

Hygiene promotion

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1 Introduction

1.1 What is hygiene promotion?

Hygiene promotion includes all the activities aimed at increasing people's health status through the improvement of the hygienic practices in their day-to-day life.

1.2 Why is hygiene promotion important?

Health is one of the main concerns of humanitarian programmes and is a full component of the fight against vulnerability and malnutrition. Emergencies can cause an increase of water- and sanitation-related diseases and in some cases can cause epidemic outbreaks, putting many people's lives in danger.

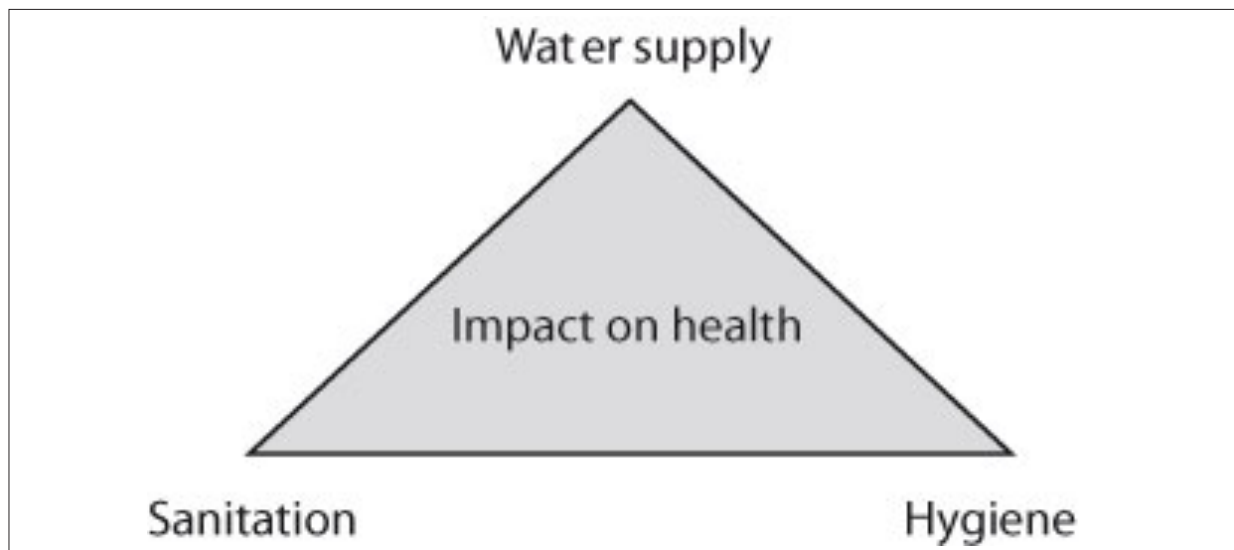


Figure 15.1: The three main components of public health engineering.

Improvement of health can be achieved by focusing on three fundamental areas: the health-care system, water and sanitation infrastructure and the population's health-related behaviour. Figure 15.1 shows the three main components of public health engineering.

Water- and sanitation-related diseases are the main health problem within developing countries and therefore the main cause of mortality. Their development and transmission depend directly on access to facilities, vector-control measures and water-handling and hygiene habits. Clean water and sanitary facilities are essential for improving the sanitary environment, but poor results will be achieved in terms of public health if hygiene practices are not appropriate: the clean water provided by a protected source can be contaminated if it is not correctly handled; the impact of a latrine will be reduced if people don't use it properly and don't wash their hands after using it; and the stagnant water accumulated around a badly-maintained water point can be a serious sanitary risk for its users and nearby inhabitants.

Hygiene promotion has a proven impact on the reduction of diarrhoeal diseases (Figure 15.2). Hand-washing is reported to be almost twice as effective as improvements in water quality alone: a safe water point will have little impact on health if water is not correctly handled. Figure 15.2 shows the influence of different programmes on the reduction of diarrhoeal diseases, but special attention has to be paid in interpreting these figures, considering for example that the availability of safe water is a component of hand-washing.

The objective of many programmes is to reduce the risk of spreading water-and sanitation-related diseases, through an integrated approach where water, sanitation and hygiene promotion are closely connected.

Hygiene promotion focuses on reducing the main risks related to health and the use of water-supply and sanitation facilities through an improvement in people's knowledge and behaviour. The more frequent topics developed in Hygiene Promotion programmes are:

- transmission of diseases, understanding of risks and solutions;
- proper use of facilities;
- proper water use: collection, transport, storage and consumption;
- promotion of appropriate sanitation;
- basic personal hygiene;
- environmental hygiene;
- food hygiene;
- child hygiene.

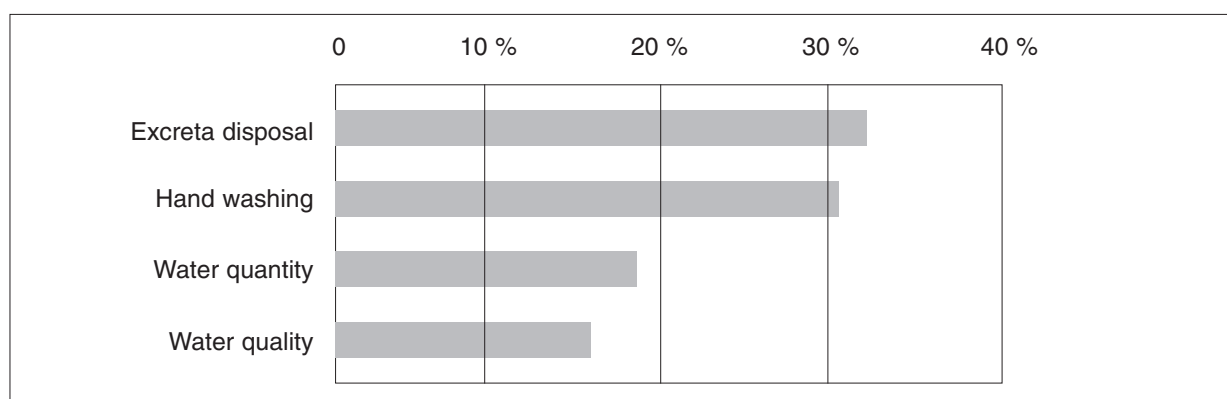


Figure 15.2 : Estimated impact of different activities in the reduction of diarrhoeal diseases (Esrey et al. 1991).

Hygiene depends on people's habits, and these habits depend mainly on 5 factors:

- *Beliefs and taboos*: some beliefs can be connected to health risks. Water has a holistic value for many communities and it is very important to understand and to respect it. Programmes must be adapted to the specificity and culture of communities.

- *Knowledge*: many communities are not aware of the relation between the environment and diseases, nor are they aware of paths of transmission and the measures to avoid them. Understandable information is needed.

- *Behaviour and existing habits*: some existing habits have a negative impact on health and they are difficult to change, especially if they are connected to beliefs. Sometimes inappropriate habits are due to lack of knowledge, but often they are a question of will. Hand-washing is an example: people often know that it is necessary to do it before eating, but may not do it.

- *Perception of risk*: during a disease outbreak people are more sensitive to the importance of hygiene, and protective habits are easier to introduce. In normal situations, even if lack of hygiene has a big impact on health, people are used to this situation and behaviour is more difficult to modify.

Table 15.I: Hygiene promotion in the short term and longer term.

	Acute risk	Chronic risk
Beliefs	Short time to understand, easy to make mistakes	Indispensable to take time to understand
Knowledge	Importance of spreading messages Habits need changing even if the communities do not have the knowledge: focus on marketing	Improvement of knowledge is indispensable for a change in behaviour: focus on education
Existing habits	Changes will not be long-term, but it is important to aim to change habits at least for this period of time	It is important to analyse existing habits before changing behaviour
Perception of the risk	Easier to react if there is a major risk due to a sudden change – people will be more proactive	It is more difficult for the communities to perceive risk as they are used to the situation
Facilities	Emergency response: quick and effective solution Construction and rehabilitation is normally a priority in emergency programmes	Facilities must be appropriate to being managed and maintained by the communities, who must participate from the beginning of the project

– *Availability of facilities*: clean water and sanitation facilities are necessary in order to facilitate and support basic hygiene habits, and allow their adoption.

The shape of a hygiene-promotion programme will depend basically on the identification of the main health risks (magnitude and duration) and on the availability of time to develop the intervention. During major crises when an emergency response is needed, hygiene promotion must be a priority, but seeking permanent changes in people's behaviour is not realistic in this kind of intervention. Very often, risk continues after the emergency period, and the hygiene promotion programme must be adapted through a long-term approach. See Table 15.I.

1.3 The hygiene-promotion project cycle

This chapter explains the main steps, methodologies and tools used for hygiene promotion, following the project cycle, from the identification of needs to the evaluation of a programme. Table 15.II shows the different steps in the project cycle of hygiene promotion.

Table 15.II: The project cycle of hygiene promotion.

Cycle	Phases	Outputs
	Preliminary appraisal	Estimation of water & hygiene-related disease incidence Analysis of the social and physical context
	Detailed assessment	Identification of risk practices
	Planning	Selection of target risk practices to modify Selection of target audience Definition of the message Selection of communication channels
	Transmission of the message (Implementation)	The message must be 1) noticed 2) understood 3) accepted 4) acted on (risk practices are changed)
	Monitoring	The question <i>How is it working?</i> is answered
	Evaluation	The question <i>Has it worked?</i> is answered

2 Needs assessment

Every project starts with an assessment. Assessments are where qualitative and quantitative information is collected and analysed. On the basis of this analysis, the programme objectives are set and activities are planned.

Assessing people's behaviour is complicated. A specific practice that involves a sanitary risk can have its origin in a fact that we cannot explain at first glance. Before proposing a new practice to replace a risky one, we have to be sure that it doesn't represent a problem for the people concerned in terms of culture, economy, tradition, taboos etc. That is why the assessment requires enough time and means.

The assessment section is divided into three stages: Preliminary Appraisal, Detailed Assessment (specific information) and Analysis of Results.

2.1 Preliminary Appraisal

Before assessing specific issues about hygiene practices, it is important to know who are the target population. The preliminary appraisal is the process of detecting the problem and collecting

contextual information that will help carry out a deeper assessment. This part of the assessment has to be adapted to the context and nature of the population concerned.

2.1.1 DETECTING A PROBLEM

The assessment should respond to a previously-detected health problem. As every hygiene promotion activity aims to reduce the incidence of water- and hygiene-related diseases through the reduction of certain risk practices, the first information to look for is the incidence of this kind of disease, to decide whether an intervention is necessary or not. Once this has been established, it should be estimated to what extent the health problem is caused by human behaviour (see Chapter 2).

This preliminary medical and epidemiological information can be found in health institutions (hospitals, health centres, health ministry etc.) or elsewhere (other agencies working on health, local authorities, traditional healers etc.).

2.1.2 DEFINING THE TARGET AREA

The next step is to define the physical area and the population where the problem exists, and where hygiene behaviours should be assessed.

The information that is needed for designing a hygiene education and promotion programme is mainly related to social issues. Before doing in-depth research, some general information concerning the people living in the area that is going to be assessed is needed: languages spoken, ethnic groups, religion, politics, taboos, previous contacts, coping mechanisms, markets, gender information, traditional authorities etc. It is useful to have information that is gender-specific (i.e. what is related to men, what to women and what to both).

This information provides a baseline that will be built on afterwards with in-depth assessment and programme monitoring.

2.1.3 APPRAISAL TECHNIQUES

Information can be gathered for the appraisal as follows:

- Prior to presence in the field: information coming from the internet, media, other organisations working in the same area etc.
- In the field: using some of the techniques used in the in-depth assessment, such as key informant interviews and health-walks (see Section 2.3).

2.1.4 PLANNING THE IN-DEPTH ASSESSMENT

The last step to be carried out in the preliminary appraisal is the planning of the in-depth assessment to be done prior to implementation. This planning includes the timing, the budget and the recruitment of the assessment team. The budget and time required for doing a good assessment is higher, and the time needed to assess cultural and social issues is much longer, for this kind of programme than for a construction programme.

2.2 In-depth assessment

The in-depth assessment is the part of the assessment that investigates hygiene practices, using a variety of techniques, such as focus group discussions and other participatory tools that can be used over long periods, or directive surveys such as KPA surveys that are more one-off studies. The in-depth assessment gives an idea of the key risk hygiene practices in a target area. Additionally, it could highlight the need for better infrastructure or suggest modifications to an existing programme; in any case, this study should identify interim solutions that allow better hygiene in the absence of improved infrastructure.

2.2.1 WHAT TO LOOK FOR

The main questions that should be addressed during the in-depth assessment are:

- What are the main diseases affecting the population? What is the incidence of diarrhoeal diseases?
- What are the practices that involve a high risk?
- Among these practices, which are the most common and easiest to replace by new ones (safe practices)?
- What are the perceived advantages of those safe practices to the community?
- Who carries out the risk practices and who influences them?
- What communication channels would be trusted for hygiene-promotion messages?

2.2.1.1 Identifying risk practices

To decide what kind of programme is suitable for solving the problem, the disease-transmission routes that represent the main sanitary risks should be identified. For example, if the problem is that there are no sanitation facilities and there are stools in the surroundings of the houses, the construction of latrines can be a part of the solution. If the water point provides potable water that is then contaminated in the home then correct water-handling practices should be promoted.

As an example, Figure 15.3 shows the various routes for the transmission of faecal-oral infections and where action can be taken to break transmission.

The main risk practices associated with water and environmental sanitation (including faecal-oral disease transmission shown in Figure 15.3) can be classified as follows:

- Excreta disposal: as faeces are the primary origin of diarrhoeal diseases, the most effective solution is to separate excreta from the places where people live and work. If this is done properly and the contacts between excreta and the human environment are minimised, a big part of the problem will be solved. The lack of toilets doesn't lead systematically to unhealthy excreta management. In some places with a low density of population, there is enough space to bury the excreta in the bush and prevent it from contaminating the human environment.
- Hand-washing: if hands are not correctly washed with water and ashes or soap after contact with faeces, they become an important route for the transmission of disease.

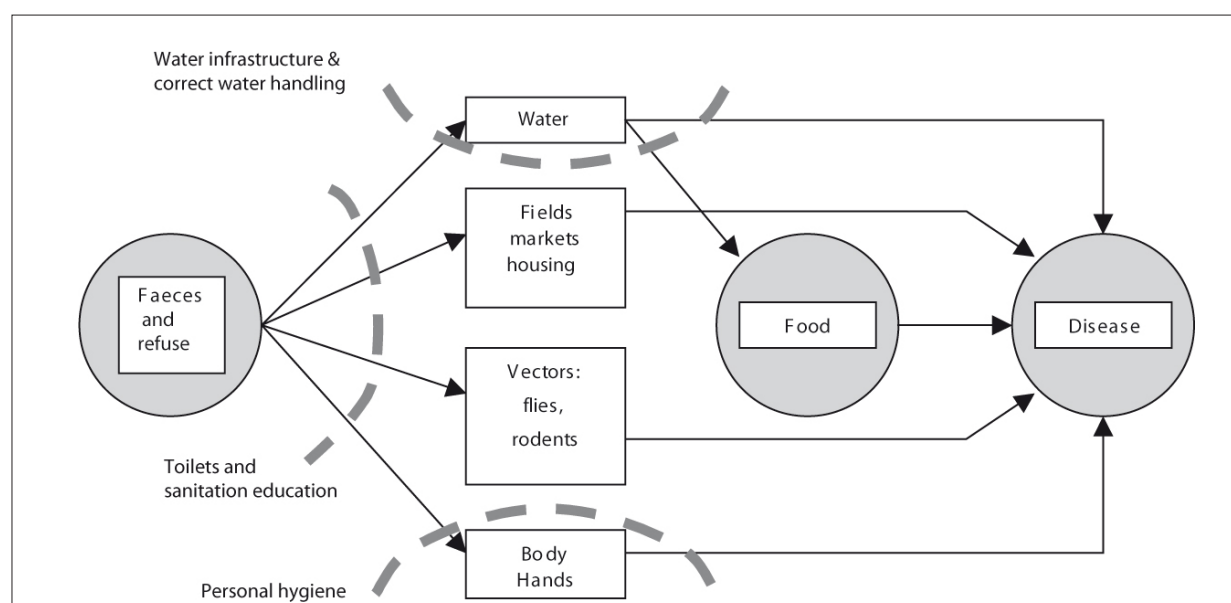


Figure 15.3: Faecal-oral disease transmission routes (adapted from UNICEF, 2000).

- Safe water: hygiene is not possible without a sufficient quantity of safe water, but water becomes a dangerous vehicle of contamination if it is not correctly handled. Even if the water is of good quality at the source, only safe behaviour in terms of water collection, transport and storage will allow people to drink it without being exposed to a sanitary risk. If the quality at the water source cannot be guaranteed, boiling or filtering it is a practice that can be used to protect health.
- Vector control: flies are an important vector of transmission of pathogens from faeces to food. The best way to reduce this transmission is to improve excreta disposal with latrines, or other toilets, with a properly-covered pit or a septic tank. Mosquitoes, rodents and fleas are other examples of vectors transmitting different diseases.
- Food hygiene: bacterial pathogens can multiply in food, especially in humid and warm conditions. This is one of the reasons why diarrhoeal peaks occur mainly during the rainy seasons in tropical countries. Poor handling of babies' bottles, keeping food in warm conditions or cooking with dirty hands are examples of risk practices with food that should be avoided.
- Environmental and household hygiene: presence of solid waste, stagnant water, dust etc. create conditions for the proliferation of different vectors. Stagnant water is favourable to mosquitoes, and thus promotes the transmission of malaria.

2.2.1.2 Defining target audiences

Target audiences are the groups of people who should be reached by the hygiene-promotion programme. They can be viewed as three distinct groups: primary, secondary and tertiary target audiences.

Primary target audiences are those who carry out the risk practices (e.g. mothers and children). Secondary target audiences are the immediate contacts of the primary audience, who influence them (e.g. fathers, mothers-in-law or school-mates). The important tertiary target audience is formed principally of opinion leaders (e.g. religious, political and traditional leaders, and elders). Other factors to be considered when targeting groups include:

- Vulnerability: some groups of people are more vulnerable to health risks (children, women etc.).
- Acceptance and impact: children and women normally have more interest in hygiene issues and it is easier to introduce changes in their behaviour than that of men.
- Capacity and resources: introducing changes in behaviour involves working closely with the people concerned. This can require a big effort, which is often not possible for all the population, and in this case the most vulnerable groups should be prioritised.

2.2.1.3 Defining the communication channels

It is important to know what are the communication channels preferred by the target population and which ones can have the greatest impact for promoting the new safe practices. To find out, some questions should be answered:

- What is the most common communication channel among the target population?
- What are the different forms of discussion, meetings, celebrations and religious practices?
- Who listens to the radio and watches TV regularly? Do they read newspapers?
- What proportion of the target population can read?
- Which channels of communication do they trust?
- Are there traditional ways of communicating such as music, theatre, dance etc. that can be used to transmit a message?

2.2.1.4 Planning the in-depth assessment

The research plan is a detailed plan for the in-depth assessment, based on the outline and results of the preliminary appraisal. It includes a list of questions to be answered during the process,

that are formulated specifically to suit the population concerned. The research team that will carry out the assessment needs to be selected.

Research question list

The list of questions to be answered by the assessment should be prepared. It is best to carry out this process as a team exercise. The list should be limited to those questions that really relate to hygiene promotion; otherwise, it will be difficult to manage information gathering. Once the list of questions is prepared, the appropriate methods to answer them should be selected. Table 15.III shows a typical list of questions.

Table 15.III: Example of question list for a detailed hygiene-promotion assessment.

Issue	Practices <i>What people do</i>	Knowledge <i>What people know</i>	Resources <i>What is available</i>
Diseases	Incidence of diarrhoea Main diseases (diarrhoeal diseases, malaria, skin diseases etc.)	What are the causes of the different diseases reported? How to prevent and treat different diseases	Hospitals, health centres etc.
Water	Origin of drinking water Cleanliness of the water point Containers used for collection, transport and storage Cleanliness Do people treat the drinking water? (boiling/filtering, sedimentation etc.) Person-water contact (do people touch the water to be consumed?) Quality of the water (taste, colour, faecal contamination etc.)	Preferred type of water, why? Relation between water and diseases	Water facilities Resources for treating water: wood, whistling kettle, filters Water containers for collection, transport and storage Cleaning products and tools
Food	Food conservation and protection Food washing and handling	Where do people keep their food? Is it protected from heat, flies etc.?	Cool places Cupboards
Excreta disposal	Where do people defecate? Presence of stools in human habitat State and use of latrines Anal cleansing	Relation between faeces and diseases Advantages of using latrines	Latrines/ toilets Availability of cleaning tools
Environmental hygiene and sanitation	Cleanliness of environment, presence of refuse Stagnant water, disposal of wastewater Where do people dispose of their rubbish? (incineration, burying, nothing)	Diseases caused directly or indirectly by stagnant water Risks from the presence of rubbish	Drainage and sewerage systems Refuse disposal system Availability of cleaning tools
Personal hygiene	Do people wash their hands – before eating? – after defecating? – before cooking? – after washing a child? What do they use for washing hands? (soap, ashes, water alone) How often do people have a bath / shower? Where do people hang out their clothes?	Advantages of washing hands and general personal hygiene	Soap Clean water Facilities: showers, laundries, clotheslines Nail clippers
Vector control	Presence of flies, fleas, mosquitoes, rodents etc. in the human environment	Danger created by different vectors	Mosquito nets Poison or traps for rodents

2.3 Research techniques

It is not enough to describe existing hygiene practices, such as methods of excreta disposal or refuse disposal, without finding out what physical, social, cultural or economic constraints might be operating locally to cause people to do what they do. People in the study population should be involved in the investigation, analysis and interpretation of their own situation. This is important, because they will then have an interest in, and a sense of ownership of, the information gathered, and they will perhaps have an interest in making use of the assessment findings if they are presented in accessible forms.

One of the first things that has to be done when carrying out a survey is to define the scale of the investigation. This depends on the size of the target area; the larger and more varied it is, the larger the study needed. One rule of thumb is to carry on with the investigation until no longer learning anything new.

Another factor in the choice of sample size is the scale of the proposed programme. There would be little point in spending so much time and using up so many resources in the research that nothing is left for the intervention. But skimping on an in-depth assessment could lead to costly mistakes, wasted effort and demoralisation for all concerned.

Below follows a list of methods and techniques that can be used to carry out the in-depth assessment. It is not necessary to use all the methods, however. The techniques chosen will depend on the capacity of the study team to use them. The methods proposed in this chapter are complementary, and the use of several of them should enable crosschecking of the information obtained.

2.3.1 HEALTH-WALK

The aim of this method is to form a rapid understanding of the environment in which hygiene behaviours take place. This method is in fact a structured visit to a settlement without carrying out formal research. It takes between 1 and 3 hours, during which two or three field workers will walk around the settlement. They will observe the different hygiene practices and interactions between people and discuss with some of those met during the walk.

It is better to conduct the health-walk at the hours when most of the hygiene practices occur (first and last hours of the day). The health-walk takes in the main places where important hygiene practices take place, such as water points, latrines, washing areas, markets, surroundings of the households, places where children play and public places.

During the visit a team member takes notes and the team holds a discussion afterwards.

It is a method that allows us staff quickly to understand the people and their environment, but the information collected should be treated with caution, as it is often the fruit of a first impression that can be shallow or even wrong.

In order to improve the effectiveness of a health-walk, it is a good idea to decide on the main places to visit and to organise structured observations of hygiene facilities and behaviours there.

2.3.2 STRUCTURED OBSERVATIONS

This method is appropriate when the objectives of the research are clear and specific, and when there is limited time for the study. The observations, which must be conducted after defining a list of elements to observe, can be carried out during health-walks and interviews.

The focus of the observation can include the following:

- *Water points*: location and state of the water supply facilities, hygiene practices around them:
 - cleanliness of the water point, is it well maintained? is there proper drainage of the water? access of animals to the water point, presence of rubbish or stools in the surroundings;
 - water collection: system used (pump, rope & bucket, person-water point contact, is the same bucket used for everybody, or does each person bring their own bucket? do people clean the container before filling it?), cleanliness of collection system;

- water handling: person-water contact during the process of collection/ transport/ storage;
- water transport: container used and its state of cleanliness.
- *Sanitation facilities*: where do the people defecate? state of latrines (if they exist), are they used? availability of water close to the latrine.
- *People*: appearance, apparent state of cleanliness of hands, bodies and clothes, is it possible to perceive any skin disease? physical contacts between people.
- *Community environment and public places*: general cleanliness, presence of stools near the households, stagnant water, rubbish disposal, existence of flies and mosquitoes, presence of animals, animal-person contacts etc.
- *Household*: level of cleanliness, available space per person, container used for storing water, is it the same as for transport? is it covered? can/do people put their hands in the stored water? places where food is stored, are they cool, are they protected from flies and rodents? aeration, smell, humidity in houses, existence of mosquito nets.

The list should be memorised to ensure that the observation passes as unnoticed as possible and the risks of influencing people's behaviour are minimised.

The observer takes notes that will be discussed with the other members of the team and the information obtained must be cross-checked with that from other sources.

If the observer is rigorous and skilled enough, the data collected using this method is more objective and reliable than secondary information coming from other people's reports.

2.3.3 KEY-INFORMANT INTERVIEWING

This method is appropriate for obtaining specific information on hygiene issues. It involves interviewing people who are assumed to be knowledgeable about problems related to health, hygiene, sanitation and water. Typical key informants for these issues can be:

- health workers;
- staff of other agencies working in the area;
- traditional authorities and older members of the community;
- staff of the ministries related to health and water.

In the interview, the interviewer raises the point of interest and then lets the interviewee lead the discussion. If the person is really knowledgeable about the issue, she/he will become a key informant.

This is a good method to research issues related to hygiene practices or the specifics of the context, but researchers should be aware of possible bias that can influence the results of the assessment, particularly if the key informants interviewed are limited in number.

2.3.4 KAP SURVEY

The KAP (Knowledge, Attitude and Practice) survey is a method that allows an assessment of needs and an evaluation of the impact of a hygiene-promotion programme. This method is carried out through structured interviews, which allows quantitative results to be obtained which can then be statistically analysed.

2.3.4.1 Types of KAP survey

Exhaustive survey

This survey covers the whole population. It is the most accurate (100% of people interviewed), but it is difficult to carry out if the population is large (> 500).

Surveys by sampling

These surveys are carried out on a representative sample of the population.

In simple random sampling, each family interviewed is chosen arbitrarily using a table of random numbers. This requires a list of the families and a plan of the settlement where these families live.

In systematic sampling, the first family to be interviewed is chosen at random using a table of random numbers; the following families are designated using a sampling step which is added to the previous number until the desired sample size is obtained.

The sampling step P depends on the size of the sample:

$$P = \frac{n}{N}$$

where n is the number of families in the target population, and N the sample size. Systematic sampling also needs a list of the families and a plan of the settlement.

In cluster sampling, which is suitable for large populations (> 5 000), a list of villages in the area, or sections of a settlement, and their population is needed. The principle consists of determining the number of families that constitute a cluster by following a precise method, and then localising the clusters to be sampled. A fixed number of families are interviewed within each cluster.

2.3.4.2 Sample calculation

General case

$$N = \frac{t^2 (p \times q)}{d^2}$$

where N is the sample size; t is the error risk parameter related to the confidence interval (for ACF surveys, a confidence interval of 5%, which corresponds to $t = 1.96$, is assumed); p is the expected prevalence (for ACF surveys, a value of $p = 0.5$ is chosen, i.e. 50%); $q = 1 - p$, i.e. $q = 0.5$ for ACF surveys; d is the degree of accuracy required, generally 5%, i.e. all the indicators studied are within an accuracy range of 5%.

The accuracy level must be chosen depending on the objective: if the aim is to get an idea of population knowledge in order to adjust hygiene-education actions in the field, a 10% accuracy is sufficient. If the aim is to highlight a statistically important change within the population, greater accuracy is essential, but this requires an increase in sample size, and therefore in the time and resources required for the survey. The problem is to find a good compromise between operational feasibility and epidemiological rigour.

Particular cases

Cluster surveys can decrease the representativity of the sample. The families within each cluster are neighbours, and can therefore present similarities in the characteristics studied. This is called the cluster effect, and the sample needs to be multiplied by 2 to counteract it.

A correction factor can be applied when the sample size reaches one tenth that of the target population (large sample in relation to the population). In this case:

$$Nr = \frac{N}{1 + (N/n)}$$

where Nr is the size of the corrected sample, N the size of the sample calculated using the general formula, and n the size of the target population (number of families in the target population).

2.3.4.3 Examples

Village with 80 families

The number of people is low, the houses are concentrated, and the village plan has been made. In this case, an exhaustive survey can be carried out.

Village with 1 000 families

The number of people is too high for an exhaustive survey. Therefore, a survey of a simple random sample is carried out:

- stage 1: draw up a list of families, number them (from 1 to 1 000), and make a plan of the village;
- stage 2: size of the sample: $N = 1.96^2 (0.5 \times 0.5) / 0.05^2 = 384.16$ (an accuracy of 5%). The size of the sample is large in relation to the number of target families ($N > n/10$); therefore it can be corrected so that $Nr = 384.16 / [1 + (384.16/1\ 000)] = 277.54$, rounded to 278;
- stage 3: draw 278 numbers from the table of random numbers, which correspond to families to be interviewed (278 of the 1 000 families will therefore be surveyed).

To draw 278 numbers from the table of random numbers is quite a long process, so systematic random sampling is another possibility:

- stage 1: draw up a list of families, number them (from 1 to 1 000), and make a plan of the village;
- stage 2: size of the sample: $Nr = 278$;
- stage 3: calculate the sampling step: $P = 1\ 000/278 = 3.60$, rounded to 3;
- stage 4: draw the sampling interval (a number between 1 and 1 000) at random, from the table of random numbers - for example 25;
- stage 5: determine the number corresponding to the families to be interviewed, as follows:
 - 1st family = number 25;
 - 2nd family = number $25 + 3 = 28$;
 - 3rd family = number $28 + 3 = 31$ and so on, until 278 families are obtained.

Population of 8 000 families

This population is scattered throughout several sectors of the same town or throughout several villages. In this case the cluster sampling method is the most suitable:

- stage 1: determine the number of target families, in this case 8 000;
- stage 2: calculate the size of the sample: $N = 2 \times 1.96^2 \times (0.5 \times 0.5) / 0.1^2 = 192$, which is rounded to 210 in order to work with 30 clusters of 7 people each (WHO model used for vaccination surveys);
- stage 3: calculate the sampling step: $P = 8\ 000/30 = 266.66$, rounded to 266;
- stage 4: calculate the cumulative population per village:

	Number of families	Number of accumulated families
Village 1	500	500
Village 2	300	$500 + 300 = 800$
Village 3	350	$800 + 350 = 1\ 150$
Village 4	1 000	$1\ 150 + 1\ 000 = 2\ 150$ etc.
TOTAL	8 000	8 000

- stage 5: draw the first cluster from the table of random numbers. This number must be between 1 and P, that is, between 1 and 266 - for example 150; this is the sampling interval. In the example, the population of village 1 includes 150 ($150 < 500$), and gives the first cluster;
- stage 6: determine the other clusters to be interviewed by adding the sampling step to 150: $150 + 266 = 416$. The second cluster is also included in the population of village 1; continue until 30 clusters are obtained:

	Number of families	Cumulative number of families	Numbering of families	Number of clusters selected per village
Village 1	500	500	1 to 500 (150; 150 + 266 = 416)	2
Village 2	300	500 + 300 = 800	501 to 800 (416 + 266 = 682)	1
Village 3	350	800 + 350 = 1150	801 to 1 150 (682 + 266 = 948)	1
Village 4	1 000	1 150 + 1 000 = 2 150	1 151 to 2 150 (948 + 266 = 1 214 1 214 + 266 = 1 480 1 480 + 266 = 1 746 1 746 + 266 = 2 012) etc.	4
TOTAL	8 000	8 000		

– stage 7: select the families to be interviewed within the clusters. For each cluster, go to the centre of the village (7 families per cluster, see stage 2). The direction to follow is determined by spinning a bottle or pen then going in that direction and choosing the houses one after another: the first one is chosen at random, and the following are those with the nearest access door. If a family is absent, it is necessary to try to find a family member somewhere else in the village, or return to their house at some other time.

If the end of the village is reached before completing the sample, the process should be started again from the centre, following a different direction.

The main strength of this kind of survey is the possibility of quantifying the results and analysing them statistically.

The main limitation is the lack of people's participation in the survey and the directive way in which the interviews have to be carried out. This means that results, although seemingly good from a statistical point of view, have a risk of some bias in the responses, especially if the interviewer is not skilled enough to avoid it. The staff in charge of the survey have to be well trained to get correct information and truthful responses for every question. As an example, if people know that the organisation involved works on water projects, the people may report that they spend three hours per day fetching low-quality water, even if this is not completely true.

It is always good to complement this survey with a participative method such as focus-group discussion.

2.3.5 FOCUS-GROUP DISCUSSION

Focus-group discussions are discussions on a specific topic carried out with people from similar backgrounds. Homogeneous groups are chosen because mixing age, gender or social levels may inhibit some people, especially women, from expressing their views.

This is not a stand-alone method, but can complement another one, a KAP survey for instance, and can explain meanings that cannot be clarified statistically.

A key point of this technique is to listen to, and observe, the participants: the content of what people say is as important as how it is said.

The number of people per discussion can be from 6 to 10, and the number of surveyors required is between two and three:

- the animator: who leads the conversation and raises the topics of interest;
- the note-taker: who writes what's being discussed;
- the observer: who observes the discussion and take brief notes about what they see.

For the equipment needed, pictures can be used to introduce the topics, and a sound recording can be made of the discussion (this is a good solution when there are not three surveyors available).

Box 15.1

Example of a questionnaire used in Ivory Coast.

Date (DD/MM):

Surveyor's name:

Cluster no. :

Woman's name:

Family no. :

Did you attend school?

☐ Yes ☐ No

If yes, what level did you reach?

☐ Primary ☐ Secondary

Where do you take your drinking water from?

during the dry season:

during the rainy season:

☐ traditional well

☐ traditional well

☐ renovated ACF well

☐ renovated ACF well

☐ ACF pump

☐ ACF pump

☐ HV pump

☐ HV pump

☐ excavated spring

☐ excavated spring

☐ renovated ACF well

☐ renovated ACF well

☐ creeks

☐ creeks

☐ stored rain water

☐ stored rain water

☐ stream

☐ stream

If you do not use the water point provided by ACF:

Why do you prefer to take your drinking water where you do, instead of from the ACF water point? :

☐ there is no ACF water point

☐ the renovated spring is too far away

☐ the water from the pump tastes bad

☐ the waiting time at the improved water point is too long

☐ the renovated well is too far away

☐ the pump does not work

☐ other (specify):

Do you clean the place where you take your drinking water from?

☐ Yes ☐ No

If so, please describe how you clean it:

Do you keep your drinking water separated from the water used for other purposes?

☐ Yes ☐ No

In what kind of recipient do you keep the drinking water for your family?

during the dry season:

during the rainy season:

☐ barrel

☐ barrel

☐ clay jar

☐ clay jar

☐ basin

☐ basin

☐ bucket

☐ bucket

☐ UNHCR jar

☐ UNHCR jar

☐ other, please specify:

☐ other, please specify:

Ask to see the drinking-water storage vessel: would it be possible to see it?

☐ Yes ☐ No

Does the recipient have a lid (which does not let in light)?

☐ Yes ☐ No

How long does it take to empty the water-storage container?

- ☐ more than a day (please specify):
☐ one day ☐ 2 days ☐ 3 days
☐ more than 3 days (please specify):

Could you show us how you clean your drinking-water recipient (this one or another one)?

- ☐ Yes ☐ No

If so, please observe and note:

- ☐ rubs with their hands and rinses with water
☐ rubs with a brush and rinses with water
☐ rubs with soap and rinses with water
☐ rubs with sand or ashes and rinses with water

In your opinion, how should our drinking water be?

- ☐ it should have a good taste
☐ it should be clear
☐ it should be odourless
☐ it should not make you ill
☐ it should be cool
☐ other (please specify):

Where do you take the water you use for washing yourself from?

during the dry season:

- ☐ traditional well
☐ renovated ACF well
☐ ACF pump
☐ HV pump
☐ excavated spring
☐ renovated ACF spring
☐ creeks
☐ stored rain water
☐ stream

during the rainy season:

- ☐ traditional well
☐ renovated ACF well
☐ ACF pump
☐ HV pump
☐ excavated spring
☐ renovated ACF spring
☐ creeks
☐ stored rain water
☐ stream

Do you use a traditional shower?

- ☐ Yes ☐ No

Where do you take the water you use for washing your clothes and kitchen utensils from?

during the dry season:

- ☐ traditional well
☐ renovated ACF well
☐ ACF pump
☐ HV pump
☐ excavated spring
☐ renovated ACF spring
☐ creeks
☐ stored rain water
☐ stream

during the rainy season:

- ☐ traditional well
☐ renovated ACF well
☐ ACF pump
☐ HV pump
☐ excavated spring
☐ renovated ACF spring
☐ creeks
☐ stored rain water
☐ stream

Where do you leave your plates and bowls to dry?

- ☐ on the ground ☐ on a table/bench
☐ in a bowl/basin
☐ other (please specify):

Where do you leave your clothes to dry?

- ☐ on the ground ☐ on a washing line/bamboo line
☐ other (please specify) :

What are the most common diseases among the children of your village?

- ☐ 1. ☐ 2. ☐ 3.

In your opinion, what are the causes of those diseases ?

☐ don't know

☐ 1.

☐ 2.

☐ 3.

Do you think that water can carry diseases ?

- ☐ Yes ☐ No ☐ I don't know

Is so, which ones?

☐ diarrhoea

☐ worms

☐ others (please specify) :

In your opinion, how can you avoid catching these diseases?

☐ don't know

☐ 1.

☐ 2.

☐ 3.

What do you use as a toilet?

☐ the bushes

☐ traditional latrines

☐ concrete latrines (VIP, HCR)

If there are latrines in your village and you do not use them, why don't you use them?

☐ there are no latrines

☐ they are too far away

☐ they are dirty

☐ the door is broken

☐ they are smelly

☐ they are locked

☐ they are private property

If there are latrines in the village, do you help your younger children to use them?

☐ don't have children

☐ Yes

☐ No

Do you normally wash your hands after going to the toilet?

☐ Yes

☐ No

If so, why do you wash your hands after going to the toilet?

☐ to prevent diseases

☐ cleanliness

☐ other (please specify):

What do you do when your children suffer from diarrhoea?

☐ go to the medical centre / clinic

☐ give them traditional medicines

☐ give them oral rehydration solution made by yourself

☐ buy medicines in the market

☐ other (please specify):

How many children of five years or under do you have?

☐ none

☐ three

☐ one

☐ four

☐ two

☐ other (please specify):

How many of your children of 5 years or under have suffered from diarrhoea in the last 15 days?

☐ none

☐ three

☐ one

☐ four

☐ two

☐ other (please specify):

Table 15.IV: Various tools that can be used for focus-group discussions.

Tool	Information
Three-pile sorting	People's knowledge concerning hygiene issues Risk practices and their causes Possible safe target practices People's perception about their hygiene behaviour
Community mapping	Contextual information Resources, hygiene facilities
Seasonal calendar	Contextual information Time availability of the people Culture, habits
Task analysis	Target audience for the programme Gender roles

A focus-group discussion can be used to introduce ideas or messages to the group, so it is also a tool for the implementation phase.

There are many different ways to carry out a focus-group discussion. While in some cases it can be simply a direct discussion between surveyors and participants, in others particular tools can be used to facilitate the discussion as described below.

2.3.6 THREE-PILE SORTING

The objective of this method is to understand the population's point of view concerning different hygiene practices. First some drawings of different hygiene practices (defecation, hand-washing, throwing the waste to the river etc.) are shown to groups of participants, who should then decide after a discussion whether the practice shown in the picture is good or bad, and why. If the drawing is not clear for them or if there is not a consensus at the end of the discussion, the picture will be classified as in between.

When using this method, it is very important to take notes of the comments made and to attach them to the corresponding pictures.

This method is good for starting the study because it breaks down initial barriers between the assessment team and the population. It is also an opportunity to introduce sensitive subjects such as defecation, latrines etc.

2.3.7 HISTORY LINE

The objective of this method is to understand local history as told by the elders of a community. This experience will enable learning about different issues:

- how local, national and international events are perceived by the population;
- how people perceive themselves;
- the history of specific issues that are of interest to the programme (water management etc.).

It is important to introduce the assessment team before starting the discussion and to tell the participants what are the objectives of the study and explain that the information will not be used against them. Then the participants use local materials to mark the events that have been important for them, on a line that represents time.

This method also helps to establish good relations with the members of the community and especially with the elders, who tend to be forgotten key informants.

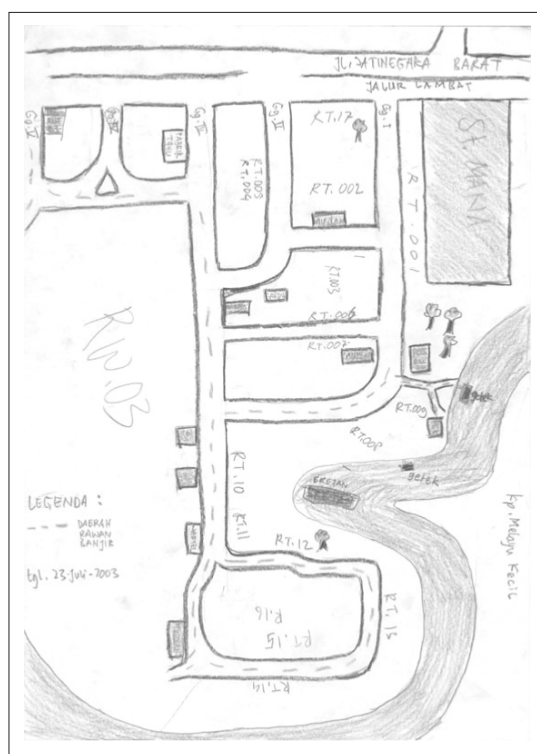


Figure 15.4: Community map of a neighbourhood in Jakarta (Indonesia).

2.3.8 COMMUNITY MAPPING

In this method the participants design a map of their local environment, showing places that are important for them, and others that are interesting for the study: places where people collect water, sites that are important for health and hygiene, sanitation facilities (where people throw their rubbish, go to defecate, wash their clothes etc.)

While people are making the map, it is important to consider that what is happening in the group (discussions, ideas raised, attitudes towards specific issues etc.) is as important as the map itself. The map should provide information about physical places and about the attitudes of the people towards them.

2.3.9 SEASONAL CALENDARS

This method is used to understand the timeframe regarding climate, diseases and the livelihood activities of the population over the year. As with the methods described above, it requires skilled surveyors.

When talking about disease outbreaks, a ranking system is also developed in order to highlight what is high, medium or low incidence.

2.3.10 GENDER ROLES/ TASKS ANALYSIS

The objective of this is to answer the question “who does what?” in terms of gender. After having observed what are the local arrangements concerning tasks and resource management, researchers try to understand which tasks are done, and which resources are managed, by men, women or children.

One of the most commonly used systems is to prepare several cards with a different task drawn on each one. The group of participants look at each of the pictures and then reach a consensus on who is performing each of the described tasks. The cards are classified in three piles (men, women and both/not clear) and comments about each of the activities are noted.



Figure 15.5: Making a seasonal calendar.

2.3.11 WATER ANALYSIS

Water analysis is a complementary method that can provide objective information about the sanitary risks caused by the bad quality of drinking water.

The difference between the quality of water at the point of consumption and at the collection point provides information about how people handle the water, and the need for improving their practices in terms of water collection, transport, treatment, storage etc.

If the quality of the water collected from a safe water point is bad, it means that efforts have to be made to improve water handling.

2.4 Recruitment and training of the assessment team*

2.4.1 CHOOSING THE ASSESSMENT TEAM

In general the assessment team should be chosen from the project staff and the local population, and should include:

- Somebody who thoroughly knows the community where the study will be carried out.
- Somebody with good writing skills.
- Somebody who speaks and understands the language of the target community perfectly.
- A senior staff member with knowledge of the target area and extensive experience of this kind of project: this person can be useful when planning the assessment and for translating the outputs of the assessment into project aims.

Every member of the team should be:

- Respectful of the population.
- Able to stay in poorer areas than they may be used to living in.
- Willing to learn about local people and their culture.
- As distant as possible from political leaders in the areas.
- Able to maintain a good team spirit with the other surveyors.
- Preferably a native speaker of the target population's language.
- Trusted by the population

If there is a conflict in the target population, team members should not belong to one of the sides in conflict.

* Adapted from Unicef 1999.

2.4.2 TRAINING THE ASSESSMENT TEAM

Once the study team is chosen, it is necessary to prepare them for the assessment with different training aspects:

- Sensitisation for the assessment work and what it means for the interest of the community.
- Acquiring the technical knowledge and skills required for this kind of investigation.
- Improvement of interpersonal skills (presence, style of speech, greetings etc.) in order to make people feel comfortable with the presence of the surveyor. The objective is to avoid the “observer effect” where people react in a different way because of the presence of a stranger.
- Involvement of the team in planning the assessment in order to increase their capacities to lead the study by themselves.

Training contents

First of all the trainer will have to find out what are the existing skills and knowledge of the team in order to orient the training to strengthen weak points and to benefit from the knowledge of the more skilled team members in helping the others learn.

The training should be as participatory as possible and the approach should be to help the team learn rather than to impose concepts.

The skills to be practiced during the training are:

- Water, sanitation and hygiene issues: relationship between water use, sanitation, people’s behaviour and diseases.
- Observation skills: the trainee needs to learn to separate the trivial details from the important aspects and to write a systematic detailed description of what is observed, avoiding possible biases.
- Interviewing skills: the members of the team need to be able to establish a good rapport with the interviewed person and to listen keenly.
- Moderating skills and discussion techniques: many of the assessment techniques consist of a discussion with community members. The discussions will be moderated by the surveyors, who need to be skilled in terms of discussion management and discussion techniques such as focus groups, gender roles, seasonal calendars etc.

2.5 Analysis of results

Once the results of the assessment are analysed it should be possible to answer the questions “what is the problem?” “what are the causes of this problem?” and “what is the role of human behaviour?”. The steps in the analysis of the assessment information are:

- Preparation of a summary of the data in tables or graphs to facilitate the preparation of the report and to allow a clear presentation of the information (see Figures 15.6 and 15.7).

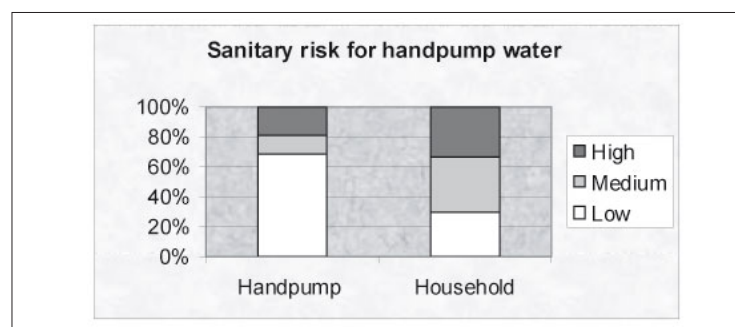


Figure 15.6: Sanitary risk for handpump water.

The results of a study carried out in Myanmar show that water becomes contaminated between collection (at the handpump) and consumption (in the house). It suggests bad water-handling practices.

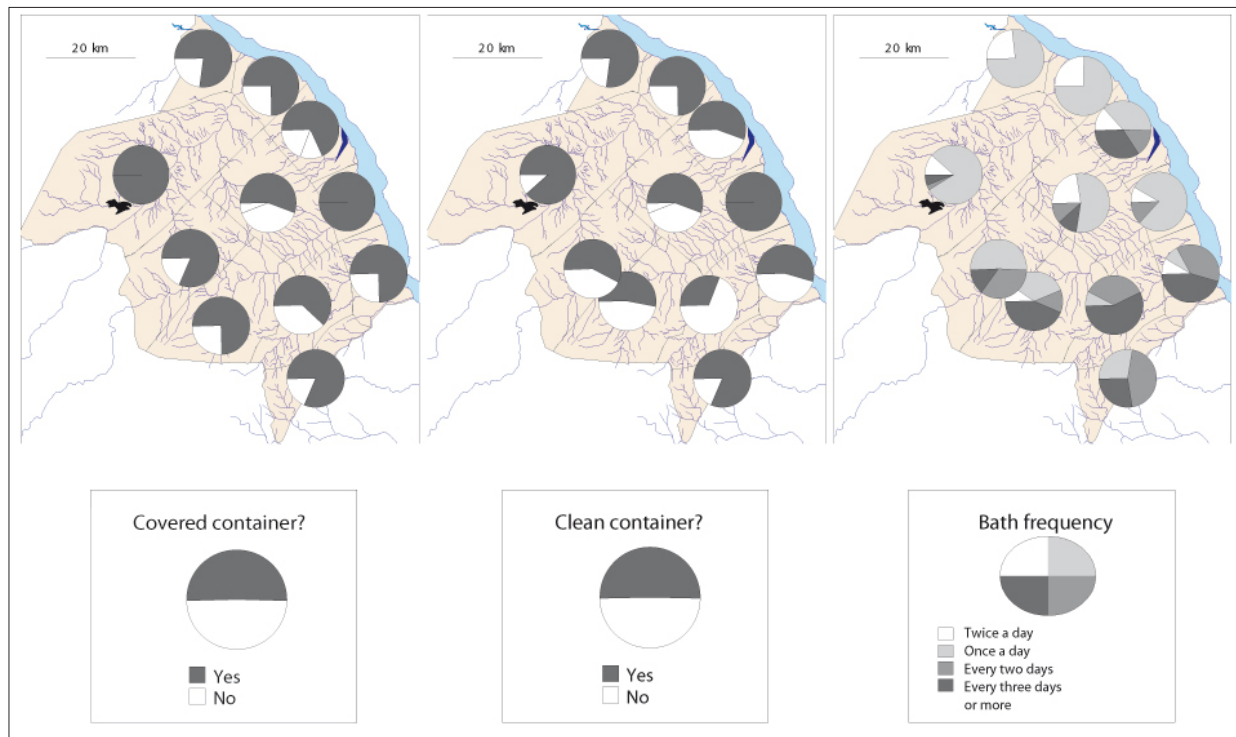


Figure 15.7: Use of G.I.S. for analysing the results of a hygiene assessment in Mozambique (1999).

- Comparison of the information with the preliminary set of questions prepared when making the detailed assessment plan. This will assist in interpreting the information and identify if something was missed during the assessment process.

- Distribution of the report. All potential partners should have copies of the report and it should be translated into local languages in order to share the information with local institutions and the community assessed.

3 Programme planning and design

The programme moves to the planning and design stage when the information from the assessment has been collected, analysed, and presented. The emphasis in this stage of the programme is to set goals, if any at all, and to design the methods to accomplish these goals. Continued input from all parties involved in the assessment is essential as decisions are made.

3.1 Setting Programme Goals

Now it is the time to answer the question “What are we going to do and how?”. Programme goals are set based on the results of the assessment phase of the programme.

The following 6 myths of hygiene education identified by Unicef & LSHTM (1999) are common ingredients of failed hygiene-promotion programs. These ideas ought to be dismissed while setting the programme goals.

People are empty vessels into which new ideas can simply be poured.

Introducing new ideas and concepts can create confusion and incomprehension when a society already has coherent explanations for diseases.

People will listen to me because I'm medically trained.

Health personnel may believe that the fact they have been trained and are qualified will automatically mean that they will be listened to and believed by the community members. A health worker who is thought to be saying, "it's your fault your kids get sick and die, it's because you are dirty" will gain little respect from the communities.

People learn germ theory in a few health-centre sessions

Even in the best of circumstances, helping people learn new ideas about hygiene and disease (when this learning is necessary for hygiene-behaviour change) is a long, slow process.

Health education can reach large populations.

If a health-promotion programme were to reach all the mothers in an area it would require an impracticably large number of hygiene-education sessions.

New ideas replace old ideas.

Hygiene promotion often just adds one more idea about disease without erasing the old ones.

Knowing means doing.

We cannot assume that education about germs and diarrhoea will lead directly to behaviour change, or have a major impact on diarrhoeal diseases.

3.2 Selection of target practices

Programmes often take on too many goals. To be effective, the programme must focus on a few practices selected among those identified during the assessment.

The criteria for targeting areas for change in practice are:

- 1) Importance of the new practice in terms of disease reduction.
- 2) Ability of the people to adopt this practice: do they have the means?
- 3) Willingness of the people: will they want to adopt the new practice?
- 4) The impact achieved for the effort required.

Although all the suggested practices mentioned in Table 15.V can be important, it is not possible to include all the safe practices on the list, and five were chosen because of their greater importance and feasibility in that context: hand-washing (impact on three different problems), use of latrines and management of children's excreta (complementary to the latrine programme being implemented), cleaning and maintaining the water point (complementary to the construction programme being implemented), and refuse disposal (as it was one of the main problems identified).

Testing the practices chosen: behaviour trials

It is recommended to check that the practices chosen to replace the risk ones are feasible and realistic. One method for testing this is the behaviour trial, in which a limited number of volunteers are selected from among the target audience, after presenting them the results of the study in the community and the advantages of adopting the new practices.

The volunteers (women in general) adopt the safer behaviours during two weeks and a member of the team visits each volunteer at home every day in order to advise and to observe the progress. At each visit, the observer will note every event which occurred in the process of adopting the new practice and seek the answer to different questions:

- Is the practice adopted?
- What are the difficulties and how are they solved?
- What can make it easier to adopt the new practice?
- Does the volunteer like the practice? Why?
- What were the costs and the benefits for the volunteer?

Table 15.V: Example of targeting safe practices to promote.

Problem	Risk behaviour	Safe practice to promote	Comments
Presence of stools in human environment	People don't use the latrines Mothers throw the baby faeces in the street	People use the latrines Parents throw baby faeces into the latrine pit	Latrines recently installed
Contaminated drinking water	Different buckets used to collect water from the well People touch the water with dirty hands Bad water-point maintenance People don't clean water containers Water containers not covered People don't boil the water	All the well users use the same collection bucket People don't touch the water People wash their hands People clean and maintain the water point People cover the water containers People boil the drinking water	In this culture people must touch the water No wood available for boiling water
Contaminated food	Food kept on the ground People touch the food with dirty hands	Food kept in a cupboard People wash their hands	Cupboards too expensive
Lack of personal cleanliness	Dirty hands People take a bath once a month	People wash their hands People take a bath once a day	Limited availability of water
Dirty environment	Rubbish thrown in the street Stagnant water	People burn or bury their rubbish People clean and maintain drainages	

At the end of the process the sequence of events are summarised in a table as in the following example:

Practice	Percentage of people adopting this practice	
	Initial	Final
Washing hands after defecating	10%	30%
Burying or throwing children's stools into the latrine	5%	18%

This technique will allow the new practices chosen for replacing the risky ones to be redefined or modified.

3.3 Selecting the target audience

The in-depth assessment should have identified which people carry out risky hygiene practices. But people do not act in isolation; they are members of family groups and of a wider society that has a great influence on what they do. Communication to encourage behaviour change should be directed at the people who make the key decisions in the family and the community.

It should also be considered at what stage of people's life it is better to reach them with the chosen message (pre-school, school, young, adult, elderly).

3.4 Designing the message

Now it is necessary to decide what is the best way to convince the population to replace the risk practices by the safe target practices.

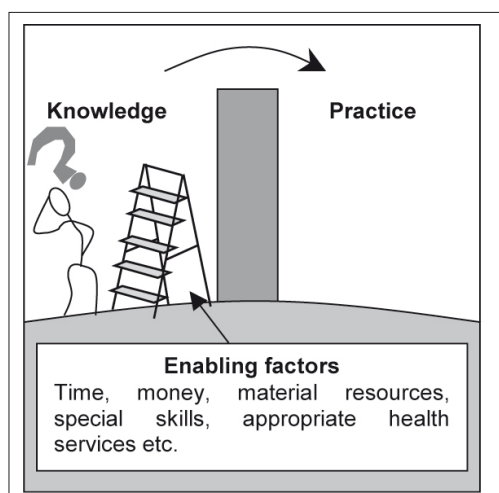


Figure 15.8: Enabling factors.

This means finding out from the primary target audience what they like about the safer practices. Communication strategies are then built around these positive values.

The methods used to find out what people like about the safer practices (change in the risk practice) can include behaviour trials, semi-structured interviews and focus-group discussions. With the information obtained a positioning statement is produced that picks out a key advantage and a key goal for each target practice.

Examples

I want to clean up stools and throw them in a latrine because ... then people won't step in them and my neighbours will respect me.

I want to wash my hands with soap after contact with stools because... it leaves my hands smelling nice and I feel good when I feel clean.

It is not advisable to position the messages around the fear of disease and the death of children. For example, messages about diarrhoea don't always make sense to people, and tend to revolt them because they are profoundly unattractive. A message about having healthier children and fewer medical costs is more positive and attractive.

A message will only be effective if the advice presented is relevant, appropriate, acceptable and put across in an understandable way. In the configuration of the message it is necessary to play with the understanding of health that people have and the existing influences on their behaviour (Figure 15.8).

Good advice should:

- be defined according to the results of the previous assessments;
- recommend a target practice previously identified;
- respect the social environment and culture of the community;
- consider the enabling factors: it should be affordable and realistic;
- require a minimum of time and effort;
- be felt as a need by the community;
- imply a noticeable benefit;
- be easily understood.

3.5 Communication channels

The level of communication should be chosen depending on the kind of message to be transmitted, the size of the target population and the capacities of the team. The channels used will depend on the level chosen:

- Individual/family level:
 - one-to-one advising;
 - patient education;
 - home visiting.
- Community level:
 - community participation/discussion;
 - group teaching;
 - exhibitions;
 - demonstrations.
- Regional/national level:
 - mass media;
 - social mobilisation.

On the basis of the assessment of the target audience, the team then decides which channels of communication are likely to be most effective and within the programme budget. The communication objectives need to be translated into activities and events designed to get the message across. These are commonly known as communication supports. Communication supports use the senses of vision and hearing to convey messages.

The various supports can be classified into:

- *Audio-visual*: a support that is seen and heard; it can include theatre, video, film and teaching with audio-visual materials.
- *Oral*: a support that uses words alone to pass messages; this may be in the form of a story, a song, a radio announcement or a visit from a health worker.
- *Written*: includes leaflets, posters and articles in the press.
- *Visual*: includes posters, stickers and flip-charts.

In choosing the supports for the communication plan there are various points that should be kept in mind:

- *use of local idiom*: so that people feel that it relates to them;
- *attractiveness*: so that it pulls people in;
- *repetition*: so that messages are retained;
- *easy to understand*: so that nobody gets confused;
- *participatory*: an exchange of views is most effective;
- *provocative*: so that the messages are memorable and get discussed;
- *show by example*: so that the new behaviours are seen to be possible.

When choosing the communication channel it should be remembered that:

- we retain just 10% of what we hear;
- we retain about 30% of what we hear and see;
- we retain more than 60% of what we do.

Therefore actions are more effective than words in retaining information.

Sometimes there may be materials already developed and available for use in the programme. These ready-made materials can save time and money, but it is important to consider who was supposed to be their original target audience. It is a common mistake, for example, to use a tool that was designed for children for communicating with adults.

Below is a list of some of the tools more frequently used in ACF programmes.

3.5.1 PICTURES

Pictures and images can be used in different ways:

- as a support for face-to face communication;
- as a component of printed media (newspapers, t-shirts, stickers etc.).

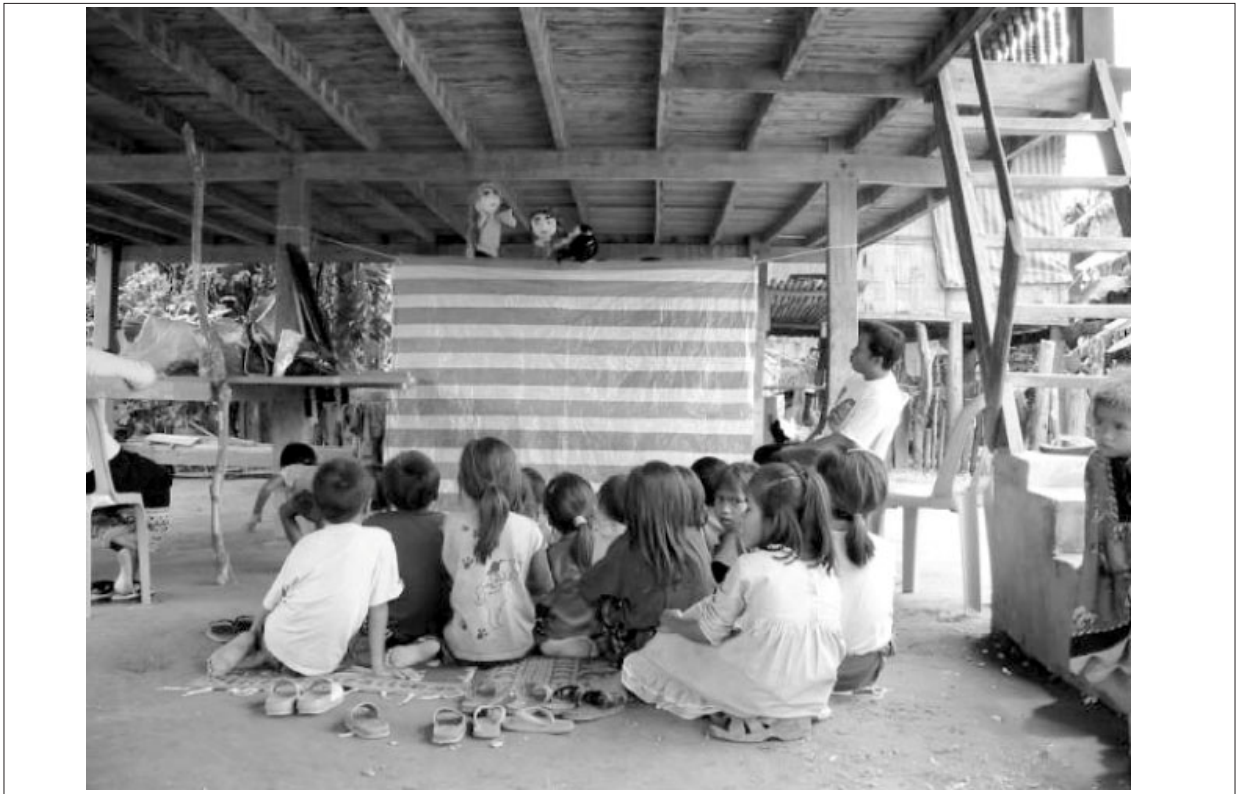


Figure 15.9: Use of puppets for hygiene promotion in Laos.

The following points should be considered when using pictures:

- make details accurate and objects familiar to the audience;
- avoid distracting details;
- be careful when using a sequence of pictures as it can create confusion;
- use no more than one message per picture;
- pre-test with samples of the intended audience.

3.5.2 THEATRE/ PUPPETS

Generally, this is a tool that has the advantage of being attractive for the audience. Experience shows that the impact of this activity tends to be higher than using simple oral sessions.

Drama or popular theatre can also be used to promote community participation. Following the show, people can be involved in discussing issues and suggesting solutions. Sometimes this can also happen during the show.

Puppets are a form of drama with a lot of potential for hygiene promotion. In some countries, such as Indonesia, puppets are a tradition. One advantage of puppets is that they can transmit sensitive messages that would not be possible for an actor in a play. There are messages that the population would not accept coming from a person but they will listen if it is just a puppet talking.

3.5.3 STORYTELLING

While some of the proposed methods require a certain level of formal education, storytelling is closer to the way most people think. In addition, people remember things better explained in this format than in a formal talk or conference.

The story should be such that people identify with the figures and the situations presented.

3.5.4 SONGS

In some countries, such as Sierra Leone, music combined with dance is used traditionally to tell events and stories. The singers of the village are quite appreciated by the community and people listen to what is said in their songs. This channel has a powerful effect on emotions and it was used by the hygiene team in this country with good results.

Songs can be used as media (publication of CDs for example) or as a component of hygiene-promotion sessions in villages or schools.

3.5.5 VIDEO, SLIDES ETC.

These kinds of tools are also good because of their attractiveness, but they should be used with care, because sometimes the tool itself takes more attention from the audience than the message it is supposed to transmit, as it is such a novelty, given the standard of living of the people watching.

3.5.6 MASS MEDIA

It is also possible to include messages as advertisements in newspapers, on the radio and the television etc. In this case it is always good to present the message and discuss it with samples of the target audience before publishing or broadcasting it.

These tools are mainly used to create an awareness about a topic, after which the teams carry out a face-to face communication in order to reinforce the process of behaviour change.

3.6 Selection of the communicators

The question now is who is going to be responsible for transmitting the message to the target audience. The people chosen should be as close as possible to the target community and, if possible, should belong to the community.

This can be achieved in several ways:

- Recruitment of staff by the organisation to implement the programme directly. In this case it is recommended that they are native to the region of the target communities. As an example, in Mozambique, ACF developed the hygiene programme through a team of 6 promoters who originated from the different areas targeted by the project. They knew their respective areas of work thoroughly and they were also known and respected by the people in the different communities with which they were working. Each one of them was based in their respective work area and only left their area for a few days at the end of each month to meet the other fieldworkers in the district capital to discuss progress and write a monthly activity report.

- Working through a local NGO.

- Working through groups of local people such as theatre troupes.

- Training of trainers: in this case the agency staff is composed of trainers who will train members of the community, who in turn will be in charge of passing the message to the target audience. In this case there are two options:

- training of health or education staff: health workers, teachers, midwives etc.;
- training of one or more Community Hygiene Facilitators (CHFs), who are people from the community, chosen by the members of their community.

3.6.1 TEACHERS AS HYGIENE COMMUNICATORS

In the planning phase it is important to remember the schools. Children are usually an important part of the target audience, and training teachers for health is a good way to increase the project's impact and guarantee some sustainability.

Working with schools and children has several advantages:

- Most of the time, children belong to the target audience as they are more exposed to diarrhoeal diseases.
- Children are more open than adults to receiving messages. The message gets across more easily as they have fewer established habits, making it easier for them to adopt the new, safer practices.
- Sustainability: working with children is an investment for the future. If they adopt a new practice, it will be with them throughout their lives. Furthermore, if teachers are trained to include hygiene in their programmes, this provides some continuity after the organisation leaves.
- Children adopting safe practices in their homes can be a good seed to spread these practices among parents and then the entire community.

There are good examples of this kind of activity in Myanmar, where children paint newly-constructed latrines with drawings showing safe practices for excreta disposal (washing hands after using the latrine, keep the latrine clean etc.) or East Timor, where a different range of activities, such as role plays and songs, are organised with the teachers. In both cases the teachers are trained during the first sessions implemented by the project team, and then carry out the activity by themselves afterwards with the help of an educational kit.

3.6.2 COMMUNITY HYGIENE FACILITATORS

In ACF programmes, it is becoming more usual to work with CHFs, who are members of the community, trained by ACF staff to be a resource person for their village concerning hygiene issues.

Even though the old proverb says that nobody is a prophet in his own land, it is true that people tend to understand somebody who belongs to the same community better than an outsider. Furthermore, the fact of seeing what a member of their own community is able to do can be a stimulus for them.

The main advantages of working with members of the target audience as hygiene promoters are:

- Local knowledge: they know the community well.
- Logistics: as the sensitisation and the transmission of the message are done by a member of the community, the volume of activity required of ACF staff is reduced.
- Sustainability: the promotion of safe hygiene practices depends on a member of the community, so it becomes independent from the first intervention.

In order to encourage the sustainability of the hygiene facilitators' activity, they are not given a salary for their work. They can be given incentives such as tee-shirts or caps, or the opportunity to do some training outside the village. In some cases, the fact of being a resource for health in the village makes the facilitators feel useful, respected and recognised by the rest of the community, and this can be enough reward for them.

The roles of the Community Hygiene Facilitator:

- *Promotion of improved practices*: through their own behaviours, discussions, and activities such as home visiting. The CHF should be someone who is respected in the community so that their point of view will be listened to.
- *Monitoring and reporting*: the CHF is a window for the agency during the implementation phase and after. They can provide updates of the situation in the community in terms of diseases, adoption of new practices etc. If they are well trained, they can provide regular and good first-hand information. They can be provided with a simple reporting sheet with a table to fill in periodically (on a weekly or monthly basis) to compile the information of interest (births, deaths, number of diarrhoea cases, state of cleanliness of the water and sanitation infrastructure etc.)
- *Treatment of diarrhoea cases*: in places such as Sierra Leone, the CHFs are consulted for cases of diarrhoea. They may administer oral rehydration solution, and/or contact the closest health centre if necessary.

Choosing the Community Hygiene Facilitator

The CHF must be chosen by the community members, but there are some points that should be considered, to minimise the risk of failure:

- The CHF should be a representative of the target audience, which often comprises the poorest people in the community. Sometimes the head of the village takes the decision and chooses somebody from their family or circle of friends even if they don't have the capacity. This should be avoided as far as possible.
- In general, women are more suitable for the role of CHF. They are usually in the risk groups concerned, and they are more involved in the day-to-day life of the community.
- The CHF should be able to read and write, as in some cases they have to write a report.
- The CHF should be somebody who will stay in the community and doesn't foresee leaving. Young people with higher levels of education often aspire to leave their village looking for new horizons, so older people are often more suitable.
- The facilitator should have no link with political factions and should not be likely to take part in a possible conflict. They should be respected by everybody in the village and their opinion should be listened to by a majority of the community.
- The election of the CHF must not be done too quickly. Enough time should be allocated to this process to avoid failures.
- The most important point is that the CHF should be motivated, committed to social justice and able to demonstrate solidarity with the most vulnerable.

Training of the Community Hygiene Facilitators

A workshop can be organised to train the elected CHFs from the communities targeted by the project in order to train all of them at the same time and to allow them to exchange experiences and points of view. Usually this training takes between one and two weeks (it depends on the subjects), but this has to be adapted, depending of the availability of the trainees. After the workshop and during the ongoing programme, the agency trainers visit them periodically to monitor their activities, answer their questions, and give some advice for solving possible problems.

In some cases, when the CHFs acquire enough skills and experience, they become trainers or members of the project team.

3.7 Consolidation of the communication plan

By this stage the participant groups addressed by the safe water and environmental sanitation intervention have been chosen. The project team should know a lot about them through the research they have conducted. They know the behaviours and practices to recommend and advocate.

They know the channels and media they want to use: interpersonal for developing behaviours of most people; the mass and traditional media for modelling behaviours and giving some information; and asking influential people at all levels to give testimonials and give support for the intervention, thus establishing social norms and creating a climate for change.

It is important for the final communication plan to be a product of team effort. The process of drawing up the plan will validate the various contributions that partners and other team members have given in research, preparing plans or designing strategies. It is also a way for everyone to buy into the communication programme and to assure its smooth operation.

Pilot, Testing, and Revision

Testing is very important because the communication materials will not be got right the first time. The poster designed to show a mother washing her hands may look to the target audience like she is taking a pill, or the radio ad produced may be so funny that it distracts from the message.

Trial versions should be made of all of the material, which should then be tested. Prototype posters can be taken to a school or a health centre and people can be asked what they see in them. Small focus-group discussions with representatives of target groups can be held to evaluate tapes of radio programmes. Some members of the audience can be interviewed after the first show of a play to see what they retained. Health workers can try out materials and give feedback on their usefulness.

Once the material has been tested and revised, it is wise to start the programme on a small scale and pilot the material. It should be monitored and then evaluated, and any procedures that may seem inadequate should be revised. Then the main programme can be launched in all of the areas that have been planned.

3.8 Distribution of hygiene kits

It is possible that the target practices chosen to replace the risky ones require certain resources that are not available to the population. This is often the case in emergency situations and with highly vulnerable populations. In this case, it may be necessary to distribute items that are needed by the affected population to carry out the safe practices.

Some examples of items to be distributed are:

- *Soap*: this should only be considered in case of an emergency (distributing soap is not normally sustainable).
- *Chlorine*: it is distributed in case of cholera epidemics and diarrhoea outbreaks. It can be used for disinfecting wells or treating drinking water. As it can be dangerous when it is incorrectly used, the people who are going to handle it should be well trained.
- *Cleaning tools*: for water containers, households or water points.
- *Water containers*: adapted to the habits and needs of the people in terms of collection, handling, transporting and storage of water. It is common to distribute one container for water

Box 15.2

Example of hygiene kits distribution in Laos.

In Laos, unsafe water handling practices were found in the assessment phase. To ensure good quality of water at the household level, it was necessary for people to protect water during transport and storage and to treat it by boiling. The problem was that people had no containers to transport and store the water and no means to boil it. These elements were not available for the population at an affordable cost for them, and so a distribution of hygiene kits was decided. Evaluations carried out years after the distributions demonstrate that people started to boil their water and modified their risk practices, motivated by having the necessary resources.

The family hygiene kit included the following items:

- a nail clipper (people generally eat with their hands and share the food);
- 2 plastic buckets to fetch water to replace low capacity and unhygienic traditional gourds;
- one 60-litre plastic water container with lid to store water at home, to reduce the frequency of water collection;
- one plastic scoop with handle to collect water from the container in a hygienic way;
- one kettle to boil drinking water;
- a set of 6 plastic glasses;
- a thermos flask;
- one bar of soap and one brush;
- impregnated mosquito nets (the number of bed nets distributed per family was chosen after a household visit to determine needs. One small bed net was given as a spare for members going out to work overnight in rice fields etc.).

collection and transport (between 5 and 20 litres), and another for storage (between 30 and 100 litres). It is also possible to include a water bottle in the kit to allow people to have clean drinking water while they are working far from home.

– *Whistling kettles*: whistling kettles enable people to disinfect water correctly by boiling.

– *Filters*: if it is not possible to treat the water by boiling it due to cultural issues or lack of cooking fuel at reasonable prices, other means such as clay or sand filters (with easy and affordable maintenance) can be distributed at household level.

– *Nail clippers*: as dirty nails are an important transmission route for pathogens.

4 Monitoring and evaluation

4.1 Monitoring

The objective of monitoring is to review how the programme is being developed at all its stages, in order to improve the results.

After each session of hygiene promotion, the hygiene promoter fills in a sheet with the information concerning the place, the date, the time, the audience at the beginning and at the end of the session, their attitude (bored, participative etc.), the number of people sick with diarrhoea, the cleanliness of the water point etc. Each promoter has a sheet for the compilation of the data for one month.

Table 15 VI: Examples of monitoring different aspects of communication activities.

	Poster	Session	Media
Visibility	The poster was placed in the church and reached almost all the population	The session was carried out when the women were working in the field, and few people came	The radio programme was broadcast at lunch time, and nobody heard it
Interest	The poster was too small to catch attention	The session was so boring that half of the people left before the end	The programme was a radio series taught by a theatre group about real and common stories happening in the communities. As people recognized their own life in the stories, the audience was large
Understanding	People thought that the mosquito in the poster was the solution for malaria	The field worker used the local language and the same words and expressions used by the community	The linkman used complicated words and nobody understood
Acceptance	People think that malaria is produced by witchcraft and they don't believe the message even though they understood it	When the field worker said that diarrhoea was transmitted by faeces, people started laughing	The linkman was a very well known and respected traditional leader so the people trusted what he said
Behaviour change	Some people don't have money to buy a mosquito net	People wash their hands with soap because they spend less money on medicines	The women wanted to follow the advice, but they did not have means to put it into practice
Improvement in health	The health centre started distributing mosquito nets at very low cost and malaria decreased	People started washing their hands, but the quality of the drinking water was so bad that no improvement in health occurred	People understood the message, believed it and followed the advice, but health centres were not functioning

This information coming from the different members of the team or the CHFs feeds into a meeting with the team at the end of the month, about the work that is being done, the problems encountered and the positive points remarked.

The result of this discussion can be compiled in a table as shown in Table 15.VI.

In common with all programme aspects, health-promotion activities need to be carefully supervised and monitored. Periodic reviews will help ensure that activities are being carried out, that they are reaching people, and that they are effective. The results will allow modification of the programme to make it more effective.

4.2 Evaluation

Evaluation attempts to take an overview of the whole project and define to what extent it has fulfilled its objectives, and how and why it has fallen short of them, if that is the case. Evaluation also attempts to assess if there have been any unforeseen consequences of the project activities. While monitoring should take place from the onset of the project, evaluation takes place only after enough time has elapsed for changes to take place (see Chapter 2). This stage entails both the analysis of overall impact and the application of analysis for planning future activities.

The methods used for carrying out an assessment are also useful for evaluating the impact of the programme.

Evaluation and monitoring may overlap. It is important to monitor whether a new behaviour is being carried out and also to evaluate whether the new behaviour has changed the outcomes that were the initial concern.

Changes in practices and improvements in health are longer to achieve than changes in knowledge. Short-term evaluations can be done during the programme (monitoring) and at its end. But longer-term evaluations, some time after the completion of the programme, can also be done in order to evaluate the real impact of the activities.

5 Example: Laos

Specific objectives and results to obtain for the hygiene education activities were:

- Increased hygiene awareness and improved hygiene practices among communities in 20 villages, through village hygiene-education sessions (in the local language) and provision of hygiene kits.
- Increased malaria awareness and improved malaria-prevention practices in 52 villages through: village malaria-education sessions (in the local language) and provision of impregnated mosquito nets.

In order to achieve the expected results, the general methodology established was the following:

Needs assessment

The first step, before starting the health-education programme itself was to assess needs through a KAP survey related to hygiene or malaria-prevention knowledge and practices. The purpose of the survey was to establish villagers' habits with regards to hygiene in order to design an appropriate hygiene-education programme, responding to the particular needs of the population. Other qualitative surveys were also conducted in parallel through focus-group discussions (occurrence of diseases etc.).

Results of the assessment

- Diarrhoea and malaria were the most recurrent diseases in the villages. For instance, in 12 of the target villages where focus-group discussions were held before the start of the health-education sessions, the most recurrent disease was said to be either malaria or diarrhoea. Only in 2 of those 12 villages was another disease (coughing) said to be more common than either diarrhoea or malaria.

Box 3

Example of an evaluation in Laos.

Impact measurement of a part of a hygiene-promotion programme in Laos (2003). The results come from a KAP survey carried out at the beginning and after the end of the programme. They demonstrate changes in knowledge, practices and health outcomes.

	Result before programme	Result one year after the end of the programme	Comments
<i>Drinking water</i>			
Boiling drinking-water	22%	98%	Distribution of kettles
Using a bucket for water transport	16%	94%	Distribution of buckets
Using a gourd for water transport	58%	1%	
Using an old drum for water transport	21%	4%	
Washing water containers with soap	18%	67%	
Collecting water more than once per day	81%	13%	Distribution of buckets and water-storage containers
<i>Link between water and disease</i>			
Knowing that water can transmit diseases	37%	93%	
Not knowing how to prevent diarrhoea	83%	15%	
Doing nothing when a child in the family has diarrhoea	51%	10%	
Having at least one person in the family affected by diarrhoea during the last month	74%	36%	

- Villagers had very poor knowledge about the origin of those diseases, the means to protect themselves and the basic treatments to take (in the case of diarrhoea in children for instance).
- Even if the villagers were taught about the above-mentioned problems and their solutions they did not have the financial resources to buy the necessary equipment. For instance, 53% of people never boiled water because they could not afford a kettle, and none of the families without a mosquito net could afford to buy one.
- Therefore, to be able to have a positive impact on malaria and diarrhoea reduction, people also needed to be helped through distribution of equipment.

Design of hygiene-promotion sessions

The syllabus of hygiene-education activities was then designed, based the results of surveys. Four distinct sessions tackling different themes were to be carried out in each target village.

The themes of the four activities were:

- 1) General hygiene (hygiene when preparing meals and eating, personal hygiene, cleanliness of the environment and what to do with rubbish etc.). Distribution of nail clippers and soap.
- 2) Diarrhoea (causes, related health hazards, actions to be undertaken and means of prevention). Preparation of oral re-hydration solution.
- 3) Clean water (hazards linked with contaminated water, means of prevention, safe hygienic practices for water collection, transport, storage and consumption). Distribution of hygiene kits. Collection of a small amount of money for each hygiene kit distributed, to create a small revolving fund within the village.
- 4) Malaria (causes, related health hazards, means of prevention, actions to undertake in case of illness). Distribution of mosquito nets after inventory of needs in each household. Distribution of insect-repellent soap bars. Impregnation of bed nets together with villagers.

Educational tools and methods

As the results of health-education sessions depend mainly on the information being understood, special attention was given to the following parameters:

- The vast majority of villagers, especially women, could not speak or understand the Lao language. Hence, it was of utmost importance that health-education sessions were carried out in ethnic minority languages. This was taken into account from the very beginning of the project, and ACF recruited Akkha speakers (most of them being native speakers). Therefore no translation was required in most target villages (16 villages out of 21). As far as Kouï villages were concerned, when potential translators were not available in the village, some were hired from the target villages of the previous project (Phonsamphan village).
- Most people were illiterate. As a result, educational tools needed to be mostly pictorial and/or auditory. Hence, various educational tools including posters, game posters, card games, videos (in Kouï and Akkha ethnic languages) etc. were used.

Villagers were divided in three groups in each village (women, children and men). One distinct session was held for each group. To keep the participants' attention and stimulate their involvement, small rewards such as sweets for children, soap bars and ECHO/ACF malaria-prevention tee shirts were distributed to the most pro-active people. Moreover, educators called for testimonies and experiences to get examples of real situations and make sessions livelier.

The evaluation of the programme was carried out through a KAP survey before starting the programme and one year after its end. The analysis of the survey results was done with a simple calculation sheet. As an example, the proportion of people washing their hands with ashes or soap increased from 16% to 80% and the proportion of people boiling drinking-water rose from 22% to 98%.