitoes.

Spraying the homes or water bodies in or around a camp or settlement may be an option but care must be taken to use trained personnel who are properly protected.

Schistosomiasis (bilharzia)

Blood flukes (Bilharzia, Schistosomiasis) is an infection caused by a kind of worm that gets into the bloodstream. It is becoming an increasingly common disease. In addition to being painful, causing weakness and fever, the kidneys or liver may be badly damaged, which can eventually cause death. There are several types of blood flukes including:

- *Schistosoma haematobium* which can cause blood in urine and is spread through infected urine,
- *Schistosoma mansoni* which causes bloody diarrhoea and is spread through faeces.

Blood flukes are not spread directly from person to person. Part of their life must be spent inside a certain small water snail (*Bulinus* species or *Biophalaria* species). An infected person urinates or defecates in water, passing the worm eggs into the water too. Worm eggs hatch and pass into the snails. Young stages of the worm leave the snail and then bury into the skin of a person who enters the water. In this way, someone who washes or swims in water where an infected person has urinated or defecated also becomes infected. To prevent blood flukes, the life cycle of the blood fluke must be disrupted.

Prevention of Schistosomiasis

Control and prevention of *Schistosomiasis* is difficult but measures include:

- Safe disposal of faeces and urine by all members of the community. (Even if one infected person urinates in snail infested water, those snails will continue to produce worms for a long period of time.)
- Avoid skin contact with contaminated water. This means avoiding swimming, washing, clothes washing, walking or playing in contaminated water.
- If contaminated water is collected all the worms will die within forty eight hours providing all the snails are removed and will then be safe for washing in.

Hygiene-Related Skin and Eye Infections

These diseases are not caught by drinking or bathing in infected water but like the diarrhoeas and some of the worm infections they can be prevented by the use of an increased quantity of water for personal and household hygiene.

Scabies

Scabies is a disease causing very itchy little bumps on the skin. The bumps can appear anywhere on the body but are most common between the fingers, on the wrists, around the waist, on the genitals and between the toes. The bumps are small mites living just under the skin which make it itch. Scratching the infected skin can help to spread the disease and may also lead to skin lesions that in turn can become infected with bacteria. Scabies is spread by touching the infected skin, clothes or bed-clothes of a person with scabies. The disease is very common in children and spreads most rapidly in overcrowded conditions.

Prevention of Scabies

- Bathe and change clothes regularly.
- Wash all clothes and bedding regularly and hang them in the sun.
- If possible, don't let untreated infected children have contact with uninfected children.

Ringworm

Ringworm is caused by a fungal infection. It appears as small rings on the skin usually on the head, between the legs, between the toes, and under the nails. If it appears on the head it often causes the hair to fall out and the scalp develops round scaly patches. Finger and toe nails infected with ringworm become rough and thick. The disease is very common in children and spreads most rapidly in overcrowded conditions.

Prevention of Ringworm

- Bathe and wash clothes regularly.
- Do not let a child with ringworm sleep with others.

Trachoma

Trachoma is a chronic eye infection that gets slowly worse. It may last for months or years and can cause blindness if not treated. Trachoma begins with red, watery eyes like conjunctivitis but after a month or more, small lumps develop inside the upper eyelids. These small lumps begin to disappear in a few years to leave scars which make the eyelids thick and may keep them from opening and closing all the way. The scarring may pull the eyelashes down into the eye, scratching the eye and causing blindness. Trachoma produces a discharge from the eyes and is usually spread when the discharge from an infected person comes into contact with another person by flies, contaminated fingers, cloths, towels or bedclothes. It is very common in dry, dusty areas where water is in short supply, particularly among young children.

Prevention of Trachoma

- Wash the face every day with soap and water.
- Keep flies away from the face.

Conjunctivitis

Conjunctivitis is another eye disease. It causes the eyes to become red and watery. The eye becomes sore. The eyelids often stick together after sleep. It is especially common in children. It is easily spread from one person to another person by flies, fingers, cloths, towels or bedclothes that have been contaminated by the eyes of an infected person.

Prevention of Conjunctivitis

- Wash the face every day with soap and water.
- Keep flies away from the face.

Typhus and Plague

Rats carry fleas which can spread diseases such as Typhus. Typhus can also be spread by lice or ticks carried by other animals. Typhus begins like a bad cold and leads to fever and aches and

pains in the head and muscles. A rash appears after a few days, first in the armpits and then on the body, then the arms and legs. The rash looks like small bruises. The plague is also spread by rodents. The symptoms include high fever, headache, muscular pains, shaking chills, and often pain in the groin or armpit. The fatality rate for people with plague is between 60-65%.

Prevention of Typhus and Plague

- Bathe and wash clothes regularly. De-louse the whole family regularly.
- Hang clothes and bedding out in the sun frequently.
- Keep animals such as dogs out of dwellings.
- Discourage rats by burning or burying rubbish and protecting food supplies
- Kill rats. Set traps and then drown or burn dead rats.

Poison should be used only if strict controls are possible as some rodents may be a source of human food or poison may be allowed to contaminate other food for human consumption

Diarrhoea Fact Sheet

(adapted from National Institute of Diabetes and Digestive and Kidney Diseases Factsheet)

Definition of Diarrhoea

Diarrhoea--loose, watery stools occurring more than three times in one day--is a common problem that usually lasts a day or two and goes away on its own without any special treatment. However, prolonged diarrhoea can be a sign of other problems.

Diarrhoea can cause dehydration, which means the body lacks enough fluid to function properly. Dehydration is particularly dangerous in children and the elderly, and it must be treated promptly to avoid serious health problems. Dehydration is discussed below.

People of all ages can get diarrhoea but the under five years age group are most vulnerable to disease and death. It is unusual for an adult to die from simple diarrhoea. If an adult is reported to have died from diarrhoea then cholera should be suspected.

The average adult has a bout of diarrhoea about four times a year.

What Causes Diarrhoea?

Diarrhoea may be caused by a temporary problem, like an infection, or a chronic problem, like an intestinal disease. A few of the more common causes of diarrhoea are

- Bacterial infections. Several types of bacteria, consumed through contaminated food or water, can cause diarrhoea. Common culprits include *Campylobacter*, *Salmonella*, *Shigella*, and *Escherichia coli*.
- Viral infections. Many viruses cause diarrhoea, including rotavirus, Norwalk virus, cytomegalovirus, herpes simplex virus, and viral hepatitis.
- Food intolerances. Some people are unable to digest a component of food, such as lactose, the sugar found in milk.
- Parasites. Parasites can enter the body through food or water and settle in the digestive system. Parasites that cause diarrhoea include *Giardia lamblia*, *Entamoeba histolytica*, and *Cryptosporidium*.
- Reaction to medicines, such as antibiotics, blood pressure medications, and antacids containing magnesium.
- Intestinal diseases, like inflammatory bowel disease or celiac disease.
- Functional bowel disorders, such as irritable bowel syndrome, in which the intestines do not work normally.

Some people develop diarrhoea after stomach surgery or removal of the gallbladder. The reason may be a change in how quickly food moves through the digestive system after stomach surgery or an increase in bile in the colon that can occur after gallbladder surgery.

In many cases, the cause of diarrhoea cannot be found. As long as diarrhoea goes away on its own, an extensive search for the cause is not usually necessary.

People who visit foreign countries are at risk for traveller's diarrhoea, which is caused by eating food or drinking water contaminated with bacteria, viruses, or, sometimes, parasites. Traveller's diarrhoea is a particular problem for people visiting developing countries. Visitors to the United States, Canada, most European countries, Japan, Australia, and New Zealand do not face much risk for traveller's diarrhoea.

What Are the Symptoms?

Diarrhoea may be accompanied by cramping abdominal pain, bloating, nausea, or an urgent need to use the bathroom. Depending on the cause, a person may have a fever or bloody stools.

Diarrhoea can be either acute or chronic. The acute form, which lasts less than 3 weeks, is usually related to a bacterial, viral, or parasitic infection. Chronic diarrhoea lasts more than 3 weeks and is usually related to functional disorders like irritable bowel syndrome or diseases like celiac disease or inflammatory bowel disease.

Diarrhoea in Children

Children can have acute (short-term) or chronic (long-term) forms of diarrhoea. Causes include bacteria, viruses, parasites, medications, functional disorders, and food sensitivities. Infection with the rotavirus is the most common cause of acute childhood diarrhoea. Rotavirus diarrhoea usually resolves in 5 to 8 days.

Medications to treat diarrhoea in adults can be dangerous to children and should be given only under a doctor's guidance.

Diarrhoea can be dangerous in newborns and infants. In small children, severe diarrhoea lasting just a day or two can lead to dehydration. Because a child can die from dehydration within a few days, the main treatment for diarrhoea in children is rehydration. Rehydration is discussed below.

Take your child to the doctor if any of the following symptoms appear:

- Stools containing blood or pus, or black stools
- Temperature above 101.4 degrees Fahrenheit
- No improvement after 24 hours
- Signs of dehydration (see below)

What Is Dehydration?

General signs of dehydration include:

- Thirst
- Less frequent urination
- Dry skin
- Fatigue
- Light-headedness
- Dark coloured urine

Signs of dehydration in children include:

- Dry mouth and tongue
- No tears when crying
- No wet diapers for 3 hours or more
- Sunken abdomen, eyes, or cheeks
- High fever
- Listlessness or irritability
- Skin that does not flatten when pinched and released

If you suspect that you or your child is dehydrated, call the doctor immediately. Severe dehydration may require hospitalisation.

When Should a Doctor Be Consulted?

Although usually not harmful, diarrhoea can become dangerous or signal a more serious problem.

You should see the doctor if:

- You have diarrhoea for more than 3 days.
- You have severe pain in the abdomen or rectum.
- You have a fever of 102 degrees Fahrenheit or higher.
- You see blood in your stool or have black, tarry stools.
- You have signs of dehydration.

If your child has diarrhoea, do not hesitate to call the doctor for advice. Diarrhoea can be dangerous in children if too much fluid is lost and not replaced quickly.

What Tests Might the Doctor Do?

Diagnostic tests to find the cause of diarrhoea include the following:

- **Medical history and physical examination.** The doctor will need to know about your eating habits and medication use and will examine you for signs of illness.
- **Stool culture.** Lab technicians analyse a sample of stool to check for bacteria, parasites, or other signs of disease or infection.
- **Blood tests.** Blood tests can be helpful in ruling out certain diseases.
- **Fasting tests.** To find out if a food intolerance or allergy is causing the diarrhoea, the doctor may ask you to avoid lactose (found in milk products), carbohydrates, wheat, or other foods to see whether the diarrhoea responds to a change in diet.
- **Sigmoidoscopy.** For this test, the doctor uses a special instrument to look at the inside of the rectum and lower part of the colon.
- **Colonoscopy.** This test is similar to sigmoidoscopy, but the doctor looks at the entire colon.

What Is the Treatment?

In most cases, replacing lost fluid to prevent dehydration is the only treatment necessary. (See "Preventing Dehydration" below.) Medicines that stop diarrhoea may be helpful in some cases, but they are not recommended for people whose diarrhoea is from a bacterial infection or parasite--stopping the diarrhoea traps the organism in the intestines, prolonging the problem. Instead, doctors usually prescribe antibiotics. Viral causes are either treated with medication or left to run their course, depending on the severity and type of the virus.

Preventing Dehydration

Dehydration occurs when the body has lost too much fluid and electrolytes (the salts potassium and sodium). The fluid and electrolytes lost during diarrhoea need to be replaced promptly--the body cannot function properly without them. Dehydration is particularly dangerous for children, who can die from it within a matter of days.

Although water is extremely important in preventing dehydration, it does not contain electrolytes. To maintain electrolyte levels, you could have broth or soups, which contain sodium, and fruit juices, soft fruits, or vegetables, which contain potassium.

For children, doctors often recommend a special rehydration solution that contains the nutrients they need. You can buy this solution in the grocery store without a prescription. Examples include Pedialyte, Ceralyte, and Infalyte.

Tips About Food

Until diarrhoea subsides, try to avoid milk products and foods that are greasy, high-fiber, or very sweet. These foods tend to aggravate diarrhoea.

As you improve, you can add soft, bland foods to your diet, including bananas, plain rice, boiled potatoes, toast, crackers, cooked carrots, and baked chicken without the skin or fat. For children, the paediatrician may recommend what is called the BRAT diet: bananas, rice, applesauce, and toast.

Preventing Traveller's Diarrhoea

Traveller's diarrhoea happens when you consume food or water contaminated with bacteria, viruses, or parasites. You can take the following precautions to prevent traveller's diarrhoea when you go abroad:

- Do not drink any tap water, not even when brushing your teeth.
- Do not drink unpasteurised milk or dairy products.
- Do not use ice made from tap water.
- Avoid all raw fruits and vegetables (including lettuce and fruit salad) unless they can be peeled and you peel them yourself.
- Do not eat raw or rare meat and fish.
- Do not eat meat or shellfish that is not hot when served to you.
- Do not eat food from street vendors.

You can safely drink bottled water (if you are the one to break the seal), carbonated soft drinks, and hot drinks like coffee or tea.

Depending on where you are going and how long you are staying, your doctor may recommend that you take antibiotics before leaving to protect you from possible infection.

Points To Remember

- Diarrhoea is a common problem that usually resolves on its own.
- Diarrhoea is dangerous if a person becomes dehydrated.
- Causes include viral, bacterial, or parasitic infections; food intolerance; reactions to medicine; intestinal diseases; and functional bowel disorders.
- Treatment involves replacing lost fluids and electrolytes. Depending on the cause of the problem, a person might also need medication to stop the diarrhoea or treat an infection. Children may need an oral rehydration solution to replace lost fluids and electrolytes.
- Call the doctor if a person with diarrhoea has severe pain in the abdomen or rectum, a fever of 38 degrees centigrade or higher, blood in the stool, signs of dehydration, or diarrhoea for more than 3 days.

WHO Cholera Fact Sheet³

Cholera is an acute intestinal infection caused by the bacterium *Vibrio cholerae*. It has a short incubation period, from less than one day to five days, and produces an enterotoxin that causes a copious, painless, watery diarrhoea that can quickly lead to severe dehydration and death if treatment is not promptly given. Vomiting also occurs in most patients.

Most persons infected with *V. cholerae* do not become ill, although the bacterium is present in their faeces for 7-14 days. When illness does occur, more than 90% of episodes are of mild or moderate severity and are difficult to distinguish clinically from other types of acute diarrhoea. Less than 10% of ill persons develop typical cholera with signs of moderate or severe dehydration.

Background

The vibrio responsible for the seventh pandemic, now in progress, is known as *V. cholerae* O1, biotype El Tor. The current seventh pandemic began in 1961 when the vibrio first appeared as a cause of epidemic cholera in Celebes (Sulawesi), Indonesia. The disease then spread rapidly to other countries of eastern Asia and reached Bangladesh in 1963, India in 1964, and the USSR, Iran and Iraq in 1965-1966.

In 1970 cholera invaded West Africa, which had not experienced the disease for more than 100 years. The disease quickly spread to a number of countries and eventually became endemic in most of the continent. In 1991 cholera struck Latin America, where it had also been absent for more than a century. Within the year it spread to 11 countries, and subsequently throughout the continent.

Until 1992, only *V. cholerae* serogroup O1 caused epidemic cholera. Some other serogroups could cause sporadic cases of diarrhoea, but not epidemic cholera. Late that year, however, large outbreaks of cholera began in India and Bangladesh that were caused by a previously unrecognized serogroup of *V. cholerae*, designated O139, synonym Bengal. Isolation of this vibrio has now been reported from 11 countries in South-East Asia. It is still unclear whether *V. cholerae* O139 will extend to other regions, and careful epidemiological monitoring of the situation is being maintained.

Transmission

Cholera is spread by contaminated water and food. Sudden large outbreaks are usually caused by a contaminated water supply. Only rarely is cholera transmitted by direct person-to-person contact. In highly endemic areas, it is mainly a disease of young children, although breastfeeding infants are rarely affected.

Vibrio cholerae is often found in the aquatic environment and is part of the normal flora of brackish water and estuaries. It is often associated with algal blooms (plankton), which are influenced by the temperature of the water. Human beings are also one of the reservoirs of the pathogenic form of *Vibrio cholerae*.

³ The following factsheets have been taken from the WHO website: www.who.int

Treatment

When cholera occurs in an unprepared community, case-fatality rates may be as high as 50% -- usually because there are no facilities for treatment, or because treatment is given too late. In contrast, a well-organized response in a country with a well established diarrhoeal disease control programme can limit the case-fatality rate to less than 1%.

Most cases of diarrhoea caused by *V. cholerae* can be treated adequately by giving a solution of oral rehydration salts (the WHO/UNICEF standard sachet). During an epidemic, 80-90% of diarrhoea patients can be treated by oral rehydration alone, but patients who become severely dehydrated must be given intravenous fluids.

In severe cases, an effective antibiotic can reduce the volume and duration of diarrhoea and the period of vibrio excretion. Tetracycline is the usual antibiotic of choice, but resistance to it is increasing. Other antibiotics that are effective when *V. cholerae* are sensitive to them include cotrimoxazole, erythromycin, doxycycline, chloramphenicol and furazolidone.

Epidemic control and preventive measures

When cholera appears in a community it is essential to ensure three things: hygienic disposal of human faeces, an adequate supply of safe drinking water, and good food hygiene. Effective food hygiene measures include cooking food thoroughly and eating it while still hot; preventing cooked foods from being contaminated by contact with raw foods, including water and ice, contaminated surfaces or flies; and avoiding raw fruits or vegetables unless they are first peeled. Washing hands after defecation, and particularly before contact with food or drinking water, is equally important.

Routine treatment of a community with antibiotics, or "mass chemoprophylaxis", has no effect on the spread of cholera, nor does restricting travel and trade between countries or between different regions of a country. Setting up a *cordon sanitaire* at frontiers uses personnel and resources that should be devoted to effective control measures, and hampers collaboration between institutions and countries that should unite their efforts to combat cholera.

Limited stocks of two oral cholera vaccines that provide high-level protection for several months against cholera caused by *V. cholerae* O1 have recently become available in a few countries. Both are suitable for use by travellers but they have not yet been used on a large scale for public health purposes. Use of this vaccine to prevent or control cholera outbreaks is not recommended because it may give a false sense of security to vaccinated subjects and to health authorities, who may then neglect more effective measures.

In 1973 the WHO World Health Assembly deleted from the International Health Regulations the requirement for presentation of a cholera vaccination certificate. Today, no country requires proof of cholera vaccination as a condition for entry, and the International Certificate of Vaccination no longer provides a specific space for recording cholera vaccinations.

Trade in food products coming from cholera-infected regions

The publication "Guidelines for Cholera Control", available through WHO's Distribution and Sales Unit, states the following:

"Vibrio cholerae 01 can survive on a variety of foodstuffs for up to five days at ambient temperature and up to 10 days at 5-10 degrees Celsius. The organism can also survive freezing. Low temperatures, however, limit proliferation of the organism and thus may prevent the level of contamination from reaching an infective dose.

"The cholera vibrio is sensitive to acidity and drying, and commercially prepared acidic (pH 4.5 or less) or dried foods are therefore without risk. Gamma irradiation and temperatures above 70 degrees Celsius also destroy the vibrio and foods processed by these methods, according to the standards of the Codex Alimentarius, and

"The foods that cause greatest concern to importing countries are seafood and vegetables that may be consumed raw. However, only rare cases of cholera have occurred as a result of eating food, usually seafood, transported across international borders by individuals.

"...Indeed, although individual cases and clusters of cases have been reported, WHO has not documented a significant outbreak of cholera resulting from commercially imported food."

In summary, although there is a theoretical risk of cholera transmission with international food trade, the weight of evidence suggests that this risk is very small and can normally be dealt with by means other than an embargo on importation.

WHO believes that the best way to deal with food imports from cholera-affected areas is for importing countries to agree, with food exporters, on good hygienic practices which need to be followed during food handling and processing to prevent, eliminate or minimize the risk of any potential contamination; and to set up arrangements to obtain assurance that these measures are adequately carried out.

At present, WHO has no information that food commercially imported from affected countries has been implicated in outbreaks of cholera in importing countries. The isolated cases of cholera, which have been related to imported food, have been associated with food which had been in the possession of individual travellers. Therefore, it may be concluded that food produced under good manufacturing practices poses only a negligible risk for cholera transmission. Consequently, WHO believes that food import restrictions, based on the sole fact that cholera is epidemic or endemic in a country, are not justified.

WHO Hepatitis A⁴ Factsheet

KEY FACTS

- Hepatitis A is a viral liver disease that can cause mild to severe illness.
- It is spread by faecal-oral (or stool to mouth) transmission when a person ingests food or drink contaminated by an infected person's stool.
- The disease is closely associated with poor sanitation and a lack of personal hygiene habits, such as hand-washing.
- An estimated 1.4 million cases of hepatitis A occur annually.
- Epidemics can be explosive in growth and cause significant economic losses: 300 000 were affected in one Shanghai outbreak in 1988.
- Improved sanitation and the Hepatitis A vaccine are the most effective ways to combat the disease.

Hepatitis A is a liver infection caused by the hepatitis A virus (HAV). The virus is spread when an uninfected (or unvaccinated) person eats or drinks something contaminated by the stool of an HAV-infected person: this is called faecal-oral transmission. The disease is closely associated with inadequate sanitation and poor personal hygiene. Unlike hepatitis B and C, hepatitis A infection does not cause chronic liver disease and is rarely fatal, but it can cause debilitating symptoms.

Hepatitis A occurs sporadically and in epidemics worldwide, with a tendency for cyclic recurrences. Worldwide, HAV infections account for an estimated 1.4 million cases annually. Epidemics related to contaminated food or water can erupt explosively, such as an epidemic in Shanghai in 1988 that affected about 300 000 people.

The disease can wreak significant economic and social consequences in communities. It can take weeks or months for people recovering from the illness to return to work, school or daily life. The impact on food establishments identified with the virus, and local productivity in general, can be substantial.

Symptoms

The symptoms of hepatitis A range from mild to severe, and can include fever, malaise, loss of appetite, diarrhoea, nausea, abdominal discomfort, dark-coloured urine and jaundice (a yellowing of the skin and whites of the eyes). Not everyone who is infected will have all of the symptoms. Adults have signs and symptoms of illness more often than children, and the severity of disease and mortality increases in older age groups. Infected children under six years of age do not usually experience noticeable symptoms, and only 10% develop jaundice. Among older children and adults, infection usually causes more severe symptoms, with jaundice occurring in more than 70% of cases. Most people recover in several weeks - or sometimes months - without complications.

Who is at risk?

Anyone who has not had been infected previously or been vaccinated can contract hepatitis A. People who live in places with poor sanitation are at higher risk. In areas where the virus is widespread, most HAV infections occur during early childhood. Other risk factors for the virus include injecting drugs, living in a household with an infected person, or being a sexual partner of someone with acute HAV infection.

Transmission

HAV is usually spread from person to person when an uninfected person ingests food or beverages that have been contaminated with the stool of a person with the virus. Bloodborne transmission of HAV occurs, but is much less common. Waterborne outbreaks, though infrequent, are usually associated with sewage-contaminated or inadequately treated water. Casual contact among people does not spread the virus.

Treatment

⁴ Taken from www.who.int

There is no specific treatment for hepatitis A. Recovery from symptoms following infection may be slow and take several weeks or months. Therapy is aimed at maintaining comfort and adequate nutritional balance, including replacement of fluids that are lost from vomiting and diarrhoea.

Prevention

Improved sanitation and Hepatitis A immunization are the most effective ways to combat the disease.

Adequate supplies of safe-drinking water and proper disposal of sewage within communities, combined with personal hygiene practices, such as regular hand-washing, reduce the spread of HAV.

Several hepatitis A vaccines are available internationally. All are similar in terms of how well they protect people from the virus and their side-effects. No vaccine is licensed for children younger than one year of age.

Nearly 100% of people will develop protective levels of antibodies to the virus within one month after a single dose of the vaccine. Even after virus exposure, one dose of the vaccine within two weeks of contact with the virus has protective effects. Still, manufacturers recommend two vaccine doses to ensure longer-term protection of about 5 to 8 years after vaccination. Millions of people have been immunized with no serious adverse events. The vaccine can be given as part of regular childhood immunizations programmes and with vaccines commonly given for travel.

Where is the disease found?

Geographic areas can be characterized as having high, intermediate or low levels of HAV infection.

- **High:** In developing countries with very poor sanitary conditions and hygienic practices, the lifetime risk of infection is greater than 90%. Most infections occur in early childhood and those infected do not experience any noticeable symptoms. Epidemics are uncommon because older children and adults are generally immune. Disease rates in these areas are low and outbreaks are rare.
- **Intermediate:** In developing countries, countries with transitional economies and regions where sanitary conditions are variable, children escape infection in early childhood. Ironically, these improved economic and sanitary conditions may lead to higher disease rates, as infections occur in older age groups, and large outbreaks can occur.
- **Low:** In developed countries with good sanitary and hygienic conditions infection rates are low. Disease may occur among adolescents and adults in high-risk groups, such as injecting-drug users, homosexual men, persons travelling to high-risk areas, and in isolated populations, e.g. closed religious communities.

Immunization efforts

Planning for large-scale immunization programmes should involve careful economic evaluations and consider alternative or additional prevention methods, such as better sanitation and health education for improved hygiene.

Whether or not to include the vaccine in routine childhood immunizations depends on the local context, including the level of risk for children. Several countries, including Argentina, China, Israel and the United States have introduced the vaccine in routine childhood immunizations. Other countries recommend the vaccine for persons at increased risk of hepatitis A, including travellers to countries where the virus is endemic, men who have sex with men, or persons with chronic liver disease (because of their increased risk of serious complications if they acquire HAV infection).

Recommendations for hepatitis A vaccination in outbreaks should also be site-specific, including the feasibility of rapidly implementing a widespread immunization campaign. Vaccination to control community-wide outbreaks is most successful in small communities, when the campaign is started early and when high coverage of multiple age groups is achieved. Vaccination efforts should be supplemented by health education to improve sanitation and hygiene practices.

WHO Hepatitis E Fact Sheet

Hepatitis is a general term meaning inflammation of the liver. Hepatitis is a disease that can be caused by a variety of different viruses such as hepatitis A, B, C, D and E. Since the development of jaundice is a characteristic feature of liver disease, a correct diagnosis can only be made by testing patients' sera for the presence of specific viral antigens and/or anti-viral antibodies.

Hepatitis E (HEV) was not recognized as a distinct human disease until 1980. Hepatitis E is caused by infection with the hepatitis E virus, a non-enveloped, positive-sense, single-stranded RNA virus. Although man is considered the natural host for HEV, antibodies to HEV or closely related viruses have been detected in primates and several other animal species.

How is HEV transmitted?

HEV is transmitted via the faecal-oral route. Hepatitis E is a waterborne disease, and contaminated water or food supplies have been implicated in major outbreaks. Consumption of faecally contaminated drinking water has given rise to epidemics, and the ingestion of raw or uncooked shellfish has been the source of sporadic cases in endemic areas. There is a possibility of zoonotic spread of the virus, since several non-human primates, pigs, cows, sheep, goats and rodents are susceptible to infection. The risk factors for HEV infection are related poor sanitation in large areas of the world, and HEV shedding in faeces. Person-to-person transmission is uncommon. There is no evidence for sexual transmission or for transmission by transfusion.

Where is HEV a problem?

The highest rates of infection occur in regions where low standards of sanitation promote the transmission of the virus. Epidemics of hepatitis E have been reported in Central and South-East Asia, North and West Africa, and in Mexico, especially where faecal contamination of drinking water is common. However, sporadic cases of hepatitis E have also been reported elsewhere and serological surveys suggest a global distribution of strains of hepatitis E of low pathogenicity.

When is a HEV infection life-threatening?

In general, hepatitis E is a self-limiting viral infection followed by recovery. Prolonged viraemia or faecal shedding are unusual and chronic infection does not occur. Occasionally, a fulminant form of hepatitis develops, with overall patient population mortality rates ranging between 0.5% - 4.0%. Fulminate hepatitis occurs more frequently in pregnancy and regularly induces a mortality rate of 20% among pregnant women in the 3rd trimester.

The disease

The incubation period following exposure to HEV ranges from 3 to 8 weeks, with a mean of 40 days. The period of communicability is unknown. There are no chronic infections reported. Hepatitis E virus causes acute sporadic and epidemic viral hepatitis. Symptomatic HEV infection is most common in young adults aged 15-40 years. Although HEV infection is frequent in children, it is mostly asymptomatic or causes a very mild illness without jaundice (anicteric) that goes undiagnosed. Typical signs and symptoms of hepatitis include jaundice (yellow discoloration of the skin and sclera of the eyes, dark urine and pale stools), anorexia (loss of appetite), an enlarged, tender liver (hepatomegaly), abdominal pain and tenderness, nausea and vomiting, and fever, although the disease may range in severity from subclinical to fulminant.

Diagnosis

Since cases of hepatitis E are not clinically distinguishable from other types of acute viral hepatitis, diagnosis is made by blood tests which detect elevated antibody levels of specific antibodies to hepatitis E in the body or by reverse transcriptase polymerase chain reaction (RT-PCR). Unfortunately, such tests are not widely available. Hepatitis E should be suspected in outbreaks of

waterborne hepatitis occurring in developing countries, especially if the disease is more severe in pregnant women, or if hepatitis A has been excluded. If laboratory tests are not available, epidemiological evidence can help in establishing a diagnosis.

Surveillance and control

Surveillance and control procedures should include provision of safe drinking water and proper disposal of sanitary waste monitoring disease incidence determination of source of infection and mode of transmission by epidemiological investigation detection of outbreaks spread containment

Vaccines

At present, no commercially available vaccines exist for the prevention of hepatitis E. However, several studies for the development of an effective vaccine against hepatitis E are in progress.

Prevention

As almost all HEV infections are spread by the faecal-oral route, good personal hygiene, high quality standards for public water supplies and proper disposal of sanitary waste have resulted in a low prevalence of HEV infections in many well developed societies.

For travellers to highly endemic areas, the usual elementary food hygiene precautions are recommended. These include avoiding drinking water and/or ice of unknown purity and not eating uncooked shellfish, uncooked fruit or vegetables that are not peeled or prepared by the traveller.

Treatment

Hepatitis E is a viral disease, and as such, antibiotics are of no value in the treatment of the infection. There is no hyper-immune E globulin available for pre- or post-exposure prophylaxis. HEV infections are usually self-limited, and hospitalisation is generally not required. No available therapy is capable of altering the course of acute infection. As no specific therapy is capable of altering the course of acute hepatitis E infection, prevention is the most effective approach against the disease. Hospitalisation is required for fulminant hepatitis and should be considered for infected pregnant women.

Guidelines for epidemic measures

- Determination of the mode of transmission.
- Identification of the population exposed to increased risk of infection.
- Elimination of a common source of infection.
- Improvement of sanitary and hygienic practices to eliminate faecal contamination of food and water.

WHO Dengue and dengue haemorrhagic fever

Dengue is a mosquito-borne infection which in recent years has become a major international public health concern. Dengue is found in tropical and sub-tropical regions around the world, predominantly in urban and semi-urban areas.

Dengue haemorrhagic fever (DHF), a potentially lethal complication, was first recognized in the 1950s during the dengue epidemics in the Philippines and Thailand, but today DHF affects most Asian countries and has become a leading cause of hospitalisation and death among children in several of them.

There are four distinct, but closely related, viruses that cause dengue. Recovery from infection by one provides lifelong immunity against that serotype but confers only partial and transient protection against subsequent infection by the other three. There is good evidence that sequential infection increases the risk of more serious disease resulting in DHF.

Prevalence

The global prevalence of dengue has grown dramatically in recent decades. The disease is now endemic in more than 100 countries in Africa, the Americas, the Eastern Mediterranean, South-east Asia and the Western Pacific. South-east Asia and the Western Pacific are most seriously affected. Before 1970 only nine countries had experienced DHF epidemics, a number that had increased more than four-fold by 1995.

Some 2500 million people -- two fifths of the world's population -- are now at risk from dengue. WHO currently estimates there may be 50 million cases of dengue infection worldwide every year.

In 2001 alone, there were more than 609 000 reported cases of dengue in the Americas, of which 15 000 cases were DHF. This is greater than double the number of dengue cases which were recorded in the same region in 1995.

Not only is the number of cases increasing as the disease is spreading to new areas, but explosive outbreaks are occurring. In 2001, Brazil reported over 390 000 cases including more than 670 cases of DHF.

Some other statistics:

- During epidemics of dengue, attack rates among susceptibles are often 40 -- 50%, but may reach 80 -- 90%.
- An estimated 500 000 cases of DHF require hospitalisation each year, of whom a very large proportion are children. At least 2.5% of cases die, although case fatality could be twice as high.
- Without proper treatment, DHF case fatality rates can exceed 20%. With modern intensive supportive therapy, such rates can be reduced to less than 1%.

The spread of dengue is attributed to expanding geographic distribution of the four dengue viruses and of their mosquito vectors, the most important of which is the predominantly urban species *Aedes aegypti*. A rapid rise in urban populations is bringing ever greater numbers of people into contact with this vector, especially in areas that are favourable for mosquito breeding, e.g. where household water storage is common and where solid waste disposal services are inadequate.

Transmission

Dengue viruses are transmitted to humans through the bites of infective female *Aedes* mosquitoes. Mosquitoes generally acquire the virus while feeding on the blood of an infected person. After virus incubation for 8-10 days, an infected mosquito is capable, during probing and blood feeding, of transmitting the virus, to susceptible individuals for the rest of its life. Infected female mosquitoes

may also transmit the virus to their offspring by transovarial (via the eggs) transmission, but the role of this in sustaining transmission of virus to humans has not yet been delineated. Humans are the main amplifying host of the virus, although studies have shown that in some parts of the world monkeys may become infected and perhaps serve as a source of virus for uninfected mosquitoes. The virus circulates in the blood of infected humans for two to seven days, at approximately the same time as they have fever; *Aedes* mosquitoes may acquire the virus when they feed on an individual during this period.

Characteristics

Dengue fever is a severe, flu-like illness that affects infants, young children and adults, but seldom causes death. The clinical features of dengue fever vary according to the age of the patient. Infants and young children may have a non-specific febrile illness with rash. Older children and adults may have either a mild febrile syndrome or the classical incapacitating disease with abrupt onset and high fever, severe headache, pain behind the eyes, muscle and joint pains, and rash.

Dengue haemorrhagic fever is a potentially deadly complication that is characterized by high fever, haemorrhagic phenomena--often with enlargement of the liver--and in severe cases, circulatory failure. The illness commonly begins with a sudden rise in temperature accompanied by facial flush and other non-specific constitutional symptoms of dengue fever. The fever usually continues for two to seven days and can be as high as 40-41°C, possibly with febrile convulsions and haemorrhagic phenomena. In moderate DHF cases, all signs and symptoms abate after the fever subsides. In severe cases, the patient's condition may suddenly deteriorate after a few days of fever; the temperature drops, followed by signs of circulatory failure, and the patient may rapidly go into a critical state of shock and die within 12-24 hours, or quickly recover following appropriate volume replacement therapy.

Treatment

There is no specific treatment for dengue fever. However, careful clinical management by experienced physicians and nurses frequently saves the lives of DHF patients. With appropriate intensive supportive therapy, mortality may be reduced to less than 1%. Maintenance of the circulating fluid volume is the central feature of DHF case management.

Immunization

Vaccine development for dengue and DHF is difficult because any of four different viruses may cause disease, and because protection against only one or two dengue viruses could actually increase the risk of more serious disease. Nonetheless, progress is being made in the development of vaccines that may protect against all four dengue viruses. Such products may become available for public health use within several years.

Prevention and control

At present, the only method of controlling or preventing dengue and DHF is to combat the vector mosquitoes. In Asia and the Americas, *Aedes aegypti* breeds primarily in man-made containers like earthenware jars, metal drums and concrete cisterns used for domestic water storage, as well as discarded plastic food containers, used automobile tyres and other items that collect rainwater. In Africa it also breeds extensively in natural habitats such as tree holes and leaf axils.

In recent years, *Aedes albopictus*, a secondary dengue vector in Asia, has become established in: the United States, several Latin American and Caribbean countries, in parts of Europe and in one African country. The rapid geographic spread of this species has been largely attributed to the international trade in used tyres.

Vector control is implemented using environmental management and chemical methods. Proper solid waste disposal and improved water storage practices, including covering containers to prevent access by egg laying female mosquitoes are among methods that are encouraged through community-based programmes.

The application of appropriate insecticides to larval habitats, particularly those which are considered useful by the householders, e.g. water storage vessels, prevent mosquito breeding for several weeks but must be re-applied periodically. Small, mosquito-eating fish and copepods (tiny crustaceans) have also been used with some success. During outbreaks, emergency control

measures may also include the application of insecticides as space sprays to kill adult mosquitoes using portable or truck-mounted machines or even aircraft. However, the killing effect is only transient, variable in its effectiveness because the aerosol droplets may not penetrate indoors to microhabitats where adult mosquitoes are sequestered, and the procedure is costly and operationally very demanding. Regular monitoring of the vectors' susceptibility to the most widely used insecticides is necessary to ensure the appropriate choice of chemicals. Active monitoring and surveillance of the natural mosquito population should accompany control efforts in order to determine the impact of the programme.

WHO Malaria Factsheet

Malaria, the world's most important parasitic infectious disease, is transmitted by mosquitoes that breed in fresh or occasionally brackish water.

The disease and how it affects people

The symptoms of malaria include fever, chills, headache, muscle aches, tiredness, nausea and vomiting, diarrhoea, anaemia, and jaundice (yellow colouring of the skin and eyes). Convulsions, coma, severe anaemia and kidney failure can also occur. The severity and range of symptoms depend on the specific type of malaria. In certain types, the infection can remain inactive for up to five years and then recur. In areas with intense malaria transmission, people can develop protective immunity after repeated infections. Without prompt and effective treatment, malaria can evolve into a severe cerebral form followed by death. Malaria is among the five leading causes of death in under-5-year-old children in Africa.

The cause

Malaria is caused by four species of Plasmodium parasites (*P. falciparum*, *P. vivax*, *P. ovale*, *P. malariae*). People get malaria after being bitten by a malaria-infected Anopheles mosquito. Some female mosquitoes take their blood-meal at dusk and early evening, but others bite during the night or in the early hours of the morning. When a mosquito bites an infected person, it ingests malaria parasites with the blood. During a period of 8 to 35 days (depending on the ambient temperature), the parasite develops in the mosquito. The infective form (sporozoite) ends up in the salivary glands and is injected into the new human host at subsequent blood-meals. In the human host, the sporozoites migrate to the liver, multiply inside liver cells, and spread into the bloodstream. The liver phase can last between 8 days and several months, depending on the malaria species. Their growth and multiplication takes place inside red blood cells. Clinical symptoms occur when the red blood cells break up. If this happens in large numbers, the person experiences the characteristic intermittent fevers of the disease. The released parasites invade other blood cells. Most people begin feeling sick 10 days to 4 weeks after being infected.

Distribution

Today, malaria occurs mostly in tropical and subtropical countries, particularly in Africa south of the Sahara, South-East Asia, and the forest fringe zones in South America. The ecology of the disease is closely associated with the availability of water, as the larval stage of mosquitoes develops in different kinds of water bodies. The mosquito species vary considerably in their water-ecological requirements, (sun-lit or shaded, with or without aquatic vegetation, stagnant or slowly streaming, fresh or brackish) and this affects the disease ecology. Climate change (global warming) appears to be moving the altitude limits of malaria to higher elevations, for example in the East African highlands and Madagascar. The construction of irrigation systems and reservoirs in some parts of the world can have a dramatic impact on malaria distribution and on the intensity of its transmission.

Scope of the Problem

WHO estimates 300-500 million cases of malaria, with over one million deaths each year. The main burden of malaria (more than 90%) is in Africa south of the Sahara with an estimated annual number of deaths over 1 million. Two thirds of the remaining burden hits six countries: Brazil, Colombia, India, Solomon Islands, Sri Lanka and Viet Nam. In many parts the natural habitat sustains intense malaria transmission; in others, water resources development (irrigation, dams, urban water supply) has exacerbated the transmission

intensity and caused the distribution of the disease to spread. In yet others, for example the Central Asian republics of the CIS, malaria has returned as a result of a breakdown in water management and maintenance problems of local irrigation systems.

Interventions

WHO's Strategy for Malaria Control, which forms the basis of the Roll Back Malaria initiative, identifies four main interventions:

- Reducing mortality, particularly among children, by early case-detection and prompt treatment with effective anti-malarial drugs
- Promoting the use of insecticide-treated bed nets, especially by children and pregnant women
- Prevention of malaria in pregnancy by applying intermittent preventive therapy
- Ensuring early detection and control of malaria epidemics, especially in emergency situations.
- Where appropriate, countries and communities are being encouraged to reduce mosquito breeding sites by filling in and draining water bodies and through other environmental management schemes.

Scabies disease fact sheet

Scabies is a contagious skin infection that spreads rapidly in crowded conditions and is found worldwide. Personal hygiene is an important preventive measure and access to adequate water supply is important in control.

The disease and its effect on people

The principal sign of the disease is a pimple-like rash that is most commonly found on the hands, especially the webbing between the fingers, the skin folds of the wrist, elbow or knee, the penis, the breast or the shoulder. Infestation often causes intense itching all over the body, especially at night. Scratching of itchy areas results in sores that may become infected by bacteria. A more severe form of scabies, known as Norwegian scabies, is more common among people with weakened immune systems. In this form of the disease, vesicles are present along with thick crusts over the skin. The itching in this type of scabies may be less severe or totally absent.

Cause

Scabies infestation is caused by the microscopic mite *Sarcoptes scabiei*. The fertilized female mite burrows into the skin, depositing eggs in the tunnel behind her. After the eggs are hatched, larvae migrate to the skin surface and eventually change into the adult form. Mating occurs on the skin surface. An adult mite can live up to about a month on a person. Once away from the human body, mites only survive 48-72 hours. The characteristic itchy rash of scabies is an allergic response to the mite. Individuals who are infested with scabies for the first time typically experience symptoms after 4 to 6 weeks. With subsequent infestation, symptoms appear within days.

Scabies spreads principally by direct skin-to-skin contact and to a lesser extent through contact with infested garments and bedclothes. Environments that are particularly vulnerable to the spread of scabies include hospitals, childcare facilities and any crowded living conditions. Infestation is easily passed between sexual partners.

Distribution of the disease

Scabies mites are found worldwide, affecting all socioeconomic classes and in all climates. Epidemics have been linked to poverty, poor water-supply, sanitation and overcrowding.

Scale of the problem

There are about 300 million cases of scabies in the world each year.

Interventions

Improved personal hygiene plays an important part in the prevention and control of scabies and depends on access to adequate water-supply. Treatment of patients is with acaricide ointments preceded by a hot bath with liberal use of soap. Infested clothing should be sterilized or washed in hot soapy water. Bedding, mattresses, sheets and clothes may require dusting with acaricides.

Several recent studies have demonstrated that an oral dose of ivermectin is extremely effective in curing scabies. The mass distribution of ivermectin organized by WHO for the control of onchocerciasis and lymphatic filariasis (in this case associated with albendazole) could have an important impact on scabies.

Prepared for World Water Day. Reviewed by staff and experts from the cluster on Communicable Diseases (CDS) and the Water, Sanitation and Health Unit (WSH), World Health Organization (WHO)

How to do matrix and pair wise ranking

Matrix and pair wise ranking can be used to prioritise problems or compare preferences: for example to compare the perceived effectiveness of different treatments for diarrhoea or for establishing which health problems are the most common or serious. Again, this is most effectively done in small groups.

- Ask participants to brainstorm the issues in the camp or settlement that you are going to compare, for example “Which diseases are people in the community most worried about getting?”
- Decide on symbols or pictures to represent these issues. Place one set of these in a row along the top and another in a column along the side to form the matrix (as in the diagram).
- For each square in the matrix, ask participants whether the symbol at the top of the row is more important or less important than the one at the left of the row. Stop when each symbol has been compared with each of the others. (Only the top half of the matrix will be filled in). Keep a tally of each choice in the relevant box.
- When the participant has made his/her choices try to get them to give the reasons why they were chosen.
- The scores can then be added up to find which issue is the most important. In this example, people were most worried about contracting dysentery.
- This should be followed by further discussion on the outcome of the scoring exercise and what can be done about the problem. The findings should be included in the project records.

Hygiene Promotion and Sphere

(www.sphereproject.org)

What is Sphere?

Sphere is based on two core beliefs: first, that all possible steps should be taken to alleviate human suffering arising out of calamity and conflict, and second, that those affected by disaster have a right to life with dignity and therefore a right to assistance. Sphere is three things; a handbook, a broad process of collaboration, and an expression of commitment to quality and accountability.

The Sphere Project was launched in 1997 by a group of humanitarian NGOs and the Red Cross and Red Crescent movement. To date, over 400 organisations in 80 countries, all around the world, have contributed to the development of the minimum standards and key indicators. This new (2004) edition of the handbook has been significantly revised, taking into account recent technical developments and feedback from agencies using Sphere in the field.

Aim of Sphere

To improve the quality of assistance to people affected by disaster and improve the accountability of states and humanitarian agencies to their constituents, donors, and the affected populations.

Sphere and WASH

The minimum standards in water, sanitation, and Hygiene Promotion are a practical expression of the principles and rights embodied in the Humanitarian Charter. The Humanitarian Charter is concerned with the most basic requirements for sustaining the lives and dignity of those affected by calamity or conflict, as reflected in the body of international human rights, humanitarian, and refugee law

Sphere and Hygiene Promotion

The aim of any water and sanitation programme is to promote good personal and environmental hygiene in order to protect health. Hygiene Promotion is defined here as the mix between the population's knowledge, practice, and resources, and agency knowledge and resources, which together enable risky hygiene behaviours to be avoided. The three key factors are: 1) a mutual sharing of information and knowledge, 2) the mobilisation of communities, and 3) the provision of essential materials and facilities. Effective Hygiene Promotion relies on an exchange of information between the agency and the affected community in order to identify key hygiene problems and to design, implement, and monitor a programme to promote hygiene practices that will ensure the optimal use of facilities and the greatest impact on public health. Community mobilisation is especially pertinent during disasters as the emphasis must be on encouraging people to take action to protect their health and make good use of facilities and services provided, rather than on the dissemination of messages. It must be stressed that Hygiene Promotion should never be a substitute for good sanitation and water supplies, which are fundamental to good hygiene.

Hygiene Promotion is integral to all the standards within this chapter. It is presented here as one overarching standard with related indicators. Further specific indicators are given within each standard for water supply, excreta disposal, vector control, solid waste management, and drainage.

Hygiene Promotion standard 1: programme design and implementation

All facilities and resources provided reflect the vulnerabilities, needs, and preferences of the affected population. Users are involved in the management and maintenance of hygiene facilities where appropriate.

Key indicators (to be read in conjunction with the guidance notes)

- Key hygiene risks of public health importance are identified (see guidance note 1).
- Programmes include an effective mechanism for representative and participatory input from all users, including in the initial design of facilities (see guidance notes 2, 3 and 5).
- All groups within the population have equitable access to the resources or facilities needed to continue or achieve the hygiene practices that are promoted (see guidance note 3).
- Hygiene Promotion messages and activities address key behaviours and misconceptions and are targeted for all user groups. Representatives from these groups participate in planning, training, implementation, monitoring, and evaluation (see guidance notes 1, 3 and 4, and Participation standard).
- Users take responsibility for the management and maintenance of facilities as appropriate, and different groups contribute equitably (see guidance notes 5 and 6).

Guidance notes

1. Assessing needs: an assessment is needed to identify the key hygiene behaviours to be addressed and the likely success of promotional activity. The key risks are likely to centre on excreta disposal, the use and maintenance of toilets, the lack of handwashing with soap or an alternative, the unhygienic collection and storage of water, and unhygienic food storage and preparation. The assessment should look at resources available to the population as well as local behaviours, knowledge, and practices, so that messages are relevant and practical. It should pay special attention to the needs of vulnerable groups. If consultation with any group is not possible, this should be clearly stated in the assessment report and addressed as quickly as possible (see Participation standard and the assessment checklist in Appendix 1).

2. Sharing responsibility: the ultimate responsibility for hygiene practice lies with all members of the affected population. All actors responding to the disaster should work to enable hygienic practice by ensuring that both knowledge and facilities are accessible, and should be able to demonstrate that this has been achieved. As a part of this process, vulnerable groups from the affected population should participate in identifying risky practices and conditions and take responsibility to reduce these risks measurably. This can be achieved through promotional activities, training, and facilitation of behavioural change, based on activities that are culturally acceptable and do not overburden the beneficiaries.

3. Reaching all sections of the population: Hygiene Promotion programmes need to be

carried out with all groups of the population by facilitators who can access, and have the skills to work with, different groups (for example, in some cultures it is not acceptable for women to speak to unknown men). Materials should be designed so that messages reach members of the population who are illiterate. Participatory materials and methods that are culturally appropriate offer useful opportunities for groups to plan and monitor their own hygiene improvements. As a rough guide, in a camp scenario there should be two hygiene promoters/community mobilisers per 1,000 members of the target population. For information on hygiene items, see non-food items standard 2.

4. Targeting priority hygiene risks and behaviours: the objectives of Hygiene Promotion and communication strategies should be clearly defined and prioritised. The understanding gained through assessing hygiene risks, tasks, and responsibilities of different groups should be used to plan and prioritise assistance, so that misconceptions (for example, how HIV AND AIDS is transmitted) are addressed, and information flow between humanitarian actors and the affected population is appropriate and targeted.

5. Managing facilities: where possible, it is good practice to form water and/or sanitation committees made up of representatives from the various user groups, and with equal numbers of men and women. The functions of these committees are to manage the communal facilities such as water points, public toilets, and washing areas, to be involved in Hygiene Promotion activities, and also to act as a mechanism for ensuring representation and promoting sustainability.

6. Overburdening: it is important to ensure that no one group is overburdened with the responsibility for Hygiene Promotional activities or management of facilities, and that each group has equitable influence and benefits (such as training). Not all groups, women, or men have the same needs and interests and it should be recognised that the participation of women should not lead to men, or other groups within the population, not taking responsibility.

For further information see www.sphereproject.org

December 2007

Gender roles

The purpose of this exercise is to encourage discussion about the roles of men and women with a view to enabling women to be more involved in the planning and decision-making for interventions associated with water, sanitation and hygiene.

By the end of the session participants should be able to list the different activities ascribed to men and women in their specific culture and context and explain how women might be more involved in a water and sanitation programme.

- Divide participants into groups of about six people. If the session has invited both men and women, ensure that there is an equal mix of both in the groups.
- Provide each group with a set of activity cards. Ask the groups to sort the cards into three groups according to those activities that are usually performed by men, those usually performed by women, and those usually performed by men and women to the same extent.
- Explain to the groups that the exercise is designed to encourage discussion and differences of opinion, and that the pictures should be used constructively to gain insights into how the different roles of men and women are viewed in a specific culture and context.
- Encourage further discussion by asking the groups to consider what knowledge is necessary in order to perform each task and what decisions must be made before each task can be performed.
- Ask each group to also decide how men and women can become more equal partners in a water and sanitation programme - considering such issues as access to paid employment, maintenance and care of facilities etc.
- Ask for feedback in plenary and try to encourage consensus on any contentious issues.

Gender Checklist for WASH Programming

(adapted from IFRC Gender Checklist)

General data

- Total number of family's data disaggregated by age and sex.
- Number of families headed by females, and number by males.
- Child headed families.
- Number of unaccompanied boys and girls, elderly, disabled.

Water collection, transportation and allocation at HH level

- Patterns of water collection (water fetching and carrying): Time spent (hours / day).
- Relationship between water collection and girl child school attendance.
- Gendered division of access to means of water transportation. When the family has access to a private transport (bicycle, donkey, motorbike, etc), do men retain the priority in its use, leaving women more reliant to travel by foot?
- Patterns of water allocation among the family members (sharing, quantity, quality)

Access to and control over water sources

- The different uses and responsibilities for water by men, women and children (e.g. cooking, sanitation, gardens, livestock, etc.).
- Who takes the decision about different water uses in the community (water for irrigation, domestic use, livestock watering, water selling, brick making, etc)?
- Do women have access to income generated activities related to water?

Gender division of time-use in the household

- Who takes the decision about the time spent at household level?
- What is the normal means of handling, storing and treating water at household level?
- Who is responsible for household hygiene? Who is responsible for hygiene and sanitation practices at community level?
- If women are responsible for the hygiene status of themselves and their families, what level of knowledge and skills do women have?

Technical options / O&M

- What is the division of responsibilities between men and women for maintenance and management of water and sanitation facilities? Are women equally represented at in community development committees, water committees, community associations, etc? Which roles do women take on in those associations? Do they have access to the treasury?
- Who usually maintains the latrines / water points?
- Does the community need technical training on latrine use for operation and maintenance and hygiene and / or managerial training for maintenance?
- What are the options for convenient user-friendly designs, low cost and affordable facilities?
- Physical designs for water points and latrines appropriate to water source, number and needs of users.
- Does the community need facilities adopted to disable / elderly people (especially women)?

Privacy and security

- Location and design for privacy and security of water points / latrines and bathing facilities. Safety around water sources, especially if women and children are primary users.
- Do women feel constrained to travel alone in public to the water point / sanitation facilities because of real danger of aggression or social disapproval?

Sanitary habits of women and girl

- What is appropriate to discuss; what types of materials are appropriate to distribute; how are children faeces dealt with?
- What are the cultural assumptions with regard to water and sanitation activities during pregnancy, during menstruation, anal cleaning, etc?

Cultural issues

- What are the main cultural issues which impact upon women's and men's access to water and sanitation?
- Do men and women share the same latrine (at HH level and Community level)

Traditional gender roles and power structure

- How do women perceive themselves in traditional roles and active participation? How much of this can be changed and how much can not be changed?
- Who decides how much money should be spent on water?

Suggestions for improving Gender Awareness

Community consultation

- Ensure recruitment of men and women on the team
- Ensure that women are available to talk to women and men to men in the assessment (especially when discussing sanitation and personal hygiene)
- Work separately with women and men's groups, where necessary, to counter exclusion and prejudice related to water, sanitation and hygiene practices.
- Women and men need to be consulted about convenient times and locations for meetings and they need time to be given time to re-organize their schedules.
- Involve both men and women in discussions on water and sanitation, including personal hygiene habits, general health and the needs and fears of children (do not just focus on women)
- Conduct consultations in a secure setting where all individuals (including women and girls) feel safe to provide information and participate in discussion and decision making.
- Include questions on cultural and ethnic beliefs on water usage, responsibilities and sanitation practices.

Link to hardware / Community training

- Provide 'coaching' advice to engineers and hygiene promoters on how to work with the community and make effective use of women's knowledge of the community.
- Provide formal and 'on-the-job' training for both men and women in construction, operation and maintenance of all types of water and sanitation facilities, including wells and pumps, water storage, treatment, water quality monitoring, distribution systems, latrines and bathing facilities.
- Ensure that the training is suited for the specific needs of women (timing, language, educational requisites, etc). The training needs to be especially tailor-made to the specific requirement of poor women and vulnerable groups.
- Offer training to men in water management, especially for single male-headed households which have previously relied on women to collect water and to manage the cooking, personal hygiene and domestic needs for the family (using men to men training)
- Work with community groups to expand, operate and maintain communal facilities, and dispose of liquid and solid wastes

Social research

- Through interviews with key informants, try to understand the power and social relations in the target communities and examine the roles, responsibilities,

- processes and workloads of children, women and men, the rich and the poor in terms of labour in their homes, hygiene practices and water use and management.
- Determine how women's and men's participation and skills acquisition influence power dynamics at the household level. Be aware of possible increases in domestic tensions and provide basic conflict resolution and support where possible.

Gender sensitization

- Develop special activities on gender sensitization for men.
- Target hygiene programmes not only to mothers, but also to fathers and other carers of children.

Protection Handout⁵

Protection is about improving the safety of civilians

Where there is a **threat** and people are **vulnerable** they are at risk.
The more time people face the **threat**, the higher the risk.

Threat + Vulnerability x Time = RISK

Example:

A woman goes out of her village to collect water. A man blocks her way and threatens her with violence.

The actions of the man are the threat.

The woman may be vulnerable because she is a woman, or from a certain ethnic group, and also because she has no water source in her village.

The more times she has to go and collect water the greater the risk to her.

Threats include:

- **Violence** - deliberate killing, wounding, torture; cruel, inhuman and degrading treatment; sexual violence including rape; the fear of any of these.
- **Coercion** - (forcing someone to do something against their will) - forced prostitution, sexual slavery, sexual exploitation, forced or compulsory labour, forced displacement or return, restriction of movement, prevention of return, forced recruitment, being forced to commit acts of violence against others.
- **Deliberate Deprivation** - destruction of homes, wells and clinics; preventing access to land or markets; preventing delivery of relief supplies; deliberate discrimination in getting jobs, education, land or services; illegal 'taxes' or tolls.

Reducing Risk

Non-governmental Organizations (NGOs) try to reduce risk by reducing the threat, reducing the vulnerability and reducing the time people face the threat.

NGOs work in co-ordination with others to do some or all of these actions:

To reduce the threat

- **Advocacy:** convincing those with power to protect people or getting others to put pressure on them to protect people
- **Capacity-building:** supporting the authorities to protect civilians
- **Presence:** using physical presence to deter attacks on civilians

To reduce vulnerability

- **Assistance:** directly providing services or goods so that people can avoid threats
- **Voice:** helping people to negotiate their own safety
- **Information:** providing impartial information to help people make informed decisions about their safety

⁵ Taken from: Improving the Safety of Civilians: A Protection Training Pack OXFAM

Hygiene Promotion and HIV and AIDS

AIDS is not a water-related disease and HIV is not spread via contaminated water or poor hygiene, however, HIV/AIDS can be considered as a global emergency and emergency contexts can often make people more vulnerable to HIV infection and / or to deterioration in their HIV status. The following - often interrelated factors may be typical in situations of political instability, war or conflict - and can play an important part in increasing the risks of HIV:

- Displacement
- Economic vulnerability
- Sexual and gender based violence
- Lack of health infrastructure
- Breakdown of social structures
- Human rights abuses
- Gender discrimination etc.

If adequate attention is not paid to the risks that HIV poses, a WASH intervention may at worst contribute to increased risk and at best fail to meet the needs of the affected population.

In carrying out your assessment you need to consider two essential questions:

- How will HIV and AIDS affect the programme?
- How will the programme affect HIV and AIDS prevalence?

The key questions to ask initially are: what is the HIV prevalence in the area of origin (of displaced people), what is the HIV prevalence in the area of stay (host population/non-displaced population), what is the likely duration of the emergency and hence the sustained vulnerability of the affected community and how are men, women and children vulnerable in this current situation. You will need to try and understand how the programme might affect the prevalence of HIV and AIDS, what the needs of people living with HIV and AIDS (PLWHA) are, and what your programme can do to mitigate the impact of HIV and AIDS.

Diarrhoea is one of the common complaints suffered by people with HIV and AIDS and, when chronic, can lead quickly to debilitation. In addition to the usual guidelines about water and latrine planning and supply, the following should be considered:

- train water and sanitation committees so that they understand HIV issues and the needs of those affected or infected in terms of sanitation and access to water
- be prepared for 'drop-outs' as illness may be an issue for committee members too
- consider the 'out-of-sight' needs of chronically ill and bedridden people
- consider lower pump handles and 5-litre jerry cans for children's use
- consider the design of facilities in order to make collecting water less arduous e.g. foot pumps may be easier to manage than hand pumps
- consider ramps instead of steps and a bar to hold when squatting
- consider the sanitation and water needs of those who may be bedridden

When raising awareness about HIV and AIDS be aware of the following:

- although it is good to give out information, do not just add on a message about HIV to general public health messages
- do not be negative or create additional stigma for PLWHA and their families
- provide information in an integrated way that is culturally appropriate, for example when discussing protection issues with women in a camp
- address the gender dimensions of the epidemic but do not portray women as victims
- touch the heart as well as the mind, making the message relevant and related to real life, and ask the audience to take action

Adapted from *Humanitarian Programmes and HIV and AIDS*, Oxfam GB, 2007

For further information see:

1) Humanitarian Programmes and HIV and AIDS: A practical approach to mainstreaming [Paperback, CD ROM], by Vivien Margaret Walden, Marion O'Reilly and Mary Yetter, Oxfam GB (2007)

The book explains both how HIV affects emergencies and how emergencies affect HIV, as well as identifying the particular needs of potential vulnerable groups. There is guidance particularly for managers in the planning stage, but the book also suggests how to mainstream HIV and AIDS throughout the emergency project cycle. It includes useful checklists and planning tools, with examples of inductions, trainings, and awareness-raising sessions both for staff and for community members.

<http://publications.oxfam.org.uk/oxfam/display.asp?K=9780855985622>

2) HIV and AIDS and Water, Sanitation and Hygiene, by Evelien Kamminga and Madeleen Wegelin-Schuringa (KIT) (IRC) (2006)

This Thematic Overview Paper is relevant not only for those countries that are already highly affected by the epidemic (mainly in Africa), but also those countries with rapidly increasing infection rates (in Asia and Eastern Europe) and those that are in the beginning stage or not yet affected by the epidemic. Among other things, this TOP examines:

- the linkages between HIV and AIDS and water, sanitation, and hygiene from different perspectives;
- the impact of HIV and AIDS on water and sanitation organisations and service provision;
- the lessons learned in preventing and mitigating the effects of HIV and AIDS both outside and inside the water and sanitation sector;
- what the water and sanitation sector can do about the problem of HIV and AIDS at different levels.

A PowerPoint presentation is also available to support training and awareness raising.

http://www.irc.nl/content/download/4199/48511/file/TOP2HIV_AIDS05.pdf

July 08

HIV/AIDS Transmission Routes

(A variation on three-pile sorting)

The purpose of this exercise is to encourage participants to discuss how HIV/AIDS is transmitted and to allow facilitators to explore what they already know about HIV/AIDS.

It provides a useful way to introduce the topic and to subsequently discuss the links with a WASH programme.

By the end of the session participants should be able to list the main ways that HIV/AIDS is transmitted and suggest ways that they can protect themselves. They should also be able to explain what the WASH project can do to respond to the threat of this disease.

- This exercise can be done with small groups of about 6/7 people to enable everyone to participate.
- Divide participants into small groups and provide each group with the set of picture cards provided.
- Ask the group to sort the pictures into three piles according to whether they think the pictures show high risk, low risk or ambiguous risk (either they are unsure or there are elements of both high and low risk) practices that contribute or otherwise to the spread of HIV/AIDS.
- Encourage as much discussion as possible. The facilitator can help to clarify any points of contention with the small groups.
- In plenary ask each group to suggest one or two cards that show how HIV is transmitted and to explain if this happens in their community. Ask the whole group to contest anything they don't agree with and clarify any misconceptions. Ask participants what might be done to prevent transmission? Challenge participants if their suggestions do not seem to be realistic.
- Ensure that each group explains the content of the 'third' pile of ambiguous pictures and that the issues identified are clarified where necessary.
- Ask the group to think of the relevance that the discussion has for them and their families and why they might be at greater risk of HIV/AIDS in the current situation.
- Ask the group what relevance HIV/AIDS has for the project they are working on e.g. are there people with HIV/AIDS within the affected population? How can they ensure that women feel safe in accessing the latrines and water points? How can they encourage greater awareness of the risks?

Community Participation and Gender Worksheet

(taken from Gender Perspectives: a gender training pack of the International Federation of the Red Cross)

Consider the profiles of the following individuals all of whom have been forced to leave their home country as a result of recent clashes between government forces and the guerrilla groups that are opposed to the country's military regime.

A 25-year old man

A teacher. Has just lost his wife and son who died when their house was torched during a raid by government forces trying to flush out guerrillas. He was working late on some exam papers at the school when the incident occurred. He is accompanied by his 3 year old daughter who survived the fire although sustained burns which are now infected.

A 15-year old girl

Has lost her whole family as a result of recent clashes. They were shot dead in front of her when they were shopping in the market. She fled with her neighbours.

A 50-year old woman

In good health. A midwife. Was attending a birth in a nearby town when the attack took place. She fled with everyone else. She has no idea if her husband and 2 sons know where she is.

A 12-year old boy, mentally-disabled

Apparently unaccompanied. He cannot explain how he got to the camp.

A pregnant woman in her thirties with 3 other children

Her husband, a military officer, has "disappeared". She made the decision to flee when her children became the target of bullying at their local school. She was trained as a typesetter for a newspaper but hasn't used these skills since starting a family.

A 70-year old man

Widower whose grown-up family has been living in a neighbouring country for 20 odd years. He's lost touch with them. He supplements his meagre pension by selling the eggs his chickens lay and doing some ad hoc book-keeping although his eye-sight is failing. He fled with his neighbours.

Your task

1. What are the immediate and long-term needs of each of the individuals in the case study?

In your group prepare a table outlining what your group believes are the immediate and the long term needs for each individual in the case study, as well as what you think their fears may be.

| | Immediate needs | Long-term needs | Fears |
|-------------------------------------------------------|-----------------|-----------------|-------|
| 25 year old man - teacher. | | | |
| 15 year old girl. | | | |
| 50 year old woman - midwife. | | | |
| 12 year old boy, mentally-disabled. | | | |
| Pregnant woman in her thirties with 3 other children. | | | |
| 70 year old man. | | | |

2. What role could gender analysis play in an assessment of refugee needs?

Participation Ladder Exercise

The Community does what I want it to do

I make the decisions but I ask for representation - the community has no power

I make the final decisions but the community participates in the project

I ask for people's views but I decide on methods for information gathering. No sharing of decision making

There is shared decision making but I am still in control

The community shares in developing action plans. There is two-way information sharing and participation is seen as a right

The community decides, sets the agenda and retains control - they may ask for outside assistance

Roles and Statements for the Power walk

Roles for the power walk

- Village shopkeeper (male)
- Head teacher (female)
- Unemployed young man aged 18
- Married girl of 16 years
- Village chair (man)
- Unaccompanied girl aged 13
- Unaccompanied boy aged 14
- Local sheikh/pastor/priest
- Grandmother caretaker of children
- Commercial farmer (male)
- Medical assistant (male)
- TBA (Traditional Birth Attendant)
- Chair of social services committee (female)
- Barmaid (etc. depending on the nature of the communities in that area)
- Leader of youth wing of ruling party (man aged 38)
- Leader of youth CBO (girl aged 16)
- Female petty trader at the village market
- Local councillor (man aged 50)
- Domestic worker of local councillor - girl aged 16
- Secondary school girl, daughter of local councillor
- Secondary school boy, son of TBA

Statements for the power walk (prior to emergency)

- I have been or expect to go to secondary school
- I will be invited to meet any important visitor from outside
- I can afford to go to a private hospital
- I can get easy access to condoms
- I can easily get a loan for an income generating activity
- I usually read a newspaper regularly
- I usually access to a television.
- I usually eat at least two meals a day for the whole year
- I have inherited/expect to inherit land from my parents
- I have relatives in town who send support
- I usually get new clothes for Christmas/Idd
- I wear shoes

Statements relating to the current situation

- I have received an adequate distribution of food
- I am able to purchase or exchange items in return for additional food items
- I receive some monetary support from my family (those unaffected by the emergency)
- I have access to a clean latrine
- I have enough water collection and storage containers
- I may be able to get a paid job with one of the NGOs
- I know what to do to manage diarrhea (in myself or my children) in the current situation
- I feel relatively safe walking around the camp/settlement
- I will not feel pressurized to earn money from sex work in this situation

How to do Venn diagrams⁶

Venn diagrams can be used to explore perceived relationships between different things. Circles of different sizes are drawn to represent different structures or organizations.

These circles are drawn so that they overlap, depending on the degree of contact that the structures have with each other. For example, they can be drawn to represent different stakeholders and their relationships within a community or a project. A Venn diagram can be done in a public setting but it works better as an activity with a small group.

- Explain to the participants that the purpose of the activity is to explore how the settlement works in terms of who makes the decisions and how organizations and/or groups relate to one another.
- Suggest that the participants first experiment with different sized circles and how they relate to one another. For example, ask them to consider the following structures: host government, international agencies, non-governmental organisations, community leaders, teachers, traditional healers, medical services, refugees as a whole group, elders, children, female heads of household, educated élite, community health workers, host population.
- Ask them how these structures are interrelated and the degree of influence that one has over another.
- The findings should be included in the project records.

⁶ Taken from Hygiene Promotion, A Practical Manual for relief and development.

Module 2: Useful to know available handouts

Hygiene Promotion Skills

Behaviour Change and Social Change

- Behaviour Change Models
- Catalyse Model
- Communication for Social Change and Hygiene Promotion

Using Visual Aids

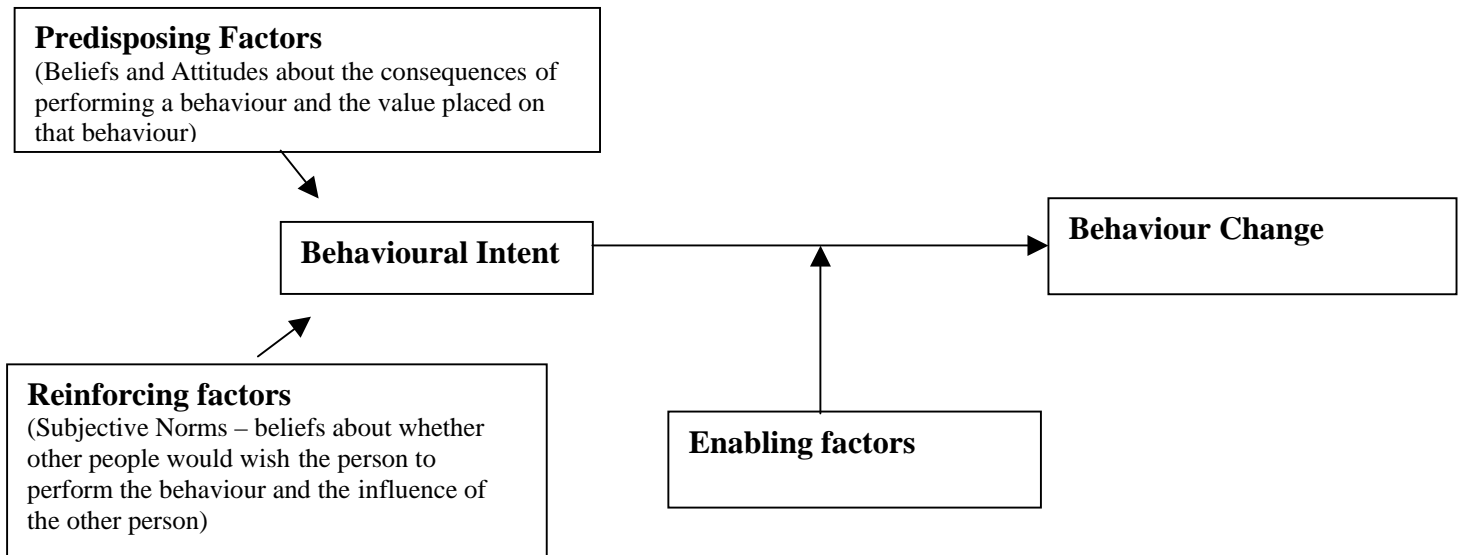
- Guidelines for designing posters
- Designing a leaflet

Use of Other Promotional Approaches & Communication Methods

- Overview of Social Marketing
- Overview of PHAST
- Overview of Child to Child
- Using role plays and drama

Behaviour Change Models

A simple model based on the work by Green and Kreuter (1991) and described by Hubley (1993) is shown below. This is known as the BASNEF Model.



Predisposing factors are knowledge, attitudes, beliefs, values, and perceptions that hinder or facilitate the motivation to change. **Enabling factors** are the skills, resources, or barriers that can help or hinder the desired behavioural changes. These allow a motivation to be realized. They may include availability, accessibility, affordability of health care or water and sanitation facilities and may also take into account the barriers to action. Enabling factors may also include new skills. These factors often become the target of health promotion. **Reinforcing factors** are the rewards received by the learner for the adoption of a behaviour. They are those consequences of action that determine whether the actor receives positive or negative feedback for that action. Such factors may include the physical consequences of an action, social support, peer influence or advice by health workers. Social benefits and social reinforcements can also be reinforcing factors. **Behavioural Intent** is the final step prior to action. This is influenced by one's attitude towards the behaviour and by the perception of what others think. In addition self-efficacy or the sense of being able to achieve something is also important.

All these factors collectively influence behaviour. There is not just one that causes the behaviour but rather a culmination of all of them. All three factors must be in alignment for the behaviour to persist. Direct communication to the target population strengthens the predisposing factors. Indirect communication to parents, peers and teachers strengthens reinforcing factors. Community organization strengthens enabling factors.

Beliefs, Values, and Attitudes

A belief is a conviction that an object or idea is real. The Health Belief Model (another model of behaviour change proposed by Becker et al 1994) is constructed on the premise of beliefs. A person must believe that his life is in jeopardy, perceive the seriousness of the condition, assess that the benefits outweigh the risks or inconveniences, and then be cued to action in order to change behaviour. Fear can also be a motivating factor for change. Values give us our understanding of right and wrong and a basis for justifying moral or ethical premises for actions. Recognition of values conflicts can be a motivation for change. Attitudes are a constant feeling toward something, and evaluation is the inherent structure of an attitude. Understanding how beliefs, values and attitudes relate to behaviour can help us understand the learning process. Attitudes and their potential relationship to behaviour have been studied extensively but in general, there is not a consistent relationship between the two. This may be because situational factors also exert such a powerful influence on behaviour.

The BASNEF Model and Hygiene Promotion Actions

| | Influences | Actions needed |
|-------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Beliefs & Attitudes (Individual) | Culture, values, traditions, mass media, education, experiences | Communication programmes to modify beliefs and values and to motivate individuals |
| Subjective Norms (Community) | Family, community, social network, culture, social change, power structure, peer pressure | Communication directed at persons in family and community who have influence. Motivation of communities. |
| Enabling Factors (Intersectoral) | Income/poverty, sanitation services, women's status, inequalities, employment, agriculture | Provision of facilities in an emergency. Programmes to improve income, sanitation provision, situation of women, shelter, skills training |

According to this model, an individual will take up a new practice when he or she believes that the practice has sufficient benefits - health, economic or otherwise - and considers these benefits important. He or she may then develop a positive attitude to the change. Positive or negative influences, or subjective norms, from others in the person's environment who are important to him or her, will also influence their decision to try the new practice. Skills, time and means ("enabling factors") are also required to take up the practice.

If a new practice is then actually found to have immediate benefits - a cleaner environment, less hardship, recognition from respected others - it is most likely to be continued. Improved health is seldom such an immediate benefit. It is therefore often not a major reason why the new practice is adopted, although when asked, people will often give this reason as they know that this is the expected answer. Usually there are other factors involved that will trigger the community members to actually adopt good hygiene behaviours and practices. It is important that for each group that you work with, you identify what it is that 'triggers' them.

Just asking people to change their behaviour or providing them with information is not enough. Achieving hygiene and sanitation attitude and behaviour change, among individuals and communities, depends to a large extent on the ability of the community workers to understand that people's beliefs and the enabling factors are as important factors to deal with as are providing information and knowledge. Discussions about how to ensure that all the BASNEF factors are addressed can be done by using appropriate participatory visualisation tools. The use of such tools makes it possible to discuss sensitive issues and ensures that even those who are not fully literate can participate effectively in the discussions.

Other behaviour change models also point out the importance of 'Maintenance' of the behaviour in order to prevent relapse. Behaviour change may become a habit and practised without consciously thinking about it but will often need reinforcing to prevent relapse into older practices especially when people change their circumstances or the context in which they live.

In an emergency it may be easier to motivate people to adopt positive hygiene behaviours because:

- people have been forced to change their hygiene routines anyway
- they may feel themselves to be more at risk
- funding is often available to provide people with the necessary water and sanitation facilities

Catalyse Model

Dialogue

ENABLE

Provide Facilities
Remove Barriers
Educate and Provide Skills

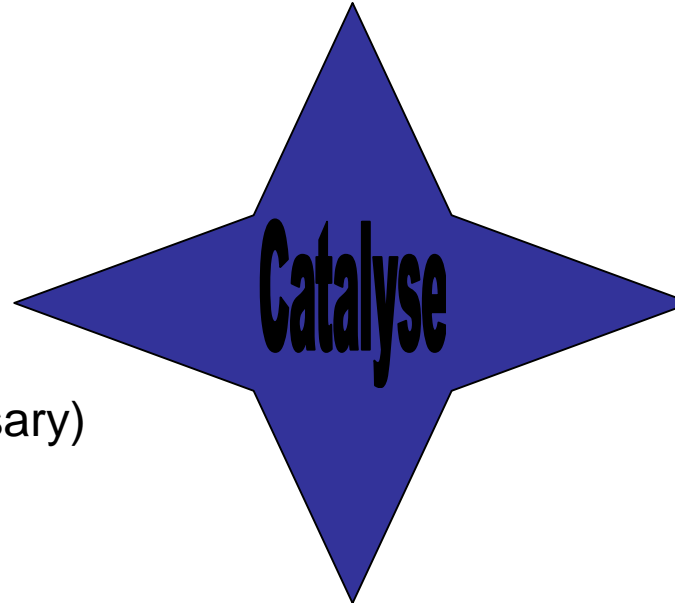
Dialogue

ENGAGE

Individual & Community
Action
Existing Networks
Opinion Formers

ENCOURAGE

Recognition
Reward Schemes
Penalties (where necessary)



EXEMPLIFY

Lead by example
Be consistent

Adapted from Defra 2005

Communication for Social Change⁷

Communication for Social Change (CFSC) describes a process where “community dialogue” and “collective action” work together to produce social change that benefits to the whole community.

The guiding philosophy of communication for social change can readily be traced to the work of Paulo Freire (1970), the Brazilian educator who conceived of communication as dialogue and participation for the purpose of creating cultural identity, trust, commitment, ownership and empowerment (in today’s term).

Communication for Social Change builds on these principles and draws on the broad literature on development communication as well as on theories of communication, dialogue and conflict resolution.

For social change, a model of communication is required that is dynamic and that leads to an outcome of mutual change rather than one-sided, individual change. The social change model describes a process that starts with a “catalyst/stimulus” that can be external or internal to the community. This catalyst leads to dialogue within the community that when effective, leads to collective action and the resolution of a common problem.

Community Dialogue and Action can be seen as a sequential process or a series of steps that can take place within the community, some of them simultaneously, and which lead to the solution of a common problem. The literature and previous experience indicate that if these steps are successfully completed, community action is more likely to be successful. Every time a community goes through the dialogue and collective-action processes to achieve a set of shared objectives its potential to cooperate effectively in the future also increases.

Seven outcome indicators of social change have been proposed: (1) leadership, (2) degree and equity of participation, (3) information equity, (4) collective self-efficacy, (5) sense of ownership, (6) social cohesion, and (7) social norms. Taken together, these outcomes determine the capacity for cooperative action in a community. The model also describes a learning process, which increases the community’s overall capacity for future collective action, and increases its belief in, and value for, continual improvement.

Communities are not homogeneous entities but are comprised of subgroups with social strata and divergent interests. As a consequence, disagreement and conflict are also incorporated into the communication for social-change model.

In the CFSC model, information is shared or exchanged between two or more individuals rather than transmitted from one to the other. All participants act on the same information; none are passive receivers of information. The information can be created by the action of any participant, or it may originate from a third source such as television or radio, or a person or institution not directly participating such as church, school, nongovernmental agency and so forth. The second feature of the model is that it stresses the important role of the perception and interpretation of participants and understanding is seen in terms of a dialogue or ongoing cultural conversation.

The 10 steps of community dialogue are:

1. Recognition of a Problem.
2. Identification and Involvement of Leaders and Stakeholders.

⁷Adapted from: Figueroa, M.E., Lawrence Kincaid, D. Rani, M., Lewis, G. **Communication for Social Change, Working Paper Series 2002** The Rockefeller Foundation and Johns Hopkins University Center for Communication Programs.

3. Clarification of Perceptions.
4. Expression of Individual and Shared Needs.
5. Vision of the Future.
6. Assessment of Current Status.
7. Setting Objectives.
8. Options for Action.
9. Consensus on Action.
10. Action Plan. .

The PHAST approach draws significantly on this model of communication for social change.

What relevance does CFSC have for Hygiene Promotion in Emergencies?

CFSC is more commonly associated with the process of long term change but many of the principles of CFSC can be applied to working in emergency contexts and can lead to a more creative way to work with people affected by disaster that ensures that where possible they have a greater say in the process of response and recovery.

Whilst time may be at a premium and it may not seem feasible to work through the 10 steps of community dialogue the importance of dialogue and the role that those affected have to play in influencing others and achieving community level change rather than individual change, should not be underestimated. The disruption caused by the emergency can in itself provide the necessary 'catalyst' to start the change process.

The knee jerk reaction in emergencies has often been to simply disseminate one way messages to change the hygiene behaviour of individuals. However, a greater focus on the way people can work together to achieve a common aim may be more successful. Those affected may also feel greater urgency to work with others to achieve solutions to the problems they are facing and the potential of this resource can often go to waste when more conventional approaches to hygiene promotion are employed.

Guidelines for Developing Posters⁸

Posters are a means of providing limited information and reminding people about specific issues such as hand washing or how to make up ORS. However, they do have their limitations and may be used simply as decorative items rather than as a means of motivating change. Care must be taken that the hygiene promoters' time is not taken up with developing a poster at the cost of more effective means of mobilisation. Alternative ideas for interactive methods of hygiene promotion are given in this DVD.

- Consider the public information objective of your poster. Is it to inform, demonstrate, persuade, or remind?
- Who is the target audience? Where can they be reached? Are there any target audience preferences for types of materials (e.g., non-print for low-literacy audiences, fotonovelas for Latinas)?
- What is the specific message of your poster? Are you trying to provide information about a particular skill e.g. making ORS or encouraging people to use latrines to dispose of infant's excreta?
- Posters should convey one simple, clear message. Use words from the audience's local language, and avoid being too technical.
- Use familiar images and simple illustrations. Images, colours, and symbols should be appropriate and logically organized.
- Stylised drawing or shaded drawings can be difficult to understand
- Take care with conventions such as cartoons with thought bubbles, maps, graphs or diagrams
- Avoid using symbols - crosses, arrows, ticks, skull and crossbones etc. unless you are sure other people attach the same meaning as you do
- Be careful when showing only part of a person's body as this may lead to misunderstanding.
- Text and illustrations should be balanced. Use a typestyle or font that can be read from a distance of at least two meters.
- Design posters with ample white space for easy readability.
- Posters must be pre-tested to ensure their cultural relevance (see section on pre-testing).

⁸ Adapted from CDC HIV health education and risk reduction guidelines
www.cdc.gov/hiv/resources/guidelines/herrg/pub-info_educational.htm
Linney, B. (1995) Pictures, people and power. Hong Kong: Macmillan.

Designing a Leaflet⁹

Leaflets are used mainly to deliver information and are distributed to people to use as a reference. This allows them to decide when and where they study the information. It will take time to develop a well designed leaflet and in the early stages of an emergency, dialogue with the affected community should not be undermined by diverting key resources into the design of leaflets and posters - especially where there are low levels of literacy. There are many alternative ways to convey key information to a population, especially one that has been traumatised and alternative suggestions on how to do this are provided on the DVD.

The process

Identify your target group and usual channels of communication

What language do they use? What is the literacy level of the population? What channels of communication do they use and what do they trust? Are leaflets a suitable mode of communication? Try to answer the questions below with reference to this group.

Make an outline for the information

Unlike posters, leaflets contain multiple messages and technical ideas that need to be organized in a logical fashion. An easy way to create an outline for a leaflet is to consider possible questions the target audience might ask to learn more:

- What is the problem?
- What is the magnitude of the problem?
- What does one need to know about it?
- Who does it affect?
- How can the problem be solved?
- Why should one want to change his or her behaviour or practices?
- What can people do to prevent the problem or to protect themselves?
- What will happen if the problem is not solved?
- Are there resources available to help? Where can they be found?
- Where can you find more information?

Make a draft copy of the leaflet and pre-test

In an emergency, it may be difficult to carry out a detailed pre testing of the materials you design but some level of pre testing for all 'stand alone' materials (e.g. posters and leaflets) should be attempted (see section on pre-testing). Information does not have to be presented in a conventional leaflet and it might be more effective to provide stickers for buckets, water tanks, latrine covers or school notebooks.

The important point to remember with a leaflet is not to cram it with text. People won't read it.

Your text should be:

- Persuasive, interesting to read, and catchy and memorable.
- Written in clear, simple language of the region or target cultural group
- Written in large typeset that is easy to read

Use short paragraphs and mark them with headings. Use bullet-pointed lists which are easy to read. You can pull out single lines and highlight them in a different font size or colour to make a strong point.

⁹ Adapted from information from the following websites:

<http://www.pressureworks.org.uk/usefulstuff/how/leaflet.html>

http://www.cartercenter.org/health/trachoma_education/leaflets.html

Monitor the effect of the leaflet

If leaflets have been distributed, it is important to understand if they have been read and understood and also if people have used the information in any way. Try to incorporate monitoring of the leaflets into your monitoring plan for a few weeks after the distribution.

Designing the leaflet

The size

The size and shape of the leaflet is an important factor in its success and it will need to be a convenient size to fit easily into a bag or pocket. Most leaflets are created as folded sheets of A4 (e.g. A4 is the size of the paper you usually use in a printer. If you fold A4 in half the size will be A5 and if you fold this in half again it will be A6.)

Picture and layout design

Try to identify pictures that help you to get your message across. Make sure you use copyright free pictures or that you have permission to use and reproduce the pictures. To get an idea of the layout, draw a rough sketch of:

- Where blocks of text will go
- Where headings will go
- Where pictures will go
- Colours for the text and background

An example leaflet could be laid out as outlined below:

Front Cover: a single, powerful statement and a hard-hitting graphic to support the leaflet's title.

Page 2: outline the problem: for instance, the situation against which you are campaigning.

Page 3: explain what you are trying to do about the situation on page two - and how, when and where.

Back Cover: provide information about your organisation. Include contact details for people who want to know more or want to get involved.

Printing

Any small printer will print, cut and fold your leaflets and may even help you with the design and it is probably better to get a professional to do this.

- All printers will cut your leaflet to size, so you must leave a "bleed margin". This is a space of 2mm around the edge of your design which can be lost in the cutting. Don't run any text into this space.
- If the quality of an image is too low, its corners will "pixelate" and go jagged. Your images should be saved as 300 dpi and preferably stored as JPG or TIF files.
- If your paper is too thin, heavy colours from one side of the paper will leak through to the other.

PHAST (Participatory Hygiene and Sanitation Transformation)¹⁰

GENERAL DESCRIPTION:

The PHAST approach is a step-by-step hygiene and sanitation promotion field guide written in non-technical language to help community-level field workers and facilitators. The PHAST methodology focuses on participatory learning and aims to empower communities to manage their water and to control sanitation-related diseases by promoting health awareness and understanding.

Several derivatives exist including a child friendly version (CHAST) promoted by Caritas and a fast-PHAST for emergencies promoted by the IFRC.

Given the time limitations and the difficulty of working consistently with disrupted communities, it may be difficult to apply the PHAST process in the manner suggested in the PHAST manual. However, the PHAST philosophy of employing a participatory, problem solving approach to motivating and mobilising affected communities can be applied to varying degrees at different stages of the emergency. The methods and tools employed by PHAST such as three pile sorting and mapping are also useful in facilitating interaction and discussion with affected communities.

In some emergency situations e.g. a cholera outbreak, there may be facilitators who have already been trained in the PHAST process and communities may not necessarily be disrupted or displaced. In such a situation it may be much easier to apply the PHAST approach as outlined in the PHAST manual.

KEY CONSIDERATIONS:

- The guide has seven steps. The first five help take the community group through the process of developing a plan to prevent diarrhoeal diseases by improving water supply, hygiene behaviours and sanitation. The sixth and seventh steps involve monitoring and evaluation.
- There is a significant amount of preparation to be done before beginning PHAST with a community group. This includes making a culturally relevant toolkit preferably via local artists and selecting the appropriate group (considering both demographics and size).
- The steps of PHAST should be followed in sequential order since each step equips participants with what they need to do or know to complete the next one.
- The group should keep a record of its findings and decisions for each step. Keeping thorough records means that participants can quickly review their progress when they need to.
- Each activity should be evaluated at its conclusion. Feedback on the relevance of activities, on what the group thought was good or bad, and on where improvements could be made, is important.

ADVANTAGES:

- The objective of PHAST is not only to teach hygiene and sanitation concepts (where needed) but, more importantly, to enable people to overcome constraints to change. It aims to do this by involving all members of society in a participatory process involving: assessing their own knowledge base; investigating their own environmental situation; visualizing a future scenario; analyzing constraints to change; planning for change; and finally implementing change.
- The participatory approach helps people to feel more confident about themselves and their ability to take action and make improvements in their communities. Feelings of

¹⁰ Adapted from IRC information sheets

empowerment and personal growth are as important as the physical changes, such as cleaning up the environment or building latrines.

- Each step of PHAST contains between one and four easy-to-follow activities and also instructions on how to facilitate each activity.

DISADVANTAGES:

- The participatory process will work only if there exists: respect for people's knowledge and ideas, with clear recognition of their individual and collective inputs; faith in the creative potential of people and in the synergy of the participatory process; a minimum of structure, a maximum of participation; loyalty to the group; and a commitment to creating opportunities for people to express themselves.
- PHAST relies heavily on the training of extension workers and on the development of graphic materials that need to be modified and adapted- therefore, if neither of these aspects is done well there can be efficacy problems.
- PHAST mentions that completing all steps can take anywhere from 2-6 months.

LIKELY SCENARIOS:

- Given the initial preparation work, to fully implement PHAST in an acute emergency situation is not possible. Therefore, while various tools and activities can be used, PHAST is more appropriate for long term post-emergency work where its activities, monitoring and evaluations can be completed but there may be some emergency contexts where PHAST is more likely to work than others i.e. where there is already some experience of using PHAST and/or where communities have not been disrupted or displaced.

PHAST IN EMERGENCIES

A shorter version of PHAST for use when 'PHAST needs to be FAST' has been proposed by various agencies including IFRC, Oxfam and UNICEF. However, this may still be problematic during the early stages of an acute emergency and may only work where extension workers or volunteers have already been well trained.

During a large scale displacement or outbreak of disease the PHAST process could be dramatically shortened as follows:

Step 1: Problem identification

Step 2: Problem analysis

Step 3: Selecting options for solutions

Volunteers would work with small groups of the affected community or water and sanitation committees on each of the above topics in succession. Depending on the urgency of the situation and as time progresses, it may be possible to include other steps and activities in more detail as show below.

EVIDENCE BASE

PHAST was extensively piloted in four African countries (Kenya, Botswana, Uganda and Zimbabwe) during 1993.

A randomized controlled trial was carried out in the Kyrgyz Republic in 2003 and showed a 68% reduction in Giardia in school children.

An evaluation of a PHAST program in Malawi (DeGabriele, 2004) showed that PHAST was being used as a hygiene promotion tool but not as a community development tool.

KEY TECHNICAL REFERENCES:

http://www.who.int/water_sanitation_health/hygiene/envsan/phastep/en/index.html

Social Marketing¹¹

What is social marketing?

Social marketing is the name given to the approach of applying lessons from commercial advertising to the promotion of social goals (in this case, improved hygiene behaviour). It is a systematic approach to influencing people's behaviours and thereby reducing public health problems.

Social marketing is not merely motivated by profit but is concerned with achieving a social objective. It goes beyond marketing alone as it is also concerned with how the product is used after the sale has been made. The aim is, for example, not only to sell latrines but to encourage their correct use and maintenance.

The key components of social marketing are:

- systematic data collection and analysis to develop appropriate strategies;
- making products, services, or behaviours fit the felt needs of the different consumers/user groups;
- strategic approach to promoting the products, services or behaviours;
- methods for effective distribution so that when demand is created, consumers know where and how to get the products, services, or behaviours with the different groups;
- improving the adoption of products, services, or behaviours and increasing the willingness of consumers/users to contribute something in exchange;
- pricing so that the product or service is affordable (financially or in terms of time spent).

What are the basic characteristics of social marketing?

As in commercial marketing, the 'four Ps' are the basic characteristics of the social marketing approach (see box below). Successful social marketing depends on good research to define each of the four Ps carefully. The Four P's are: **Product, Price, Place and Promotion**

| The four Ps of social marketing | Examples |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Decide on the product, its form, format, and presentation in terms of packaging and characteristics | The marketed product can be: <ul style="list-style-type: none"> • physical item e.g. a VIP latrines, SanPlats; or a • practice or behaviour: wash hands after using latrines; or an • idea: clean environment, good sanitation for health |
| Price Decide on what the consumer would be willing to pay, both in terms of direct and indirect costs and perceptions of benefits: make the product worth getting | The price can be : <ul style="list-style-type: none"> • monetary or direct costs: cost of products (with or without subsidies), social cost • opportunity/indirect costs: time lost from other activities, missed opportunities, transport, loss in production or income • psychological or physical costs: stress in changing behaviour, effort involved in maintaining latrine or obtaining additional water required |
| Place Where will the product be available to consumers, including where is it displayed or demonstrated? | The place is every location where the product will be available, e.g. at tea shops, religious buildings, at clinics, pharmacies, clubs and local businesses |

¹¹ Adapted from: LSHTM/WEDC (1998). [Guidance Manual on Water Supply and Sanitation Programmes](#). Published by WEDC for DFID.

| | |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Promotion How will the consumers know the product exists, its benefits, costs, and where and how to get it? | Promotion relates to the ways of delivery of the information about the product. For example this can be done through television, radio, newspapers, posters, billboards, banners, folk singers or dramatists, public rallies, interpersonal/counselling Because of its visibility, this element is often mistakenly thought of as comprising the whole of social marketing |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

What are the key steps in designing a social marketing campaign?

1. A sample of the intended audience is divided into different groups and questioned about needs, wants and aspirations (sometimes, existing consumer groups may be used to provide the same information). The groups collaborate in the development of feasible, attractive solutions. This data collection and testing is crucial to orientate the promotional activities.
2. Overall marketing (or promotion) objectives are developed.
3. The data are analyzed and used to develop an overall marketing plan in collaboration with key stakeholders.
4. The audience is divided into discrete units with common characteristics (audience segmentation).
5. Products and messages are developed based on consumer preferences and characteristics for relevant segments.
6. These are tested among representative samples of target populations. How much are people willing to pay for this product? How far are people willing to travel for this service? How feasible is the new behaviour?
7. Products, messages, and price are modified, refined, and re-tested until they are acceptable. Key stakeholders are consulted throughout this process.
8. The product is launched or service is introduced.
9. The performance of the product or service is monitored and evaluated in the market and the strategy revised accordingly. This may involve revising the marketing plan or improving the product or service.

Evidence Base:

Schellenberg et al (2001) used large scale social marketing of treated bednets in rural Tanzania. The approach increased the number of infants sleeping under treated bednets from 10% at baseline to over 50% three years later with an associated 27% increase in child survival among 1mth-4yr olds.

Olembo et al (2004) promoted the CDC Safe Water Systems using social marketing in Zambia. The program showed a rise in point of use chlorination of water from 13.5% in 2001 to 42% in 2004

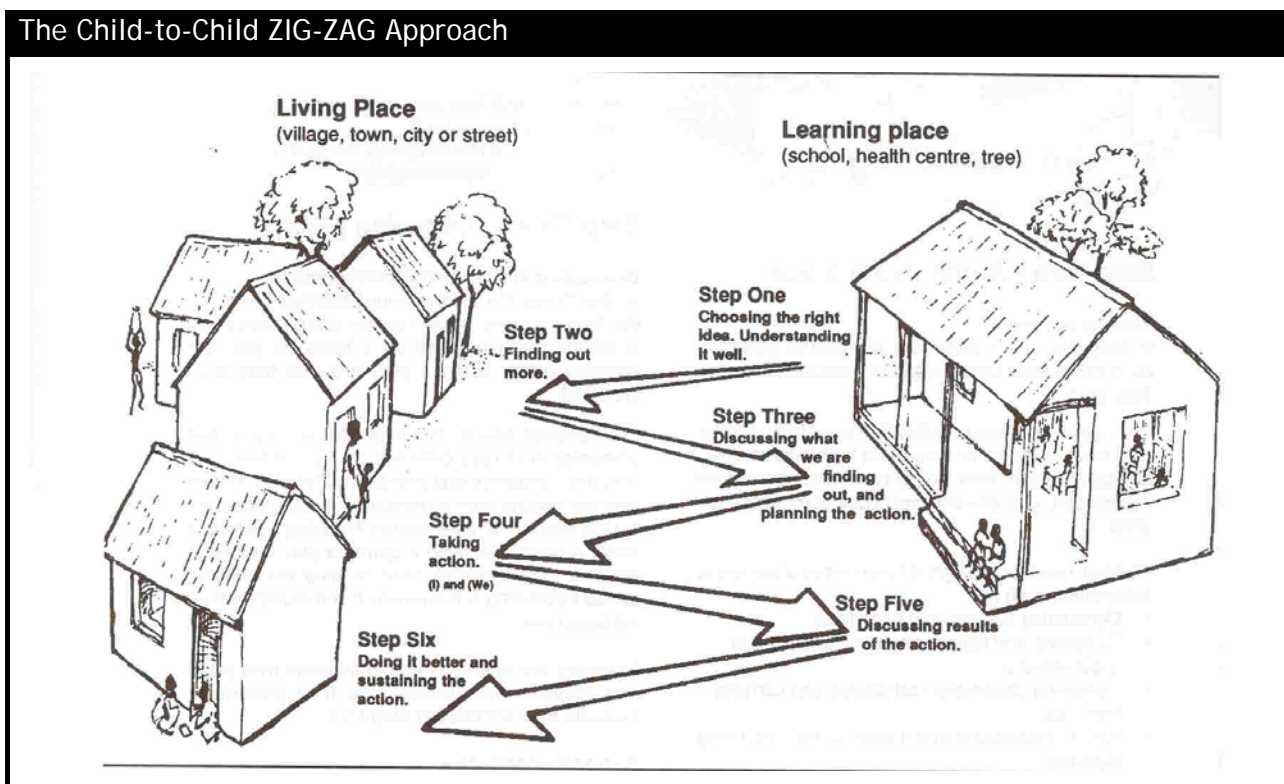
How can the social marketing approach contribute to hygiene promotion in an emergency?

Undertaking a social marketing programme in an emergency is not usually possible as a significant amount of time is required to research and understand the problem and identify an appropriate strategy. However, the emphasis on understanding the 'consumer's' viewpoint, creating a demand for water, sanitation and hygiene and emphasising the positive benefits of engaging in improved hygiene rather than the negative consequences i.e. death or disease as in traditional hygiene education, are important principles that can be applied even in an emergency.

Where there are cyclical emergencies e.g. cholera outbreaks social marketing has been used to good effect following the necessary formative research.

Child To Child¹²

Child to child is an approach to teaching health, which encourages children to participate actively in the process of learning and to put into practice, what they learn. It is an approach that can make health education more exciting. The Child to Child approach recognises that children in many countries may be responsible for looking after younger brothers and sisters and in their role as caretakers are in a position to educate and support them to ensure better health. Children may also influence other members of their families and encourage them also to take action to promote health in the home and village. Schools can also set an example of better health to the rest of the community and in this way there is a continual interaction 'zig zagging' between school and community.



Starting the project

- **Gathering the children**
Projects using the Child-to-Child approach can happen wherever children can get together easily and frequently. This may be a school, a health clinic or any special place agreed by the community, for example a feeding centre, a water collection point, or under a shady tree.
- **Choosing activities**
The planning committee, the project organiser, the children themselves, or a combination of these might choose the health topics and activities. All activities should be:
 - Important for the health of the children and their communities
 - Easy enough for children to understand
 - Simple for children to do well
 - Interesting and fun!
- **Getting Going**
Experience has shown that the Child-to-Child activities work best if they are introduced in a series of steps as shown on the following pages.

¹² Source: Oxfam and Child to Child Trust: www.child-to-child.org

Step 1

Introduce 'The Idea' and help children to understand it better. For example caring for children with diarrhoea:

Diarrhoea is dangerous because it can kill and cause malnutrition. It can be prevented by keeping clean, using clean water and by eating properly. Children who get diarrhoea may die because they become dehydrated, that is, they lose too much liquid from their bodies. The liquid they lose must be put back into their bodies. Special drinks (ORS) can be prepared by children to help replace the lost water when a child has diarrhoea and can prevent dehydration.

Use practical activities to reinforce the ideas like role play, puppets, storytelling and games to understand how people feel and react. For example: the children describe their experiences of diarrhoea, the words used to describe it in their family and the treatment for it

Step 2

Getting the children to find out more:

The children can find out things among other children, among parents and among others in the camp.

For example: the number of children in the group or family who have had diarrhoea and how it affected them

Step 3

Discussing what the children found out and planning activities that will help:

Discuss possible action, find out who else can help the children with practical actions, and make a plan of action

For example: what can 'I' do to prevent diarrhoea
what can 'we' do if another child is affected
what can we do to teach others about the dangers

Step 4

Taking Action:

Do practical activities at home. Share new ideas and messages with members of the family and friends. Do activities in the camp

For example: making, mixing and tasting a special rehydration drink (ORS)
Giving the special drink to children who have diarrhoea
Checking that people know about dehydration from diarrhoea

Step 5

Discussing the results of the activities and asking, "How did we do?"

Test knowledge and skills of children in the group and of others in the camp

Observe attitudes and practices of adults and children

For example: how many of us now know how to make the special drink?
how many have passed on the ideas to others?

Step 6

Doing the activities better next time!

Some Examples: Clean Safe Water

Step 1 The Idea

Every living thing needs water to live, but dirty water can make us ill. We must be careful to keep water clean and safe - where it is found, when we carry it home, and when we store and use it.

Have three pictures of:

1. Two women getting water at a pump
2. A child drinking a glass of dirty water
3. Another child drinking a glass of clean water

First ask the children to make up a story about the first picture, describing who, when, where, what, and why. Ask if the water from the pump is clean?

Then show picture 2 and explain that this is one of the first women's children drinking water she brought home from the pump. Ask what could have happened between the first and second picture to make the water become dirty? Have the children continue with the story.

Next show picture 3 and explain that this is one of the second women's children drinking water she brought home from the pump. Ask what has this women done to keep her water clean? Have the children finish the story.

Step 2 Finding out more

Have the children make a water map of the camp or community. Go and see the sources of water in the area. Which are clean and well looked after? Which are dirty? Draw the map on a piece of paper.

Find out about how people store water in their homes. Do they put it into a clean, covered container? Do they use a separate container, e.g., a cup, gourd or ladle to get water out of the storage container? Make a chart like this and record the information.

| Water Storage Containers | | | | | |
|--------------------------|---|---|---|---|---|
| House | 1 | 2 | 3 | 4 | 5 |
| Clean | * | | * | | |
| Covered | | * | * | | |
| Ladle | | | * | | * |

Step 3 Discussing and planning to take action

Examine and discuss the maps and the charts the children have made. Use these as a basis for planning activities that address the problems that they have identified. For example create a play about keeping water sources clean and/or make a poster that depicts a child using a clean separate container to get water from a storage container. Help the children with the skills to get the right message across. It is essential that the health messages are correct and clear, wrong or muddled messages could have long term negative effects. Discuss how they will know whether the play helps the community members to keep the water sources clean or if the poster is effective in encouraging people to store water properly.

Step 4 Taking Action

Create a play for people about the importance of keeping their water sources clean from rubbish, stopping people urinating near it, allowing animals to drink from it, etc. Perform the play near the water sources or in the market place. Make a poster showing a healthy child using a clean cup or gourd to get water from a storage container with a message about keeping water clean to stay healthy. Display in health and feeding centres, market areas, etc.

Step 5 Discussing the results

Ask the children how well they thought their activities were carried out. Did they encounter any unexpected problems? If so, discuss these and look for alternative solutions. Ask the children what effect their play and/or poster had on the knowledge and practice of other children, families and the population as a whole. How will they know in the longer term?

Tell the children to plan on observing the water sources and drawing new maps on a regular basis and keeping a record of the information. Do household surveys using the same time schedule and record if any positive changes have been made in the practices of storing water.

Step 6 Doing It Better Next Time

Tell the children to think about their play and/or poster. What could have been better? How could the message have been clearer? Practice the play again and/or paint the poster with brighter colours, etc. and do them again to reinforce the health message for the population. Ask

the children to think of ways of keeping water clean that can be made long term and a feature of everyday life.

Working with Schools

Sometimes a school can agree an action plan to help everyone receive and understand such messages. Staff, parents and even children can list those that they think are most vital for children to know and do. They can then plan how they can achieve them:

- through health teaching
- through reinforcing the ideas in other subjects
- through action to make the school a good example
- through community activities organised by the school.

They can then decide how to check to what extent these plans are being achieved.

It may be possible to have the whole school a living example of child to child in action. Staff and children agree a set of rules to live by, for example:

In a child-to-child school, we should all know...

In a child-to-child school, we practice.....

In a child to child school, we spread these ideas.....

From Child to Child: In Mozambique, Good Hygiene Begins at School

In the outlying area of Beira City in Mozambique, primary school children as young as seven are transforming once dank and dirty schools into healthy, inviting places of learning, in the process educating their peers, their families, and their communities about the importance of safe water, good hygiene, and private, separate sanitation facilities.

In the year 2000, UNICEF found that 80% of all primary schools here had no toilets for either boys or girls and no handwashing facilities, and few schools promoted better hygiene. To change this situation, UNICEF/WES supported the building of latrines for primary school students and teachers and handwashing facilities for practicing hygiene, and trained 17-24 year-olds to teach students about the role they could play to improve their school and community.

The most potent tool in the program turned out to be the children themselves. In 15 primary schools with 18,000 students, child-to-child sanitation clubs sprang up, promoting hygiene and healthy school environments. The young people pushed for central rubbish collection spots so that they no longer had to share their play spaces with garbage, and through theatre, song, dance, and games they warned of the dangers of unhygienic environments, especially for children. Irene Luisa da Costa Tivane, a 10 year-old child-to-child club member, is certain that she is making a difference.

"Participating in hygiene promotional activities is fighting diarrheal diseases," she said. "That's why everybody should drink chlorinated water and know how to use a latrine."

Flávo Varela de Araújo, 14, is an active member of the child-to-child radio program, which supports the school sanitation clubs. He's very proud of the changes he's seen taking place in the school. "Because of the club the school environment is changing," he said, "and the students' behaviours are changing too. We will continue supporting safe practices."

And the students' exemplary behaviour is catching on, as parents are listening to their children and practicing better hygiene at home. After seeing the changes in their children's schools, parents have begun to press local authorities to provide better hygiene education and services in all schools. Meanwhile, UNICEF is working closely with the Ministry of Education to see how this program can be replicated elsewhere.

The benefits of child-to-child sanitation clubs combined with building latrines and handwashing facilities have exceeded all expectations. Not only have these efforts provided safer, healthier learning environments, they have also encouraged girls' education. Older girls used to drop out of school for lack of privacy, but now they are staying in school to complete their basic education. The improved hygiene facilities have given girls back their dignity—and their books.

Source: UNICEF/WES

Role play, drama, street theatre and puppet shows

Role Play

Role-play is the use of drama in which people act out situations for themselves in order to acquire communication and problem-solving skills and understand situations more fully. Role-plays can help us learn more about people, their motivations and their behaviours.

Role-plays can vary in length from ten minutes to a whole day. Participants try to imagine themselves in the roles of other people and respond to a situation as they think their character would do. This can help them to understand other people's views and to anticipate how they might respond in a similar situation. When performed in front of a group, role-play can encourage discussion and can lead to working out solutions to a particular dilemma.

The purpose of the role play should be carefully explained at the beginning of the session to help overcome possible reluctance or feelings of embarrassment. At the end of the session each of the participants should be debriefed and helped to disengage from their role characters. This can be done by asking each participant in turn to introduce themselves again and to share their feelings about their roles and the role-play. If this is not done, uncomfortable feelings brought out by the roles and between the actors may cause problems later.

Street-theatre/drama

Street-theatre has its roots in story telling and can be used as a learning tool and as a way of passing on hygiene messages. Street theatre is short, lively and spontaneous and is flexible enough to allow audience participation. Equipment for street-theatre is minimal and productions can be put on anywhere and literally in the street. Street theatre can be carried out as dramas with actors or with puppets acting out the scenes. Some suggestions for things you can and can't do effectively with street theatre are listed below. Street-theatre has been carried out in a number of settings, including refugee camps to promote safe water use and the maintenance of water-points.

Do's and don'ts for street-theatre dramas

Do's

Men dressed as women.

Comic village stereotypes, e.g. drunkards, 'lads', obsequious servants, simpletons, beggars, traditional healers, dishonest merchants, religious leaders.

- Exaggerated characterization.
- Villain/hero conflicts ('goodies' and 'baddies').
- Macabre incidents, e.g. ghosts returning, death, white sheets.
- Dance and song.
- Asking the audience questions (Where is she?) and getting them to reply (She's behind you!).
- A few simple messages.
- Frequent repetition of the messages.
- Messages made clear through actions rather than words.
- Audience participation (asking members of the audience to come into the performance area and join in with certain tasks).
- Spontaneous and lively with a minimum of characters and props.

Don'ts

- Long gaps between scenes.
- Fast speech.
- More than one person speaking at one time.
- Scenes involving sitting or lying down.
- Long speeches or dialogues without action.
- Lecturing one actor by another.
- One actor playing different roles that may be confused, e.g. dishonest pharmacist and doctor.
- Complicated plots and detailed scripts.

How to do street theatre - drama

The purpose of this exercise is to promote better hygiene practices in an entertaining way.

- Brainstorm what makes a good show

The facilitator can suggest these if the participants do not:

Humour (jokes, men dressed as women, stereotype characters)

Drama (hero/villain style, ghosts, death)

Action (lots of movement, not much sitting/lying down)

Interesting dialogue/story (clear slow speech, one actor speaking at one time, no long speech by one actor)

Involving the audience involved (pantomime style etc.)

Local reference (relevant comments to the audience)

Getting the message across.

- Talk through the "Do's and Don'ts for Street Theatre Drama"
- Warm-up

(It may be awkward doing warm-ups but the drama is much better if you have a warm up first)

Try standing in a circle and making animal noises (dog, cat, chicken, cow etc.) Then try acting out stereotype characters (angry wife, drunk husband, beggar, mayor.)

- Decide with the participants the message to be promoted in the community. Then allocate titles to groups.
- Explain that the plays should be 5 to 10 minutes long and will be done outside in the street or around water points. Allow 1-2 hours to work out roles and for preparation of plays and making/gathering of props.
- Ask each group to perform their dramas in turn.
- After each play give feedback on what worked and what did not work. The first to feedback should be the group itself, then other groups can feedback. Facilitators should feed back last.
- The logistics and arrangements for the performance of the drama(s) in the community setting must be discussed and planned.
- THEN PRACTICE AGAIN ... and perform!

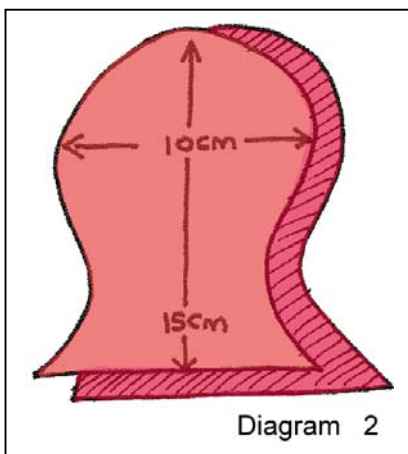
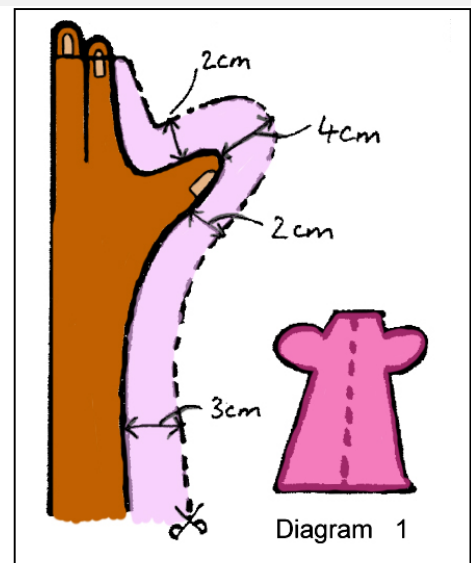


When preparing plays for public performance:

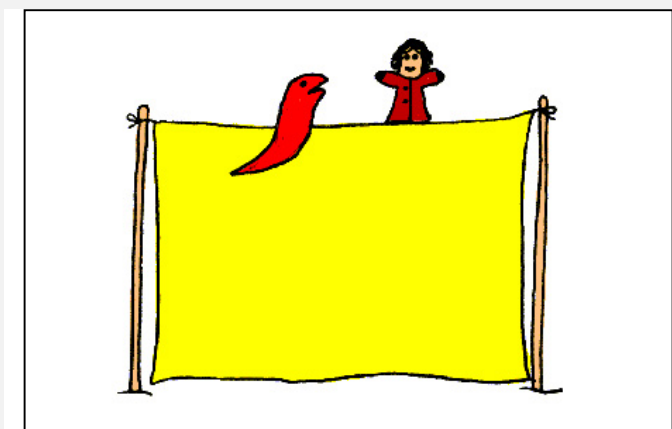
- Organise people to help seat the crowd in readiness for the performance. Play music while the crowd gathers and is seated.
- Announce the start and ask for applause. Wait for crowd laughter to die down before continuing speech. Don't rush the performance.
- Ask questions of the crowd at the end of the show and repeat correct answers. Ask for applause for each correct response. At the end, thank the crowd and ask them to disperse.

Making puppets

- Simple puppets can be made from mounting cardboard cut out figures on sticks or painting features onto wooden spoons, cardboard tubes or paper bags. (Glove puppets are easy to make and effective to perform with as they are able to pick things up.)
- To make the body, fold a long piece of paper and put your second finger on the fold like this. Draw round your hand and forearm as far down as your elbow, leaving a margin to make a template as shown in the picture. Cut the template along the drawn line, unfold it and pin it to a double layer of cloth. Cut the cloth out and sew it up, leaving the bottom and the neck open. Turn it right side out. Hands and the head can be attached to the body. The puppeteer's fingers must still be able to reach to the top of the puppet's hands.
- To make a puppet head, take thin foam, (0.5cm) and dye in a solution of water and brown poster paint or strong black tea. Squeeze out the water and dry. Cut a head shape out of double thickness foam, sew these pieces together and stuff with kapok/wadding/cotton wool. Make a cardboard tube, wide enough for two fingers and insert it into the neck. Make sure that you sew through the card as well as the cloth when attaching the body to the head. Sew on foam ears and stick on a foam nose. Draw features with marker pens. Make hair by attaching strands of wool, or with marker pens.



- To make a portable screen, a length of cloth can be attached to two sticks and supported by people or roped to chairs.



Puppet shows

Puppets can be used to give theatre performances or with small groups to encourage discussion. They are especially helpful for communicating with small children as they will often talk directly to a puppet although they may be too shy to talk to an unfamiliar adult. Puppets are also able to do things that actors or ordinary people physically or culturally cannot do.

Do's and don'ts for puppet shows

Do's

- Short simple plots.
- Stock characters, e.g. traditional healer, beggar, villain.
- Speaking animal characters, e.g. fly, worm, louse.
- Interaction between puppets, e.g. beating, carrying, embracing, (especially those interactions that human actors cannot do).
- Swift changes between scenes.
- Very loud, slow speech.
- One character speaking at one time - the puppet should move or nod when speaking.
- Music and dance.
- Comic sound effects e.g. baby going to the toilet.
- Character moving when speaking.

Don'ts

- Long monologues by single puppet.
- Messages conveyed through words alone rather than words and actions.
- Puppets asking the audience questions during the show.

Module 2: Useful to know available handouts

Role of the Hygiene Promoter

Community Management of Facilities

- Oxfam Briefing Document on Community Management
- Bujumbura Case Study
- Roles and Responsibilities of WASH Committees

Community Management Briefing document¹³

Sustainable Water Supply & Community Management in Emergencies

This briefing paper is intended as an overview of current thinking in providing sustainable water supplies to rural communities within the context of emergency interventions. The extent to which it is possible to achieve sustainability in emergency interventions has not been investigated in any depth and this briefing paper therefore relies on research from longer-term development and a common sense application to the emergency context.

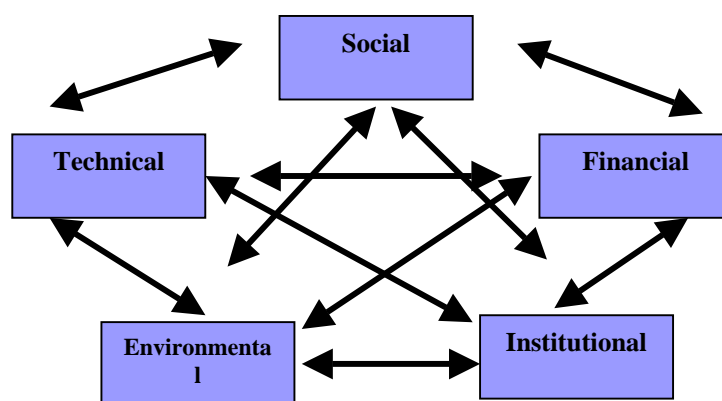
In the last decade, the move to promote community management of water supplies within the development context has gathered momentum. Given the breakdown in government services common to many complex emergency situations as well as Oxfam's emphasis on promoting community participation and empowerment, this approach has been adopted by most humanitarian interventions in one form or another. In recent years, however, it has been acknowledged that community management approaches 'have not been noticeably better at sustaining systems than those that went before' (Schouten & Moriarty 2003). This is not to say that community management is an inappropriate approach - given its goal of making communities stronger and more cohesive and the weaknesses in many existing government systems, especially in complex emergencies. What is critical, however, is a more detailed understanding of the criteria and conditions necessary for a sustainable intervention and the application of these criteria to Oxfam's programmes. In the emergency context it may be necessary to accept the concept of 'sustainable enough' where whatever is possible is put in place but with the knowledge that probably more will be required once the situation stabilizes.

What is Sustainability?

Sustainability can be understood to mean the lasting provision of improved water supply service such that the community will never have to revert to a lower level of service in terms of quantity and quality. Ideally, sustainability would also comprise the replacement or upgrading of facilities as necessary.

Ensuring a sustainable water supply is not the primary objective of an emergency intervention and this may explain why the issue has received so little attention in the past. However, it would seem irresponsible to implement systems and ignore the potential that these systems have to improve the quality of life for people beyond the crisis period, especially as we know that in many situations there is protracted conflict and disruption that leaves people living in an almost permanent state of vulnerability. Whilst the extent to which systems can be made sustainable in short term emergency programmes is not yet clear, it should be remembered that in many countries Oxfam has a relatively long term emergency engagement with specific regions and even communities.

Sustainability can be seen as comprising five interconnected elements as shown in the diagram below:



¹³ Draft Oxfam Briefing Paper 2005

In any programme, each of these factors needs to be assessed to understand how to maximize the potential for sustainability.

Local and National Government

In the past, community management has often been promoted to the exclusion of government involvement but it should be accepted that sustainability is unlikely unless the government is a central part of the process. Research to date shows that ongoing institutional support is required for sustainable rural water supply services. Governments are in the best position to take on this role although there may be other organizations (such as local NGOs or faith based organisations) and the private sector that are also able to take on some of the responsibility. Institutional and policy frameworks are required to ensure that community management is supported and legitimized. Regulation of private enterprises undertaking maintenance will also be required. Legal ownership of water supplies may be a more important factor than contributions made to initial costs in determining people's 'sense of ownership' and therefore motivation to ensure facilities are cared for and maintained. The enforcement of rules regarding the management of water supplies and the ability to bring defaulters to justice is also seen as crucial to the success of community management. In the emergency context, every effort must be made to ensure that the links are made with local and national government and where possible that government capacity to support long-term maintenance is strengthened.

Community Management

According to Schouten and Moriarty (2003), four factors must be present to determine whether a community is managing a system: control, ownership, operation and management and contribution to costs. Control and ownership are the defining factors and the key to successful community management. Control refers to the 'ability to make strategic decisions about how a system is designed, implemented and managed; to select service levels, set tariffs and if desired employ someone else to look after the operation and management.' (ibid). The carrying out of operation and maintenance tasks, as suggested by the Village Level Operation and Maintenance (VLOM) approach is not essential to the concept of community management as others can undertake these activities with the community managing the process.

Meeting these criteria may not always be possible in the initial emergency intervention but as the situation stabilises, greater control by the community may be possible. However, it is a misconception (and one still widely held) that communities are capable of autonomously managing their own water supplies

It must be remembered that the community is not an homogenous entity but is made up of men and women with different levels of wealth and education. There may be social divisions in terms of religion, caste, ethnic group or class. Gender inequity may also mitigate against a sense of shared ownership. In emergency situations, social organization may be disrupted even more when people are living in camps. There will be those who want to participate and those who want the benefits but who do not want to pay the price. Leadership will be strong in some communities and weak in others. Understanding these factors and ensuring that they are taken into account in project planning is vital.

Capacity building and support will almost certainly be required and ideally should be sustained after the end of the project. A two day workshop to train committee members is insufficient and it is often unrealistic to simply hand over facilities to a community when they are not fully prepared to meet the challenges of operating and maintaining the system on their own. Unrealistic demands are often made of communities such as the regular payment and depositing of maintenance fees when in reality people are often only willing to contribute when the system stops functioning. A one off payment may be preferable, that coincides with the time that people are most likely to have money such as harvest time. In addition incentives are usually

expected for committee members and pump attendants/operators and these will need to be considered and budgeted for.

Given the diverse nature of communities and situations there is not a standard model or package that can be applied to ensuring adequate maintenance or community management. Each situation must be assessed individually to take into account the specific needs of the situation and to ensure dialogue and collaboration with existing service providers. It should be borne in mind that what people want is a functioning, reliable and affordable system and not just the promise of control and ownership in the guise of a water committee.

Alternative Models of Service Provision

Reed & Harvey (2004) outline three models of service provision currently in existence: Village Level Operation and Maintenance (VLOM), Public Private Operation and Maintenance (PPOM) and Private Ownership, Operation and Maintenance (POOM).

The VLOM approach is the original community management model and has developed over time. It may take various forms such as the training of community volunteers (hand pump attendants) to carry out maintenance and simple repairs or the training of a number of area pump mechanics who are called on if a problem arises. However both approaches need significant support from outside if they are to work as it is unrealistic to expect that community members can be trained to undertake major repairs or that they will continue to work without some form of reimbursement.

The PPOM approach does not rule out community management as the community can still own the facility and make decisions about its management but operation and maintenance are carried out by an external agency. Examples of Public Private Operation and Maintenance (PPOM) include the following:

Total Warranty Scheme: The pump manufacturer takes on the responsibility of supporting and training local enterprises to carry out maintenance and of supplying spare parts. The users pay an annual contract fee to the local enterprises. This has been piloted by the company Vergnet in Mauretania and several French speaking West African countries.

Water Assurance Scheme (WAS): This is similar to the Total Warranty Scheme but covers all types of technology rather than just handpumps and the emphasis is on the ongoing provision of safe, adequate and accessible water. Communities pay an annual sum to a private company that provides a maintenance and water monitoring service as well as a repair service for as long as the premium is paid.

In both the above examples, an established private sector is required and an adequate density of systems is required to make it financially viable for small enterprises. The government's role is in regulating the service.

Private Ownership, Operation and Maintenance (POOM) often understandably results in high levels of sustainability where the owner is making a profit from the sale of water and therefore has a strong incentive to repair the pumps whenever a breakdown occurs. Payment may be given in cash or kind. In some instances, it may be appropriate to rehabilitate such a system in an emergency but guarantees of future access for the beneficiary population will need to be assured and contracts drawn up to this effect (Oxfam Haiti can provide examples of this).

The hand pump leasing scheme provides another model of private ownership. The hand pump leasing scheme allows the community to own the borehole or well but to lease the hand pump from an external agency (such as the local water authority) for a fixed fee. Maintenance of the hand pump is then carried out by the agency.

Spare Parts Supply

The initial choice of technology can be seen as the crucial factor in achieving sustainability and locally produced pumps and spare parts is the ideal choice. However, in the emergency context it may only be possible to procure high quality pumps elsewhere and this may subsequently mean that the supply of spare parts is compromised. Even in longer term situations the supply of spare parts remains problematic and is rarely a cost effective venture for small businesses due to the low pump density and low turnover of stock. It is important to understand the government policy on maintenance of hand pumps, including the provision of spare parts. The provision of a stock of spare parts should always be considered and budgeted for to at least ensure short term sustainability.

Advocacy

A key aspect of ensuring more sustainable water supplies in emergencies is advocating with governments and other organizations for attention to this issue. It is only recently that the need for ongoing support for community management is being recognized and raising awareness amongst other stakeholders (including donors) in a water and sanitation project is vital if progress is to be made.

Guidelines for Oxfam Staff

Whilst the type of situation that Oxfam responds to is very varied, it may be helpful to think in terms of the acute versus the chronic situation. Below are some of the general issues that it is important to consider. In the acute situation there may not be enough time initially to assess in detail or implement all of the following factors as work may need to begin immediately. However, an assessment should take place as work is proceeding and changes in design should follow where possible.

- A more detailed assessment of external conditions is important- ensure access to government guidelines and plans for maintenance and the supply of spare parts.
- Avoid using a blueprint approach but ensure discussions with communities to provide some level of choice of technology and service provision where possible (**community maps can be a good starting point**)
- In the acute situation, concentrate on ensuring representation from key men and women in the community, identifying those who are vulnerable and on trying to make sure that the government ministries are involved.
- Do not automatically set up water committees - explore existing structures and mechanisms first and work through these where possible and appropriate.
- A community planning group may be more suitable than a committee in a short term situation and may help to encourage a sense of ownership that government programmes can later build upon.
- Emphasis should be placed on making men, women and children aware of their responsibilities with regard to the new facilities and that they will need to consider how they will be maintained in the future (**use critical incident pictures**)
- The importance of promoting linkages between the project and relevant government sectors cannot be over stressed. This does not just mean working with the water board or equivalent but involving all those long term structures that might support sustainability e.g. health department, welfare department, local NGOs or church groups etc.
- A stakeholder meeting could offer a valuable opportunity to ensure that people have the time to discuss key issues such as technology choice and maintenance prior to the project
- Consider both willingness **and** ability to pay now and in the future when the situation has stabilized
- Consider how the poorest and most vulnerable will be catered for now and in future e.g. through subsidies or free access.
- Ensure an adequate assessment of livelihoods and implications for water provision (water requirements for livestock may be high but livestock owners may have greater capacity to pay for maintenance).

- In an area where there is a high or increasing incidence of HIV/AIDS, the choice of technology will require particular care to ensure that it is easy to use. The distance between water sources and households will also need to be assessed and the minimum standard may need to be adjusted.
- Explore existing structures that may offer long-term support within local government and community e.g. faith based organizations or indigenous NGOs (**Venn diagrams are a useful way to explore these relationships**).
- Select training sessions as appropriate and adapt rather than provide a uniform training - concentrate on ensuring that people (men, women and children) understand the issues and practical implications with regard to maintenance and facilitate them to make their own plans - ensure that the wider community is brought into this process through structured community meetings.
- Do not leave training until the end of the programme - allocate resources to ensure this is done as early as possible
- If the situation permits initiate/support/facilitate meetings between local and national government representatives to discuss policy and strategy - (make provision for this in budgets).
- The setting of tariffs and payment schedules should be done with key representatives from the community (community leaders, women, vulnerable groups etc.) and must take into account the amount and timing of payment as well as additional requirements such as incentives for committee members and pump attendants.
- The provision of 'seed funds' to small local enterprises to encourage the supply of spare parts does not appear to be an effective intervention because of the low turnover of spare parts but in the emergency context it may be useful to provide 'seed' spare parts to the Ministry of Health or Water Department so that these items are accessible for at least a few years after the project end.
- Ensure that monitoring systems that consider sustainability are in place to identify problems at the earliest opportunity e.g. functioning of committee/user group, government support, knowledge and practice of hand pump attendants (if trained), groundwater levels, water quality etc. Indicators that define clearly such concepts as 'functioning of group' will need to be chosen. A '**spidergram matrix**' can help to tease out the important elements of such concepts. All stakeholders have a role to play in monitoring but the involvement of the water department or equivalent is particularly important. Community members/groups should also be encouraged to monitor these issues as a means of raising awareness about sustainability. Mock breakdowns could be staged to assess if people know what to do.

Bujumbura Case Study¹⁴

Oxfam GB implemented an emergency public health project for displaced people in Bujumbura Rural Province in north western Burundi. The project sought a reduction in diarrhoeal and vector-borne diseases through two integrated components: technical improvement such as water point rehabilitation, production of portable latrines slabs (“san-plats”), and residual spraying; and health promotion activities organised and carried out through volunteer committees.

Establishing Committees

The process of setting up committees followed several steps:

- meetings with commune administrators to present the project;
- meetings with the administrator's representatives and community elders in each site to present the idea of the committees;
- meetings with prospective committee members to discuss the kind of work they would be doing, the voluntary nature of the work, and the issues we would be addressing.

In recruiting committee members, we aimed to have each site represented by at least one man and one woman; we also hoped to find people who were dynamic, respected by the community, and interested in public health issues. A capacity inventory was carried out to learn about skills and preferences among committee members regarding different aspects of health promotion.

Additionally one man and one woman for every 100 households was identified and trained to be community animator. These were energetic men and women who could organise action to address public health issues and who would support the committee volunteers in implementing health promotion and community mobilisation activities.

Originally, the animators were conceived of as a group separate from the more management-orientated committee members. As time went by however, the distinction between committee members and animators became irrelevant: everyone participated in decision making as well as promotion activities.

The idea behind Oxfam’s work with committee members and animators was that:

- working with natural helpers, i.e., community members whom others consult for advice and who are already involved in helping their community develop as apart of their everyday life, would be more effective than working on our own;
- focusing on action that the community could take to improve public health would be more effective than increasing knowledge about public health risks.

This led to a standard way of operating: first to discuss and analyse a public health problem, such as diarrhoea, where all participants, including the Oxfam Public Health promotion staff, could share knowledge and correct misconceptions. Then to plan what action(s) could address the problem, such as digging latrine pits and installing sanplats, as well as planning the promotion of these activities that would have to take place in the community. Finally to review the activities carried out by the committee and the

¹⁴ Taken from Oxfam PHP Training Manual 2000

community, resolving problems, and celebrating successes. Thus learning took place through doing, and discussions always had a practical objective in mind.

This approach seemed to work well: the committee members and the animators felt respected and included in the process. One valuable aspect of the approach was respecting the voluntary nature of their time and work: I felt that we did not overburden them with demands, and they responded by working hard in the small amount of time they did have. The group dynamics within the committees was frequently monitored and adjustments when needed. The Oxfam office staff found ways to recognise their accomplishments by giving committee members gifts such as t-shirts (with the phrase "Working Together for Hygiene" on them), cooking pots, hoes, and seeds. The voluntary nature of the committees proved to be sustainable over the ten months of the project. However, the gifts given by Oxfam were crucial to maintaining their commitment, so it could be seen that we were paying the committees in some way.

The Ministry of Health (MOH) has a theoretical structure of health promoters and community health workers in each commune, and the committees should have been linked to that structure. However, we discovered that the structure did not exist to any great extent, and it was more important to establish the committees and begin addressing urgent public health issues in the camps.

Activities:

Diarrhoeal diseases were the most prevalent health problem in the camps, and there were a fairly wide range of conditions that could foster their transmission; thus, action to prevent and treat diarrhoea made up most of our promotion efforts. Over the course of the project the committee members and animators:

- Developed and presented a marionette show, sketches, songs, and dances related to general hygiene issues. Everyone involved quickly embraced the use of creative promotion techniques, which made the whole project much more interesting and fun. However, we did not do a very good job of documenting the use of these techniques.
- Created lists of all the households in the camp to organise distributions. Doing this and carrying out the distributions proved to be a relatively easy and empowering task that helped establish trust and credibility. However there was a danger that it would create a parallel bureaucracy in the committees.
- Introduced and distributed 2,000 sanplats, and promoted their correct installation and use. In most sites, the sanplats were properly installed and maintained, and all were carried back and reinstalled when people went home. The weakest point was the use of lids, which appeared spotty at best.
- Organised varied health promotion activities at primary schools. Used a set of drawings showing different hygiene conditions and asked students to sort them into safe or dangerous categories and then discussed the results. Songs and sketches were created and performed by the students.
- Female committee members volunteered for an oral rehydration project, where they received training at their closest health centre and distributed ORS donated by NGOs on an emergency basis. The ORS activity was an exciting initiative as it created direct links between the committees and the existing health care structure, but it will require a lot of attention to make sure that the health centres continue giving the donated ORS to the women.

- Distributed Hygiene-related non-food items including water containers, soap and chamber pots. Overall, the water containers were appropriate, but the extent to which they were properly used is not clear. The soap was a very welcome item, although we had to specifically ask people to reserve one piece per household for hand washing as most was used for washing clothes. The chamber pots were not appropriate at all: most seemed to have been sold or were not being used by the end of the project.

Example Roles and Responsibilities of Water Committee Members

Both women and men should be included on the committee - preferably equal numbers of both and the members should be chosen with the agreement of community members.

CHAIRMAN

Responsible for overall functioning of Committee/User association

Key Tasks

Organise regular meetings between committee members to ensure problems are addressed and finances accounted for

To organise meetings when necessary with committee members and other stakeholders e.g. community meeting to address specific problems to do with water, sanitation and hygiene

To act as a catalyst for change in community with respect to hygiene issues, setting a good example of hygiene practice

To organise manpower for specific tasks associated with maintenance of the water source, where necessary (e.g. cleaning surroundings, repairing fence etc.)

To support other committee members in order to ensure effective running of the committee

To act as additional signatory for the withdrawal of money from account

TREASURER

Responsible for managing and accounting for finances

Key Tasks

To organise and supervise the collection of funds

To manage and account for collected funds by keeping accurate records and depositing money in bank

To act as main signatory for the withdrawal of money from bank account

To purchase spare parts with collected funds

To substitute for the Chairman in case of absence

To act as a catalyst for change in community with respect to hygiene issues, setting a good example of hygiene practice

SECRETARY

Responsible for keeping records of action points from meetings

Key Tasks

To keep a written or mental note of issues identified in committee meetings and to ensure that action points are clearly defined after each meeting

To support the Treasurer in the collection and managing of funds

To regularly visit the water point to identify problems and report back to committee members

To provide support where necessary to the Water Point Attendant

To act as an additional signature for the withdrawal of funds from the bank account

To act as a catalyst for change in community with respect to hygiene issues, setting a good example of hygiene practice

WATER POINT ATTENDANT

Responsible for day to day running of the water point system

Key Tasks

To perform regular maintenance tasks on water point where necessary

To repair breakdowns where possible or seek help from government technicians

To assist other committee members in the purchase of spare parts

To report major breakdowns as early as possible to the government authorities

To act as a catalyst for change in community with respect to hygiene issues, setting a good example of hygiene practice

Module 3: Agency and Context specific available handouts

Role of the Hygiene Promoter

Introduction to Baseline Survey

- Designing baseline study

Questionnaire Survey

- Example Questionnaire
- Guidance Notes for carrying out surveys

Oral Rehydration Therapy

- 'F' Diagram (see Module 1: Key actions to prevent diarrhoea)
- Instructions for management of diarrhoea (see Module 1: Key actions to prevent diarrhoea)

Cholera Control Issues

- Cholera Toolkit
- Cholera Fact sheet (from session on water and sanitation diseases)

Malaria Control Issues

- Malaria Quiz
- Focus group discussion framework
- Malaria Fact Sheet (see Module 2 Water and Sanitation Related Diseases)
- RBM Information Sheet (see www.rbm.who.int/multimedia/rbminfosheets.html)

Designing the baseline study

Once the immediate needs and interventions have been identified, it will be necessary to gather more in depth information to inform the future design of the programme and to provide a baseline for monitoring and evaluation. The 'baseline' 15 survey provides a detailed assessment of sanitation and hygiene practices. It should draw on both qualitative data (obtained from focus group discussions, three pile sorting exercises etc.) and quantitative data obtained from a random sample of the population, usually using a questionnaire. The data and analysis obtained from the rapid assessment should feed into the baseline survey.

Before embarking on the baseline study consider the following issues:

- Identify stakeholders
- What is the main reason for doing the study?
- What questions do you want to be able to answer later?
- Hence, what questions do you want to answer now?
- What evidence would be needed to answer these questions?
- Who/where would you get this evidence from?
- What methods would you use?
- Who would do the work?
- What training is required
- What resources are required?
- What is the time-scale?

Qualitative Baseline Data

Example Qualitative Baseline Data Survey Plan

| Settlement | Population | Specific Characteristics | Data Collectors ¹⁶ | Data Collection Methods |
|------------|------------|--------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------|
| 1 | 1800 | Muslim Village: subsistence farming | Hygiene Promoters x 2 (Volunteers x 4) | Exploratory Walk FGD (women) x 1 FGD (men) x 1 Pocket Chart Voting (mixed group of volunteers) |
| 2 | 4350 | Periurban community: mixed Muslim, Hindu and Christian | Hygiene Promoters x 2 (Volunteers x 10) | Interviews with key informants FGD (Christian women x 1) FGD (Muslim women x 1) FGD (Hindu Men x 1) |

¹⁵ In an emergency situation some interventions need to start immediately and therefore the survey will not always reflect the original baseline conditions. A baseline survey can also be taken to mean a much broader assessment of the context but these guidance notes emphasise the use of the baseline for monitoring and evaluation of the MSM intervention.

¹⁶ The number of hygiene promoters and volunteers covering each area is dependent on the situation. For the data collection exercise some of the hygiene promoters may need to cover more than one area.

| | | | | |
|-------|-------|-----------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | Exploratory Walk |
| 3 | 3400 | Predominantly Muslim fishing community | Hygiene Promoters x 2 (Volunteers x 8) | Interviews with key informants Exploratory Walk FGD (women) x 2 FGD (men) x 1 Mapping Muslim men |
| 4 | 8350 | Urban area: mixed community, Muslim and Hindu - some Christian, different wealth groups | Hygiene Promoters x 4 (Volunteers x 20) | Interviews with key informants Exploratory Walk FGD (Hindu women) x 2 FGD (Muslim women x 1) FGD (Hindu men x 1) Mapping Hindu women (|
| 5 | 2400 | Predominantly Hindu village - different caste groups | Hygiene Promoters x 2 (Volunteers x 6) | FGD (Hindu women) x 1 FGD (Muslim women x 1) FGD (Hindu men x 1) |
| 6 | 6300 | Small town mixed Hindu, Muslim and Christian | Hygiene Promoters x 4 (Volunteers x 12) | Interviews with key informants Exploratory Walk FGD (Hindu women) x 1 FGD (Muslim women x 2) FGD (Hindu men) x 1 Mapping (Hindu women) |
| 7 | 15470 | Camp - mixed population | Hygiene Promoters x 6 (Volunteers x 40) | Interviews with key informants Exploratory Walk FGD (Hindu women) x 2 FGD (Muslim women x 1) FGD (Muslim men x1) FGD (Christian women x 1) 3 pile sorting (Muslim women) 3 pile sorting (children 5- 8 years) |
| Total | 42070 | | | |

Quantitative Baseline Data

This is usually gathered using a questionnaire. A random sample of the population is selected to represent the whole population.

Example of Activity Chart/Gantt Chart for conducting Questionnaire survey¹⁷

| Activity | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 | Day 13 |
|--------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Prepare questionnaire | | | | | | | | | | | | | |
| Translate (if necessary) | | | | | | | | | | | | | |
| Prepare sampling frame | | | | | | | | | | | | | |
| Train survey team | | | | | | | | | | | | | |
| Pre-test questionnaire | | | | | | | | | | | | | |
| Amend questionnaire | | | | | | | | | | | | | |
| Data collection | | | | | | | | | | | | | |
| Data collation | | | | | | | | | | | | | |
| Data analysis | | | | | | | | | | | | | |
| Report writing | | | | | | | | | | | | | |

Use of findings

To inform indicators/ set targets within the logframe (i.e. this is an intrinsic part of the monitoring system)

Once you have completed the analysis, it is good practice to try to discuss the results with the community. Feedback to the community should help to identify subsequent community and agency actions

¹⁷ The preparation and execution of the questionnaire survey will need to be carried out simultaneously with other hygiene promotion activities and should not require the cessation of these other activities for the full thirteen days.

Example Water, Sanitation and Hygiene Survey Questionnaire

| | |
|---------------------|--|
| Name of Interviewer | |
| Date of Interview | |
| Location | |
| Questionnaire No. | |

Ensure that you define the person that you want to interview e.g. Women with Children 5 years old and under.

We are assessing the health and environmental status of your community. We are therefore asking you to participate by answering a few basic questions. The entire exercise will only take a short time. Your answers will be confidential. You have a right to accept to participate or not. Would you like to help us in answering these questions?

| DEMOGRAPHICS | | | | |
|--------------|-------------------------------------------------------|--------------|---------------------|-------------|
| 1 | Name of village (from which the household originates) | | | |
| 2 | Total number in household | Adult Male | < 5 Male | 5-15 Male |
| | | Adult Female | <5 Female | 5-15 Female |
| 3 | Female headed or male headed | Female | Male | |
| 4 | How many people in your family can read and write? | Female | Male | |

| WATER | | | |
|-------|----------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------|
| 5 | Where do you get your drinking water from? ¹⁸ | TUBEWELL/BOREHOLE | |
| | | PROTECTED DUG WELL | |
| | | PUBLIC TAP/STANDPIPE | |
| | | UNPROTECTED DUG WELL | |
| | | PROTECTED SPRING | |
| | | UNPROTECTED SPRING. | |
| | | RAIN WATER COLLECTION | |
| | | SURFACE WATER (RIVER /POND/LAKE/DAM/ STREAM/CANAL/IRRIGATION CHANNELS | |
| | | TANKER | |
| | | OTHER (SPECIFY) | |
| 6 | How long did you have to wait to collect water this morning? | < 15 MINUTES | |
| | | 15 MINUTES TO 30 MINUTES | |
| | | > 30 MINUTES | |
| 7 | How many containers for water collection do you have? | 2 or less | |
| | | 3 | |
| | | 4 | |
| | | >4 (please specify) | |
| 8 | How many containers do you use every day for your whole family | | Calculate total number of litres |
| 9 | Do you have a separate container for storing drinking water? | YES | NARROW NECKED/COVERED |
| | | YES | UNCOVERED |
| | | YES | CLEAN |

¹⁸ You may want to ask this question twice to record answers for the wet and dry seasons if people have been in the location for some time.

| | | | |
|----|-----------------------------------------------------------------------------|------------------------|--|
| | | NO | |
| 10 | Can you show me how you take water from that container if you want a drink? | USES A CLEAN UTENSIL | |
| | | USES HAND | |
| | | USES DIRTY UTENSIL | |
| | | CONTAINER HAS A TAP | |
| | | OTHER (PLEASE SPECIFY) | |
| 11 | Do you treat the water you use for drinking? | BOILING | |
| | | CLOTH FILTER | |
| | | CHLORINE | |
| | | OTHER (PLEASE SPECIFY) | |

HYGIENE AND SANITATION

| | | | |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--|
| 12 | When do you think are the important times to wash your hands? (DO NOT READ THE ANSWERS, ASK TO BE SPECIFIC, ENCOURAGE FURTHER ANSWERS ONCE ONLY AND CHECK ALL THAT APPLY) | AFTER GOING TO THE TOILET | |
| | | BEFORE EATING | |
| | | AFTER HANDLING CHILDREN'S EXCRETA | |
| | | BEFORE PREPARING FOOD | |
| | | AFTER TENDING TO THE ANIMALS | |
| | | OTHER (PLEASE SPECIFY) | |
| 13 | With what do you wash your hands? (DO NOT READ THE ANSWERS, ASK TO BE SPECIFIC, ENCOURAGE FURTHER ANSWERS ONCE ONLY AND CHECK ALL THAT APPLY) | ONLY WATER | |
| | | SOAP | |
| | | ASH | |
| | | OTHER (PLEASE SPECIFY) | |
| 14 | Where do women in your family defaecate? | LATRINE | |
| | | BUSH | |
| | | RIVER | |
| | | OTHER (PLEASE SPECIFY) | |
| 15 | Where do men in your family defaecate? | LATRINE | |
| | | BUSH | |
| | | RIVER | |
| | | OTHER (PLEASE SPECIFY) | |
| 16 | The last time [<i>name of child under five</i>] passed stools, where did he/she defecate? | USED LATRINE | |
| | | USED POTTY | |
| | | USED WASHABLE DIAPERS | |
| | | WENT IN HOUSE/YARD | |
| | | WENT OUTSIDE THE PREMISES | |
| | | WENT IN HIS/HER CLOTHS | |
| | | OTHER (PLEASE SPECIFY) | |
| 17 | The last time [<i>name of child under five</i>] passed stools, where were the faeces disposed of? | DROPPED INTO LATRINE | |
| | | RINSED/WASHED AWAY | |
| | | WATER DISCARDED INTO TOILET FACILITY | |
| | | WATER DISCARDED OUTSIDE | |
| | | SOME WHERE IN YARD | |
| | | DID NOTHING/LEFT IT THERE | |
| | | BURIED | |
| | | OTHER (PLEASE SPECIFY) | |

MANAGEMENT OF DIARRHOEA

| | | | |
|----|------------------------------------------------------------------------------------------------------|------------------------|--|
| 18 | Has anyone in your household had diarrhoea (more than 3 loose stools a day) over the past two weeks? | YES | |
| | | NO | |
| 19 | If yes, who was it? | MAN | |
| | | WOMAN | |
| | | CHILD UNDER FIVE YEARS | |
| 20 | How can you prevent diarrhoea? | | |

| | | | |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | List ways | | |
| 21 | The last time (name child) had diarrhoea, what did you do to treat him/her? (ASK THE QUESTION AND PAUSE THEN PROBE, YOU CAN THEN ASK EACH QUESTION IN TURN) | WENT TO THE CLINIC GAVE ORS MADE SALT SUGAR SOLUTION AT HOME GAVE EXTRA LIQUIDS GAVE SOLIDS GAVE BREASTMILK GAVE TABLETS (PLEASE SPECIFY) OTHER (PLEASE SPECIFY) | |
| 22 | Can you tell me how to make sugar and salt solution? | CORRECT PROPORTIONS (insert country specific details) INCORRECT PROPORTIONS | |

OBSERVATIONS ARE OFTEN BEST DONE AT THE END OF THE INTERVIEW. PLACE THE RELEVANT QUESTIONS AND OBSERVATIONS AT THE END OF THE QUESTIONNAIRE IF NEEDED.

| OBSERVATIONS | | | |
|---------------------|------------------------------------------------------------|------|--|
| 1 | Are there flies in the house | NO | |
| | | MANY | |
| | | FEW | |
| 2 | Is there rubbish lying around either in or near the house? | YES | |
| | | NO | |
| 3 | Is left over food covered? | YES | |
| | | NO | |
| 4 | Is there a household drying rack for utensils? | YES | |
| | | NO | |
| 5 | Are there faeces seen lying around the outside of house? | YES | |
| | | NO | |
| 6 | Ask to wash your hands - were you offered soap | YES | |
| | | NO | |
| 7 | Are animals kept close to the house? (within | YES | |
| | | NO | |

| MALARIA | | | |
|----------------|---------------------------------------------------------------------------------------------|------------------------------------|--|
| 1 | Have you or any of your children under five suffered from malaria in the past three months? | YES | |
| | | NO (GO TO QUESTION 3) | |
| 2 | If yes, did they receive treatment? | CLINIC/HOSPITAL | |
| | | PHARMACY | |
| | | LOCAL HERBALIST/TRADITIONAL HEALER | |
| | | NO TREATMENT (GO TO QUESTION 3) | |
| | | OTHER (PLEASE SPECIFY) | |
| 3 | If they received treatment was it | WITHIN 2 DAYS | |
| | | AFTER 2 DAYS | |
| 4 | How do you prevent malaria? | SLEEPING UNDER A NET | |
| | | COILS | |
| | | LOTIONS/BODY SPRAYS | |
| | | OTHER (PLEASE SPECIFY) | |
| 5 | Did your child under five (name) sleep under a treated bed net last night? | YES | |
| | | NO | |

Remember to thank the person being interviewed for her time and tell her that you hope to provide feedback on the results as soon as possible. These results will be anonymous and no one will know what specific answers she gave.

Guidance Notes for Questionnaire Survey

Interview Etiquette

- Dress appropriately.
- Present official document/certificate from organization or project if necessary.
- Be punctual (if appointments have been made).
- Do not enter the house unless you are invited.
- If you remain outside, do not ask for a chair; sit on the porch, steps, etc.
- Tell people how long the questionnaire will take.
- Do not accept lunch (unless it would be rude to refuse).
- Do not give gifts to interviewees.
- Thank interviewees at the end.

Choosing Sample and individual households

- Do not choose samples exclusively from particular groups, such as children coming to clinics.
- Do not ask mothers to bring their children to a central point in the community, because some of them will not come; you will not be able to find out how many failed to appear and how different they may be from those who came.
- Do not use samples chosen at will by the interviewer, field supervisor or field director.
- Do not restrict your sample to families living in easily accessible households, such as those close to a main road or near a village center; families living in less accessible areas may be poorer and less healthy.
- Do not omit households where no one is at home the first time you call. Find out if the household is inhabited, and revisit at a later time.

Source: UNICEF MICS Survey - choosing a sample

Asking Questions

- Introduce yourself to the householder and explain what you want to do
- Make sure that you interview the 'right' person in the household i.e. the person who has been designated as the key informant for this particular survey e.g. mother with children under five
- Do not confuse the respondent by asking two questions at once, such as, 'How many children under the age of five are there and do any of them use the latrine?' Instead, ask two separate questions: 'Can you give me the names and ages of each child in the household?' Then, for each child ask 'where does (Name) usually defaecate?'

Cholera control - Toolkit for Red Cross Volunteers¹⁹

Key Messages

- Cholera is a dangerous diarrhoeal disease that causes severe dehydration (body dry) if not treated immediately.
- Cholera like diarrhoea is caused by a germ that is found in the stools (pupu) of an infected person.
- Cholera like diarrhoea is spread through drinking water and food contaminated by stools.
- Cholera and diarrhoea can also be transmitted by dirty hands and flies.
- Dehydration, if not treated immediately, can rapidly lead to death.
- Persons with diarrhoea should drink more liquids and be referred to a health facility.
- Breastfeeding must continue in case of diarrhoea in a baby.
- Cholera and diarrhoea can be prevented. Wash hands, boil water, eat hot food.

What you should know about cholera and diarrhoea and its control in the community

- Once cholera or diarrhoea is introduced into a community, everyone must practice good hygiene to prevent its spread.
- If cholera or diarrhoea is in the community, go house-to-house in your assigned area to find cases of diarrhoea. Immediately refer them to a health facility or health worker.
- Tell suspect cases of diarrhoea or cholera to drink more liquids, take ORS (oral rehydration solution) if available and seek medical attention immediately.
- ORS is a small sachet of powder which is available at health facilities and pharmacies. It is mixed in a litre of clean water. Adults should drink at least 1 glass (100 ml) of this solution after each stool, children under five ½ a glass and babies should be given continual sips from a spoon (breast feeding must continue as well as the ORS).

What you need to do in your community

- Work with the local health workers and community leaders who are trying to control the cholera outbreak.
- Know where the health facility is located in your area and where oral Rehydration solution (ORS) sachets are available.
- You may be needed for COMMUNITY ACTION such as clean up campaigns to reduce flies, for disinfection of wells or for public information in marketplaces, schools, churches etc. on the dangers of cholera and how to prevent it. Your health workers will advise you on these actions.
- You may be needed for HOUSE TO HOUSE ACTION to search for cases and refer them to a health facility and to give the family information on prevention and treatment of cholera.
- Revisit all these families as often as necessary to ensure that new cases are not occurring and that families are practicing good prevention (see below for prevention steps).

Know the signs of cholera, these include:

- Continuous watery diarrhoea

¹⁹ Taken from IFRC ARCHI toolkits

- Vomiting
- Rapid dehydration with:
- Sunken eyes
- Dry lips, mouth and tongue
- Thirstiness
- General weakness and sometimes, cramps
- Sunken fontanelle (Open Mole) in babies

Volunteer's checklist

- Have you consulted and planned with the local health workers and community leaders in your area?
- Do you clearly know what you will be doing? Community action or house to house promotion?
- Do you know what the community thinks (attitudes and knowledge) about diarrhoea and cholera and how you will explain to them its prevention and treatment?
- If community action is needed, are you working as a team with the health authorities? Do you have the necessary supplies and equipment (megaphone, bleach for wells, pamphlets)?
- If you are doing house to house visits, do you know your assigned area and the number of houses you will need to visit? Do you know how often you must visit all these households?
- Do you know where to refer people with diarrhoea? Do you know where to get ORS sachets?

Measuring your success

- All suspect cases of diarrhoea in your assigned households are immediately referred.
- All cases of diarrhoea are taking more liquids and mothers continue breastfeeding and go immediately to a health facility.
- Because of good information and early medical treatment, there will be no cholera deaths in the households under your responsibility.

Keeping records and reporting on your volunteer work

The number of days you volunteered for cholera control _____

The number of households in your assigned area _____

The number of people in these households _____

Indicate the number of people visited and the number of diarrhoea cases referred during each round of your house to house visits

First round of visits: _____ people visited, _____ persons referred

Second round of visits: _____ people visited, _____ persons referred

Third round of visits: _____ people visited, _____ persons referred

Other key messages for families you visit:

- Cholera is an intestinal infection and the germ is found in stools and diarrhoea.
- Cholera can be prevented by:

- Drinking safe water
- water that has been boiled at least 1 minute
- keep water in a clean container with a cover
- Eating hot and cooked food
- Avoid, in times of an epidemic, eating seafood, fish and raw food (fruits and vegetables can be contaminated). Don't eat fruit or vegetables that you have not peeled or washed yourself.
- Wash your hands with soap or ashes after using the latrine and before eating.
- Food preparers should wash their hands before touching or preparing food
- Protect food from flies, keep food covered before serving

MALARIA QUIZ QUESTIONS²⁰

1. Malaria is transmitted by a male anopheles mosquito True False
2. How many different types of malaria are there?
3. What is the organism that causes malaria?
4. Vertical malaria control programmes are a new approach to malaria control
True False
5. In 1998 WHO introduced a new strategy to address the problem of malaria - what is this new strategy called?
6. Pregnant women should take malaria prophylaxis during the whole of their pregnancy
True False
7. Cerebral malaria only affects young children and pregnant women
True False
8. It is better to take at least half the treatment dose for malaria than none at all
True False
9. Residual spraying prevents malaria by killing all mosquitoes
True False
10. Pregnant women and children are more at risk from malaria in _____ than other groups
True False
11. What are the main malaria vectors in _____?
12. What is the recommended first line treatment for malaria in _____ and in what dosage?
13. The most effective method of malaria control is the use of Insecticide treated bed nets?
True False
14. There are over 350 species of anopheles mosquitoes
True False
15. Malaria is responsible for 1.5 - 2.7 million deaths world wide each year
True False

²⁰ Taken from Oxfam Malaria Control Guidelines

16. In sub-saharan Africa there are approximately 270 - 480 million cases of malaria each year
True False
17. What are the main species of malaria in _____?
18. Malaria is easy to diagnose and can be done in all clinics and health centres
True False
19. A malaria vaccine will soon be available
True False
20. Most adults from Sub Saharan Africa have developed life long immunity to malaria
True False
21. Why can treatment for malaria fail? (give as many reasons as possible)
22. _____ is an area of stable malaria transmission
True False
23. What methods can you use to protect yourself from malaria? (give as many methods as possible)
24. Severe, life threatening malaria is usually caused by one particular type of malaria
True False
25. Insecticide treated bed nets need to be re-impregnated every three months
True False
26. How do ITN's/LLIN's protect people from malaria?
27. Which groups should be targeted for the distribution of insecticide treated bed nets?
28. Why might bed nets fail to protect people from malaria? (give as many reasons as possible)

Malaria Focus Group Discussion Framework

- What are the most common diseases at present and which are the most serious?
- Who gets these diseases? Men, Women, Young children or older children?
- What do you do when someone has Malaria/Fever/Fits? (find out if people classify these separately)
- Who do you go to?
- When do you go?
- What do they do?
- What do you do if this treatment doesn't work?
- Do you give any home treatments? What are they - who do you get them from?
- Is this what happens to all members of the family?
- Is this what everybody does?
- Who gets malaria?
- What causes malaria? - (probe for other answers)
- How can it be prevented?
- At what time do mosquitoes bite most?
- Do people use bed nets here?
- How much did they cost - how much do they cost now / are they available?
- Do they dip them in anything?
- Who uses them (how many in a family)- why do they use them - who do they use them for? Are there people or family members who don't use them - if not do they take any other precaution?
- How long do they last - what happens when they get torn?
- How often do you wash them?
- Where and how do people sleep?
- What time do young children go to sleep?
- What time do adults go to sleep and get up?