Course Guide for
Disaster Management C280-BC16

Health Education and Training of Refugee Workers
Health Education and Training of Refugee Health Workers

Prepared by Peggy L. Henderson
for the University of Wisconsin
Disaster Management Center

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Department of Engineering Professional Development
University of Wisconsin–Madison
432 North Lake Street
Madison, WI 53706-1498 USA
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The identification of “disaster management” as a separate and unique profession is a relatively new idea. However, the tasks of a disaster (or emergency) manager have been around for a long time. Typically, they have been thought of as disaster relief or assistance, the activities that follow a catastrophic event. Disaster management is more than relief; it also includes a spectrum of activities aimed at rehabilitation, recovery, mitigation, and preparedness.

Emergency management is not necessarily a full-time activity. For many people in the field, emergency issues are only part of their total responsibilities. Similarly, this self-study course is designed not just for the full-time emergency manager but also for individuals who expect to be active only during some part of an emergency operation.

A fundamental goal of this self-study course and of the professional development program at the University of Wisconsin–Disaster Management Center (UW–DMC) is that disaster managers might eventually work themselves out of a job. Success in disaster management would be the elimination of root causes for disasters, including a reduction in individual and community vulnerabilities, by increasing local capacities through education and development.

The purpose of this course is to guide health care workers who have the task of selecting and training local health workers. These local workers will assist the professional staff to establish primary health care programs for refugee populations.

The programs include health education, environmental health programs, nutrition and special feeding programs, oral rehydration therapy programs, child immunization campaigns, and communicable disease control programs.

There are three units in this course.

Unit 1 “Planning Health Education Programs for Refugee Populations” covers general definitions and provides an introduction to some of the major concepts of health education and health worker training. It also discusses the organization of health education services; the techniques, methods, and materials used in health education; and the evaluation of health education services.

Unit 2 “Training Refugee Health Workers” describes the role of Refugee Health Workers (RHWs) and how to select, train, and supervise these workers. The administration, execution, and evaluation of education programs is also covered.

Unit 3 “Content of Refugee Health Worker Training Courses” contains learning objectives and topical outlines to be used in actual RHW training programs.

The chapters within each unit start with a set of learning objectives to give you an idea what you should learn in that section. At the end of each chapter is a self-assessment test that will help you determine if you have understood the section. You will be able to see how well you are progressing in your study by checking your answers against those found immediately following each test.

There are suggestions for further reading in many chapters if you would like to supplement the information in the study guide. Although you will be able to use unit 1 independently of units 2 and 3, much of the material in unit 1 will be useful in setting up and conducting training programs.

Getting Started

Before you start the course, we suggest you take the preliminary self-test on pages vii–viii to find out how much you already know about health education and training of health workers. If you find you do well on parts of this self-test, you can move more quickly over that subject when you come to it in the study guide and leave yourself more time for other sections. If you don't do very well at first, don't worry. It should become clear in time! After reviewing the answers for the preliminary self-test, study each chapter as a separate lesson, taking and reviewing the self-assessment test at the end of each.

When you have completed all the self-assessment tests to your satisfaction, you may request the final examination package. This will include instructions on how to take the test and will be mailed to the proctor you nominate.

After your proctor returns your final examination to University of Wisconsin–Extension, it will normally take 1–2 months for grading, recording of your CEUs, and preparation of your certificate of completion, for successful completion. Your certificate will be mailed to you with information for enrollment in your next self-study course.
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Christian Medical Commission of the World Council of Churches for the story “Good news from her sister” from Contact, No. 100, December 1987.


Ministry of Health–Uganda for the “Child Health Card.”

UNICEF–Uganda, for the “Example of immunization schedule reminder.”

World Health Organization:
- Table 1 from Guidelines for training community health workers in nutrition, 2nd ed.
- Pages 381–383 from The community health worker.
- “Outline of a potential problem with an immunization program to be developed into a role-playing activity,” adapted from Immunization in practice: Module 1. Vaccines and when to give them.”
Before you start the course, we suggest you take this preliminary self-test to find out how much you already know about health education and training of health workers. If you find you do well on parts of this self-test, you can move more quickly over that subject when you come to it in the study guide and leave yourself more time for other sections. If you don’t do very well at first, don’t worry. It should become clear in time!

**Multiple Choice**

*Circle the correct answer*

1. A refugee health worker refers to:
   a. an expatriate physician working with refugees
   b. a host country national working in a refugee area
   c. a member of the disaster-affected population trained in basic health skills
   d. a refugee who was trained as a health worker previous to the disaster

2. The best time to begin health education activities is:
   a. when the disaster reconstruction stage is well under way
   b. after resettlement
   c. as soon as possible, even during the emergency phase
   d. as soon as it is known how long temporary settlements will last
   e. three to six months after the disaster hits

3. Experienced health workers have identified the following as one of the barriers to effective health education in refugee situations:
   a. low priority of preventive activities
   b. shortage of educational materials
   c. inadequate buildings
   d. health workers’ lack of knowledge
   e. unreliability of electricity for film presentations

4. Storytelling requires:
   a. carefully prepared materials
   b. characters with names
   c. no audience participation
   d. an educated target group

5. Equipment used in health education demonstrations should:
   a. be the best available
   b. resemble the utensils the refugees had before the current disaster
   c. be the same as the equipment refugees presently have available
   d. be prototypes being tested for future disaster situations

6. Locally made teaching aids should be:
   a. designed by experts
   b. reproduced in large quantities
   c. natural and lifelike
   d. as technical as possible

7. One reason why the community should participate in the selection of a camp-based worker is:
   a. the worker will feel more responsible for his performance to the community that selected him
   b. that outdated Ministry of Health guidelines can be avoided
   c. camp doctors will not have to accept the blame if the program fails
   d. this process saves time

8. How could you best achieve this learning objective: “refugee health workers will be able to state the ages at which a child should receive immunizations”?
   a. practice giving immunizations at a health facility
   b. carry out a survey on immunization coverage
   c. study a teaching aid that illustrates the correct ages for immunization
   d. tell a story that shows the advantages of immunizing young children
Sentence Completion
Fill in the correct words

9. The three stages of the postdisaster period are usually referred to as ____________________, ____________________, and ____________________.

10. Camp-based workers are generally more ____________________-oriented and facility-based workers more ____________________-oriented.

True/False
Indicate T or F

11. Health program planners should keep in mind that refugee settlements are usually short-term phenomena.

12. It is best to disregard refugees' health knowledge, since almost all their traditional practices are dangerous.

13. It is usually impossible to carry out effective health education programs during the emergency phase of a disaster.

14. The Child-to-Child program aims at involving schoolchildren in health promotion activities.

15. Finding an appropriate time for a health education activity is a type of communication skill.

16. Unsolicited comments by the audience are part of feedback that can confuse the educational process.

17. A health presentation that primarily lists facts is unlikely to have the desired effect on refugees' behavior.

18. Storytelling is an antiquated health education method that has been replaced by more technically advanced ideas.

19. The health educator should decide the best place to use a teaching aid before it has been created.

20. The role of a refugee health worker has been carefully defined by the United Nations, and training should comply with standard guidelines.

21. Refugee health workers are usually motivated by altruistic feelings, and the question of remuneration rarely arises.

22. The trainer should reinforce his or her superior position over the trainees by the arrangement of the seating.

23. Good supervision widens the range of medicines a refugee health worker can properly manage.

24. One of the normal duties of refugee health workers is to distribute unsolicited donations of drugs.

25. It is best to ignore problems on a supervisory visit and focus only on the things a health worker does well.
Planning Health Education Programs for Refugee Populations
DEFINITIONS OF REFUGEE POPULATIONS

The people you train using this course, Health Education and Training of Health Workers, will be working with refugees.

? THINK: What is a refugee?

Write a one sentence definition and then compare it with our definition.

A “refugee,” in the context of this course, is defined as any victim of a long-term, slow-onset disaster or civil conflict, regardless of whether or not that person was forced to move or cross an international border.

Please note that this is a wider definition than the one contained in the Statute of the Office of the United Nations High Commissioner for Refugees, which defines a refugee as “a person who is outside his country of origin and who, due to well-founded fear of persecution, is unable or unwilling to avail himself of that country’s protection.”

MAJOR AIMS OF HEALTH EDUCATION

? THINK: What would you say are the main aims of health education?

List three or four and then compare your ideas with those that follow.
In any disaster, the specific goals of health education will vary with the phase of the disaster, the living conditions, and the refugees' level of culture and education. Health education should aim at protecting the health of the refugees by showing them:

- how to reduce or prevent the spread of disease
- how make the best use of food, water, and other limited resources
- how to maintain a hygienic environment
- how to seek out health care when necessary.

In general, health education involves teaching people how to change their behavior or their environment in order to raise their standard of health. It is important that you try to deliver health education messages so that refugees are motivated to put the knowledge gained to practical use for the benefit of themselves and their community.

**REFUGEE LIVING SITUATIONS**

Refugees and victims of famine or similar catastrophes sometimes remain in their own homes or find shelter with friends or relatives in urban squatter areas, government hostels, or boarding houses. When migrating populations are large, they may form a community in a camp, village, shelter, or settlement. We assume that refugees are usually organized into a community where they are partially segregated from the surrounding population. We also assume that they cannot return to their former home or way of life for a relatively long period.

Although we focus on an uprooted community, the information also applies to a community that has suffered a slow-onset disaster such as drought or famine, and thus has been disrupted socially and economically as much as a migrating population.

**HEALTH EDUCATION IN REFUGEE SITUATIONS**

The post-disaster period is divided into three phases:

- **Emergency (initial) phase**, when saving lives is a priority.
- **Transitional**, when efforts are aimed at repairing physical damage and helping victims recover emotionally.
- **Static (reconstruction)**, when physical reordering takes place and life returns to a more normal routine.

Because health education is often a secondary concern in the emergency phase, our emphasis is on those education and training efforts that can be fully developed in the transitional and static phases.

It is wise, therefore, to anticipate from the beginning that a settlement will be semi-permanent and plan long-term training. Recent experiences have shown that refugee settlements, once established, often remain in place for five years or more. Communities suffering from drought, for example, rarely recover quickly.

**EFFECTIVENESS OF HEALTH EDUCATION**

Health education involves teaching people how to change their behavior or their environment in order to raise their standard of health. The manner in which health information is received and whether or not the recipient acts upon it depends on the content of the message, how and by whom it is delivered, and the recipient's willingness to carry out the change indicated. These factors together influence the person's attitude: whether a change is possible, and whether it will change things for the better. Therefore, this course is about what to say, how to say it, and who should say it.

**EXAMPLES OF HEALTH EDUCATION ACTIVITIES**

**THINK: What would you consider to be examples of health education activities?**

Write down two or three answers and then compare your answers with the examples that follow.
Health education aims at improving people's lives, and generally includes subjects such as hygiene and environmental health, nutrition, child immunization, and controlling communicable diseases. Health education might in some cases discuss broader topics, such as how to grow more food or earn better wages, and thus develop a more healthy environment for the population.

**Why Is Health Education Important?**

Health education in refugee camps is especially important because it provides a way to help refugees manage stress. The refugees are thrust into a new social environment, where they must cope with insecurity, poor living conditions, and worry about their future. In addition, the situation in the settlement might change rapidly with an influx of new refugees, a rapid change of weather, or a change in the political climate.

If the refugees have moved some distance or find themselves in crowded conditions, they may come into contact with diseases to which they are not adapted, either culturally or biologically. Behavior that was appropriate in their previous environment might not prevent these new diseases, and their new behavior might not prevent familiar ones.

**Special Role of Health Education**

Health education has a special role: to explain what is new and different. Refugees in their new environment might have access to services such as a free clinic for the first time, or they might have available services which they have never needed previously, such as an agency that can trace their missing relatives. They might need to learn how to use these services. Also, refugees may no longer have certain resources, such as familiar foods. In many cases, the basic ration will consist of internationally-donated commodities, including foodstuffs that are alien to the refugee population.

**Refugees as Health Workers**

*Primary health care workers.* One part of extending health care to all members of society is to train and use Primary Health Care (PHC) workers to deliver health services at the local level. The successes and benefits of such programs have been documented in every region of the globe. These PHC workers range from professionals who receive a formal health training course of several months or years, to illiterate villagers with a few weeks of basic training. All are reinforced by supervision or brief refresher courses as necessary to maintain and upgrade their skills. Members of the refugee population are well-suited to filling the PHC role.

**THINK: Why do you think that Primary Health Care workers are so valuable?**

Make a list of some of the advantages of using these workers in a health education program and then compare your answers with ours.

It is common, in refugee and famine situations, for skilled non-local health care workers to work among the refugees. However, such workers often serve only briefly, or are over-qualified to perform the routine activities essential to maintaining long-term refugee health. This shows the value of training refugees as primary health care workers to perform the same basic health functions as a *Community Health Worker (CHW)* working in a non-disaster situation.

Trained refugees are invaluable, acting as intermediaries between the local population and the health services workers. Because they are part of the community being served, they understand the cultural attitudes and behavioral circumstances, contributing to ill health.

We use the term *Refugee Health Worker (RHW)* to refer to a CHW (*Community Health Worker*) working in a refugee or similar long-term situation. *Camp-based* is the equivalent of *community-based* in discussions of the RHW’s location.

The goals of training refugees as PHC workers in their own communities include:

- reducing dependency on international and external national health staff
- promoting the refugees’ capacity for self-care
- easing the workload of professional health care workers
• promoting community-based activities through outreach programs
• providing refugees with health skills that they can use when the disaster passes, or when they are repatriated or resettled
• helping lessen the boredom and discontent often observed in camps from the disruption of daily life.

When you begin to construct your training program, you will probably find that there are conceptual issues that you must resolve. These issues include:
• the role of the affected community
• the tasks the health workers will perform
• selecting and supervising RHWs (Refugee Health Workers)
• evaluating the RHW services.

Since every situation is different, this course cannot resolve these issues for your particular program, but you should be able to modify the standard approach to fit your situation.

The text presents information about different aspects of various issues, and illustrates how some programs have resolved them. Since there is as yet little documented experience in training refugees as CHWs, you may have to find many of your answers by working with the affected population, and by experimenting and learning.

In this chapter, you have been introduced to the concepts and terms involved in health education and health worker training within the disaster context.

Health education and the training of health workers are two important aspects of providing health services in refugee and similar disaster situations.

Health education is designed to provide worthwhile health information to refugees and to motivate them to act upon that information.

Training health workers not only utilizes existing human resources, but it permits refugees to take an active role in their own health care, providing them with lasting benefits.

**Further Reading**


The first two chapters — *Refugees: A global perspective* and *Refugee communities* — are particularly relevant.
Now that you have read about the general goals and concepts of health education for refugees, you should evaluate your understanding by completing this self-assessment test. If there are parts you are not able to answer, we suggest you go back and review the relevant material.

**Multiple Choice**

*Circle the correct answer*

1. For the purposes of this course, the best definition of a refugee is:
   a. a person who has crossed an international frontier
   b. a young person fleeing war in his own country
   c. anyone who has lost his home
   d. an economic migrant
   e. any victim of a long-term, slow-onset disaster, whether or not displaced

2. The best time to begin health education activities is:
   a. when the disaster reconstruction stage is well under way
   b. after resettlement
   c. as soon as possible, even during the emergency phase
   d. as soon as it is known how long temporary settlements will last
   e. three to six months after the disaster hits

3. Health education is especially important in refugee settlements because:
   a. refugees come from backgrounds where poor health habits are practiced
   b. malnutrition is very common
   c. health conditions and services are likely to be different in the settlements than in the place of origin
   d. everyone needs to be vaccinated
   e. additional health educators are likely to be available

4. One of the important reasons for training refugees as health workers is to:
   a. reduce the cost of the health program
   b. promote the refugees’ capacity for self-care
   c. increase the utilization of hospital beds
   d. ensure they are resettled more quickly
   e. increase the drug supply in the settlements

**Sentence completion**

*Fill in the correct words*

5. The three stages of the post-disaster period are usually referred to as __________ and __________ .

**True/False**

*Indicate T or F*

6. Victims of long-term disasters rarely find shelter outside a refugee camp.  

7. A demonstration on vegetable growing could be considered a health education activity.

8. Whether or not an individual will act upon health information depends in part on who delivers the information.

9. The major aim of health education is to provide the refugees with the knowledge they need to take appropriate actions to protect their health.

---

**Answer Key**

1. a, b, c, d, e

2. a, b, c, d, e

3. a, b, c, d, e

4. a, b, c, d, e

5. __________ and __________

6. __________

7. __________

8. __________

9. __________
Aims and Problems of Refugee Health Education

Until recently many attempts at health education in refugee communities have met with limited success. You can prevent many problems with careful planning and by involving refugees in the process from the outset. Table 1 lists some problems that have limited effective health education in previous situations.

Table 1. Problems in Refugee Health Education

- Lack of motivation among refugees and health workers.
- Lack of people to serve as instructors.
- Preventive medicine and health education not a priority with non-governmental and other agency personnel.
- Language barriers.
- Most suitable instructors in refugee population selected for early resettlement.
- Local taboos and customs.
- Content of the health messages not appropriate to the situation.
- Outsider's idea of a health priority not the same as the refugees'.
- Refugees more interested in curative medicine.
- Lack of coordination between agencies.


The first step in planning health education is the assessment of the refugees' knowledge, attitudes, and practices with regard to those topics which are considered essential to protect their health. Cultural factors may become apparent at this stage. For instance, the refugees might already know which foods are beneficial for weaning children, but may not use them because of limited resources or conflicting cultural beliefs. An outsider may be ignorant of the treatment of children with diarrhea with herbal teas.

An aim of health education is to help people to recognize and alter potentially harmful behaviors. Refugees should be encouraged to maintain healthful behaviors that already exist. The planning process should include finding out what the refugees know and do, and discovering what possible deficiencies exist that can be overcome with health education.

The Health Education Needs Assessment

In the emergency phase of a long-term disaster, the best way to assess knowledge, attitudes, and
practices is to talk to refugee leaders, observe their behaviors, and gather information from people who have carried out health programs among the refugee population. The more that refugees are involved in the planning process, the more relevant the education will be. Topics will be socially and culturally acceptable, and it is more likely that suggested behavioral changes will occur.

If time allows, quantify your assessment with numbers. For example, a survey was carried out among displaced Afghans in Pakistan before implementing a training program. It is unlikely in most cases that a formal survey of knowledge, attitudes, and practices will uncover information that could not be derived from thoughtful discussions with key members of the affected population, plus qualitative observation of camp or village life.

After preparing the educational needs assessment, the planners of the health education program should discuss the findings with community leaders to determine how to apply the results. A summary report should be prepared and used by trainers to plan individual health education sessions. The report can also document the baseline condition of refugee health and health practices; this baseline can be used later to evaluate the impact of the education program on the refugees' behavior. The report should also be made available to those working with similar populations.

**Observation, Interviews and Documentation**

**Observation**

The most obvious, but not necessarily the easiest, method of collecting behavioral information is through observation of the activities of the target population. You may find the following guidelines provide some useful information about collecting meaningful data.

*What and how to observe.* Decide in advance what to observe and how to do so in an unobtrusive manner. For example, refugees may not be using the latrines because separate latrines for different sexes or age groups have not been provided at a distance which is culturally acceptable, or because they are built in a way which is frightening to children. One could observe who uses the latrines and when they use them; for example, are they used only by men early in the morning, or only by women who live nearby?

*When to observe.* Observing at the wrong time can give the wrong impression about a problem. Latrine usage in mid-afternoon when people are resting after the mid-day meal will probably be different than at dawn.

*Objectivity.* Accurate observation and impartial reports are very important. For example, it is more objective (and therefore more useful in planning) to state that there was no maize available for the next day's meals in about one-half of the twenty homes visited, than to say that the refugees were about to starve.

*Individual habits.* Some refugees wear charms or symbols which show their beliefs or customs. Also, health workers may observe other clues that traditional medicine is being employed by patients before or instead of attending health facilities.

**Interviews and Discussions**

The interview is a method of collecting information in which someone who wants information (the interviewer) talks with people who can supply the information (the interviewees or focus group). The success of the process depends on interpersonal skills and respect for cultural norms, such as the gender of the interviewer or the time of day. If interviewees do not trust the interviewer, they will not talk freely and may give false information. They may also reply inaccurately if they see some benefit in doing so, even if the benefit is simply having the interviewer leave sooner. The interviewer should therefore make sure the refugees know who he is and why he wants to talk to them.

An interview can take place anywhere—a formal discussion with a group at a feeding center or food distribution point, a meeting with a refugee leader to discuss a community problem, or in a refugee's home. To overcome shyness, or out of respect for cultural norms, women often need to be interviewed away from the presence of men, including husbands and relatives. In either case, the interviewer must have a clear idea beforehand about what information is needed, which questions to ask and in what order. Outlining a list of questions, and practicing them with colleagues first, will help the interviews to run more smoothly.

If you use a translator, impress upon this person that questions must be phrased accurately. When asking very specific questions, translating them in advance into the local language and then back into the original language to ensure that the questions are being stated as planned.
Records and Documents

Written documentation from similar disasters often provides useful information quickly. Most organizations keep records and reports of their activities. Reviewing these can reveal potential health problems. For example, records may indicate that certain diseases exhibit seasonal peaks. Educators can then plan preventive actions with appropriate lead-times. Other useful records include recent host country health statistics, scientific papers written about the area from which the refugees came and newspaper articles.

Identification of Topics and Learning Objectives

The educational needs assessment and your knowledge of potential and actual health problems will determine the topics presented in the health education program. The topics should be limited at first to issues directly related to current living conditions so that the refugees see the relevance of the message. Later on, topics can be expanded to include broader issues that will be helpful as the disaster is resolved.

The use of written objectives for each health education session focuses your efforts on selecting important content, provides an outline for the session, and serves as the basis for evaluating the instructor. The instructor can also use the objectives as questions for a summary discussion at the end of the session.

A list of topics follows which you may wish to incorporate into your educational program. We have divided the subjects into those which would be suitable to examine during the emergency phase and those for discussion during the transitional and static phases.

There are also examples of learning objectives which are directly related to the educational topics. You may not be able to use these particular examples, but they should provide you with an idea of how to relate the learning objectives to the topics under discussion.

You may find that the refugees can absorb the information more easily if the number of topics is limited. One or two topics at a time, based on current health problems, are probably sufficient. For example, there could be a campaign to promote immunization for two weeks, followed by an ORT campaign for two weeks, and so on.

Emergency Phase Topics

Health education in the emergency phase will mostly involve setting down "rules" for camp life and/or use of disaster services. If the rules are culturally appropriate and sensitive, they are more likely to be observed. Some good topics and objectives for the emergency phase are:

Nutrition

Possible topics: Frequency of food distributions, special food for high-risk groups (pregnant women, infants, or young children), locally acceptable ways of preparing new foods, importance of monitoring children's growth, adding vitamin A or iodine to the diet.

Example of learning objective: All guardians of young children will be able to name signs of undernutrition that indicate the child should be screened for supplementary feedings.

Water and personal hygiene

Possible topics: Location of safe water distribution points, bathing places, hours of operation, quantities available, benefits and risks of different water sources, advisable water treatment, value of regular bathing and hand washing.

Example of learning objective: Mothers will be able to identify and use the safest available water point within their sector of the camp or community.

Sanitation

Possible topics: Location of latrines or other communal sanitary facilities, reasons why all residents should use them, garbage collection facilities and the importance of a clean environment, frequency of and participation in camp or community clean-up campaigns, how to dispose of feces and other wastes safely and why it is necessary.
Example of learning objective: Refugees will be able to name three important diseases that may spread if some camp residents fail to use the latrines provided.

Health services

Possible topics: Types of health services available, when they should be used, special clinics for mothers and children, oral rehydration centers, immunization campaigns, how and why to report births and deaths.

Example of learning objective: Mothers will be able to state where the nearest oral rehydration center is and under what circumstances to take their children there.

Health information

Possible topics: The importance of reporting births and deaths to the relevant person in the settlement; why certain illnesses are subject to obligatory notification to health authorities.

Example of learning objective: Heads of families will be able to name the person to whom they should report a case of dysentery suspected to be cholera.

Transitional and Static Phases

As refugee mortality and morbidity rates drop to those of surrounding communities, and regular food and water supplies are established, educators can devote more time to promoting the long-term impact on the health and welfare of the affected population. In addition to the topics that should be covered in the emergency phase, additional subjects include:

Nutrition

Possible topics: Growing healthful foods on open ground in the camp (where applicable), how to provide a balanced diet for a family, and benefits of breast-feeding and dangers of artificial feeds and feeding bottles. If feeding bottles or powdered milk have been introduced, additional topics might include a discussion of the benefits of breast-feeding, and how to help a woman start or improve breast-feeding.

Example of learning objective: Mothers will be able to name several combinations of available foods that provide a balanced meal for young children.

Personal health care

Possible topics: The need to continue drinking and eating during illness; the need to take medications (especially antibiotics and anti-malarials) in the quantities and for the time prescribed; compliance with long-term treatment regimens for tuberculosis; risk groups requiring iron or other dietary supplements; possible dangers and waste of resources due to self-medication and reasons to avoid ineffective or harmful drugs available on the black market.

Example of learning objective: Participants will be able to state why a child needs extra fluids when ill.

Immunization

Topics: The value of immunization and the need to complete the vaccination schedule.

Example of learning objective: Mothers will be able to state which diseases are prevented by immunization, and at what age their children should receive each vaccine.

Treatment of diarrhea in young children

Topics: Importance of liquids when children are afflicted by diarrhea; how to mix an oral rehydration solution in the home using packets of oral rehydration salts (ORS); how to mix an oral rehydration solution using locally-available ingredients.

Example of learning objective: Participant will be able to mix a solution for the treatment of dehydration using ORS or locally available ingredients.

Chemoprophylaxis for malaria

Topics: Need for prophylaxis (the prevention of or protection against disease) for some of the affected population; where to obtain anti-malarials.

Example of learning objective: Pregnant women will be able to name the reasons why they should take chloroquine tablets regularly as prescribed.

Personal hygiene

Topics: Importance of hand washing and keeping flies away from children's eyes.

Example of learning objective: Mothers will be able to state why they must wash hands before preparing food.
Control of vectors and animals

Topics: Identify vectors (disease-carriers) and breeding sites; camp guidelines to control animals.
Example of learning objective: Adults will be able to identify and eliminate possible mosquito breeding sites near their huts.

Sexually transmitted diseases

Includes AIDS, where applicable.
Topics: Disease transmission and symptoms; where to go for treatment.
Example of learning objective: Male camp residents will be able to state three ways of preventing the spread of sexually transmitted diseases.

Food sanitation in the home

Topics: Safe food storage; how to make a covered water container from a food distribution can.
Example of learning objective: Women will be able to identify three situations in their homes where food can become contaminated, and state ways to prevent each.

Accidents

Topics: How to prevent and contain fires, why cars and trucks are dangerous and why children should not play near roads.
Example of learning objective: Participants will list the actions to take if a fire breaks out in their building.

Health information

Topics: Reporting changes in family structure through migration; registration of pregnancies for pre-natal care.
Example of learning objective: Women will be able to name the reasons why they should tell health workers when they think they are pregnant.

Locations of Health Education Activities

Emergency Phase

During the emergency phase, opportunities for organized health education are limited, but it is still possible to discuss urgent issues with refugees. The most important contact point for promoting health is at the point of entry into the camp, or the place where refugees register for disaster relief services.

Where admittance is a formal process (for example, in those camps where refugees must register for food or be assigned a place for a hut), you can make contacts on an individual basis. When a refugee receives a ration ticket, explain how to prepare new or unusual foods so they supply the greatest nutritional value. Weigh and measure small children, and give the child’s parents a Child Health Card (see Figure 1) to record future weights and vaccinations received.

Figure 1. Child health care card from Uganda (front and inside)

[Image of a child health care card from Uganda]
Instruct mothers when and where to bring their children for infant health clinics. Verify the immunization status of children and of women of child-bearing age, and immunize on the spot when necessary. Explain the schedule for other vaccines. Finally, the point of entry might be an appropriate place to administer an initial prophylactic dose of Vitamin A.

As valuable as this first contact is, new refugees may be in poor physical and mental condition and unable to follow through on the information they receive. In this case, keep health education messages simple and brief, and visit the new refugees within a day or two after their immediate physical needs have been satisfied. Also, if many of the refugees are literate, distribute written materials that they can read later. For non-readers, culturally appropriate illustrations can serve the same purpose if you explain their meaning when distributing them. Figure 2 shows this type of immunization schedule distributed by UNICEF.

In the emergency phase, religious or political groups may be organizing in the refugee community. In many situations, the early establishment of schools by these groups as an emergency measure has had the excellent side effect of serving as a good location for distributing health information.

**Transitional and Static Phases**

Once the emergency phase is over, and new refugees are no longer arriving daily, you can consider other locations for education. Nutrition centers, clinics, and schools are possible locations.

In most disaster-affected settlements, food distribution continues into the static phase—either basic rations for the general population, or supplements for particular high-risk groups. The nutrition center provides the best opportunities for identifying nutritional problems and discussing their prevention and control. It is also an ideal location to monitor each young child’s growth on a Child Health Card, and to discuss how the child is progressing. Similarly, demonstrations of how to use unfamiliar foods are best carried out at the point at which the foods are distributed. If the nutrition center serves the majority of the settlement’s young children, it is the logical location for sessions on treating diarrhea, vaccination schedules, and other preventive health measures.

The waiting rooms of health facilities often provide opportunities for health education, especially for mothers waiting for young child clinics or antenatal care. Health facilities are especially good places to demonstrate how to mix oral rehydration drinks, and to remind parents of vaccination schedules. The drink may be demonstrated on a child with diarrhea (see sample leaflet in figure 3), and children whose immunizations are not up to date can be vaccinated on the spot, reinforcing the message of the talks.

Most settlements have schools, some established by religious groups, such as the Koranic schools among Islamic populations. Integrating basic health messages into the curriculum of the schools can motivate students to protect their own health and that of their siblings. Often schools teach pupils of all ages, thus reaching older children who will soon be adults (and parents) themselves. Holding classes outside, or in a building with many openings, encourages community members with little else to do to observe health presentations going on in the class.

When selecting a location, the educator should be aware of any organized political and religious groups which may have a strong influence on the refugees. These groups often have community meetings which are excellent places for health education, with the added value that the group is seen as endorsing the messages.
Many of the health topics listed in the previous section are highly suitable for school children. In particular, they should be taught how and why to safely dispose of the feces of their younger siblings. Schoolchildren should be encouraged to set an example by using latrines in the school, washing hands afterwards, helping to keep the school yard clear of refuse, and so on. Since many schools lack books or supplies, teachers are likely to welcome any materials dealing with health topics that they can incorporate into lessons or use to decorate the classroom.

**CHILD-TO-CHILD ACTIVITIES**

Schools provide suitable arenas for the organization of Child-to-Child activities. Child-to-Child is an international program designed to teach and encourage school-aged children to concern themselves with the health of their younger brothers and sisters. The students learn simple preventive

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**Figure 3**

Example of a leaflet to remind mothers how to mix oral rehydration solution.

Produced by Control of Diarrhoeal Programme, The Ministry of Health with assistance from UNICEF/Uganda.
and curative measures appropriate to their age and location. The objective is for school children to pass on what they learn to other children and their families. Child-to-Child produces activity sheets on various topics which can be adapted with the help of local school teachers and then used as the basis for daily or weekly health lessons. These activity sheets are available from Teaching Aids at Low Cost (TALC). See the Resource Section at the end of this text.

**Potential Health Educators**

Ideally, all health care providers should promote health education at every available opportunity. Thus, a doctor should do more than evaluate a patient's condition and prescribe a treatment. The doctor should also explain to the patient how the disease spreads, how to avoid a repetition of the illness and how to prevent contamination. A health worker who weighs a child should not only record the child's weight, but also explain to the mother whether or not the child is growing well, and suggest ways to keep the child healthy. In practice, health workers in refugee situations often claim they are too busy to carry out educational activities, so the first goal to attain is the education of the potential educators.

In addition to formal health workers, almost anyone in contact with the refugees can serve as a teacher. Traditional healers and birth attendants may be more effective health educators than formal health workers since they are familiar with the beliefs and customs of the affected community. Similarly, tribal chiefs, elders, and political and religious leaders may exercise influence because of their positions. Host country administrators, interpreters, and professional teachers are often well-respected sources of advice, as well as members of host country non-governmental organizations, women's groups and mothers' clubs. Community health workers (CHWs) make excellent educators because they share a similar background with the refugees, understand their problems, and are trained to help fellow refugees improve their health.

The effective presentation of a message depends not only on the presenter, but also on the means of presentation. The ability of an individual to communicate with a group can be limited by many factors, such as age differences, social or economic inequalities, language and vocabulary variations, and conflicting attitudes or beliefs. You should take these factors into account when selecting educators.

**Further Reading**

Some parts of this chapter are adapted from *Training Course for Instructors in Combatting Childhood Communicable Diseases: Community Health Education*. Centers for Disease Control, 1986, Atlanta. You may find this useful supplemental reading.
Now that you have read about the planning of health education activities, you should evaluate your understanding by completing this self-assessment test. If there are parts you are not able to answer, we suggest you go back and review the relevant parts of this chapter.

**Multiple Choice**

*Circle the correct answer(s)*

1. Experienced health workers have identified one of the following as a barrier to effective health education in refugee situations:
   a. low priority of preventive activities
   b. shortage of educational materials
   c. inadequate buildings
   d. health workers' lack of knowledge
   e. electricity unreliable for film presentations

2. Which would be the best source of information about the usual weaning practices of a refugee community:
   a. speaking with a nurse from the nearby capital city
   b. newspaper articles
   c. observation of a mother who is asking for milk for her child
   d. an interview with the head of the food distribution committee
   e. observation of mothers' habits during informal home visiting

3. Child-to-Child refers to:
   a. supplementary feeding programs
   b. the Child Health Card
   c. a system for passing on health materials from family to family
   d. a program where school-aged children learn health messages to share with their younger siblings

*Fill in the correct answer:

4. Indicate which of the following topics would be better approached in the emergency (E) or later (L) stages of a disaster.
   (a) ___ Family planning
   (b) ___ Location of defecation areas
   (c) ___ How to obtain basic rations
   (d) ___ How to build a covered water container
   (e) ___ Where to report births and deaths

**True/False**

*Indicate T or F*

5. A health education needs assessment evaluates the refugees' knowledge, attitudes and practices through standardized, quantitative methods.

6. Schools are not an appropriate venue for health education messages because only school-aged children who are not yet parents can be reached.

7. Health education is too important a topic to be left to someone who is not formally trained as a health educator.

**Exercises**

8. The topic of a health presentation to heads of refugee households is the location of safe water sources. A possible learning objective for this session would be: *At the end of the presentation, heads of households will be able to:

9. List some traditional customs, beliefs and practices in a specific refugee community that you are familiar with, or think of some that exist within your own community. Classify them as to whether they are likely to be beneficial, harmful or neither. Among the harmful ones, decide which ones are likely to affect the community's health, and which will affect only the individuals concerned.
The Major Elements of the Communication Process

The major elements involved in all communication are the source of the communication (the sender); the message; how the message is sent (the channel); the destination of the message (the receiver); and the understanding they achieve (feedback).

The sender
Always be objective. Do not let your own likes and dislikes bias the health information you hope to communicate. For example, someone who has recently discovered that soybeans are "the answer" to nutritional problems may not give a very balanced talk on child nutrition.

The message
A message requires appropriate content, style, and proper timing. For example, people with no formal education will not understand a talk on controlling a disease given in clinical language, and teaching a mother how to prepare a weaning food with eggs will not mean much to her if eggs are not available.

The channel
A prepared message can be seen, as in a poster or pamphlet; it can be heard as in a tape recording; or it can be both, as in a film or television. You can combine prepared messages with your own presence in a field demonstration, or use models and samples that the receivers can smell, touch, or taste. Communication is more effective when you use more than one channel.

The receiver
Each receiver, or member of a group of receivers, is different. Each has an individual set of goals and expectations. Each is influenced by a particular set of life experiences. These factors determine whether the receiver will resist the change or adopt the new behavior carried in the message.

Feedback
Successful communication is a two-way process between sender and receiver. The receiver should listen and respond to the message, and the sender should watch for a reaction and response. If the message fails to evoke a response, the sender must adjust the content or style of the message, send it again, and then watch for a positive response. Communication fails if the sender and receiver do not achieve this understanding.
COMMUNICATION SKILLS

The following guidelines may help improve your communication skills.

Be clear. The goal of communication is to make sure that the receiver understands the sender's message. Therefore, it is important to speak or write this message clearly and simply in everyday language. Present important points in a logical order to prevent confusion for receivers.

Find an appropriate time. Communication will suffer if either the sender or receiver is upset or distracted. If the receiver is unhappy about the content of the lesson, adapt it to fill the need. If the receiver has a problem that is temporarily more important than health education, change the schedule to accommodate the person.

Use simple language. Many words in health care, such as immunization, disinfection, or hypertension, are unfamiliar to the public. Often, such terms cannot be translated. There are usually simple words in common use for these terms, and many diseases have local names. A health worker who knows the local dialect and customs is able to communicate easily with the target population.

Keep each session brief. A long presentation will bore people, and they may miss the point or forget the message. Try to keep each presentation to about ten minutes. Watch how the audience reacts to a presentation. If they are bored, irritated, or confused, you can open the session for discussion, have a short break, or switch methods.

Use appropriate teaching aids. A method that is strange to the audience might not communicate the intended message. When educational aids such as posters, cartoons, films, and photographs are used to communicate, it is necessary for the refugees to be familiar with those methods. All words used—written or spoken—should be clear and simple. For example, with most audiences, it is better to use the local informal word for feces rather than a more polite and obscure synonym.

Pay attention to responses. Communication involves both sending and receiving. After you send your message, you should then listen carefully to understand the ideas expressed by the members of the audience. Welcome their comments and encourage them to speak freely, without interruption. Treat the people as you would want to be treated.

Discuss and clarify. A follow-up session helps you to determine what the refugees have learned, and it helps them to determine what you really wanted to say. Have a few questions planned to start the discussion.

Summarize. Brief summaries both after the session and after the discussion will help to fix the ideas in the minds of the audience.

PRACTICAL USE OF COMMUNICATION SKILLS

In addition to the content and the presenter of a health education program, the selection of an appropriate teaching method is also very important. The choice of health education methods depends on the group size, its culture, the problems being addressed, and the resources available.

This is a list of factors which will vary, according to each particular situation, and may affect your choice of the most suitable teaching method.

Group size

Individuals can be helped through private counseling, for example, by motivating a refugee to stay with a medication schedule. Groups of 10-15 people can be reached with talks or slide shows, discussions, demonstrations, or practical sessions at a nutrition center or school. Reaching the whole community or a camp sector may require a full-scale education campaign involving house-to-house visits, loudspeaker broadcasts, and making announcements at the meetings of political organizations or religious groups.

Problems to address

We have already discussed the importance of assessing the current knowledge and beliefs of the refugees before selecting topics and objectives. Some reasons why health problems occur, and some educational methods to deal with them include:

- Lack of awareness or information. Overcome this through health presentations, radio programs, or posters. An example is advising pregnant women when and where pre-natal clinics take place.

- Conflicting cultural values or difficulties in making decisions. Approach this through individual or small group counselling. For example, you might advise a father that his child would benefit from supplementary feeding, so he should allow his wife to travel to the nutrition center with the child.
• Lack of specific skills. Provide these through demonstration and training. Refugees may be wasting a food that they do not know, and you can teach them to prepare it so that it tastes like a more familiar food.

Need for social support to achieve positive behavior

Promote this through group discussion, family counselling, or involving a concerned community member. For example, a respected elder might be asked to advise a younger refugee to remain in the camp to complete a course of treatment for tuberculosis.

Available technology and resources

Certain communication media depend on high technology, energy supply or transportation, which might not be readily available. Even if sophisticated resources are temporarily available in a refugee settlement, it might be better to use a simpler approach that can be replicated when the refugees return home or when the community is left to its own resources.

Local culture

Methods of communication must be acceptable to, and understood by, the refugees. People who are not familiar with photographs, or who use them only to remember friends and relatives, might not see any educational message within a photo. Similarly, cartoons, especially caricatures, are often misunderstood. People who think films are only for entertainment may watch an educational film, and miss its point. Group discussions that encourage everyone to speak out may not be immediately successful in cultures where only men or political leaders usually speak. Choosing appropriate methods of communication, and knowing how to make them more understandable and culturally acceptable requires careful study of, and consultation with, the refugee community.

Some of the more effective methods of health education build on traditional means of communication, such as proverbs, fables, shadow puppet shows, festivals, songs, and dramas. If such methods are familiar to refugees, they will readily listen and understand the message. These methods also give local artists and leaders an opportunity to become involved in providing health education.

Community action

Achieve this through mass-mobilization efforts. A camp or community clean-up campaign can be organized by enlisting the help of refugee leaders, holding sector meetings, distributing posters in schools, and broadcasting on loudspeakers. The following example shows how one refugee community conducted a mass campaign using various methods.

Community-wide Clean-up Campaign

A health education program on Pulau Bidong, a small island in Malaysia, went a long way in incorporating ideas of community participation. There was a major problem with refuse disposal, and a significant population of rats, to the extent that the rats clearly outnumbered the human population of about 13,000. Staff were very concerned about the potential health problems the refuse created both because of the rats, and the large numbers of flies everywhere. The rats were a great nuisance to everyone—destroying people's food supplies, and waking them at night as they ran around, and within, the huts. An expatriate engineer and his refugee counterpart therefore organized a rat control and general clean-up campaign, involving the entire island population. The refugee camp administration helped with the logistics of the operation, while a songwriter composed a song about killing rats and keeping homes clean that was repeatedly played on the loudspeaker system. The popularity of the campaign resulted in the killing of thousands of rats, the clearance of the refugee camp, and the maintenance of an improved level of camp hygiene by most people.


Different methods are appropriate for various situations, and a carefully selected combination of methods is necessary for developing a comprehensive health education program. At all stages of a refugee or similar disaster, health presentations, which include various educational materials, are useful. Such methods as story-telling and demonstrations may brighten up the camp or community atmosphere. Individual counselling might be necessary in the emergency phase until refugees are organized, but it might be more effective in the transitional and static phases, when health workers have been trained and more personal attention is available.
Now that you have read about the elements of effective communication that are required to transmit information about health education, we recommend that you evaluate your understanding by completing this self-assessment test. If there are parts you are not able to answer, we suggest you go back and revise the relevant parts of this section.

1. Match each name to the appropriate description:

   channel    feedback
   sender     message    receiver

   _______ a. person who is communicating
   _______ b. what is said
   _______ c. person to whom something is said
   _______ d. what understanding is achieved
   _______ e. how the message is sent

**Sentence completion**
*Fill in the correct words*

2. Successful communication is a two-way process in which both the _______ and the _______ should be involved.

**True/False**
*Indicate T or F*

3. There is usually only one obvious channel of communication that should be used in particular circumstances.

4. Using synonyms for technical words may confuse an audience with little formal education.

5. If an audience appears bored, the educator should try to find out why and change teaching methods or take a break.

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**Exercise**

6. Describe an ideal health education session in which you used the communication skills discussed in this section. For example, if you were giving a presentation to displaced persons about foods for young children, you could talk about the appropriate foods available in the ration, etc. Make a list of the questions you might ask to promote discussion. Write down what you would say to summarize the session.

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**Answer Key**

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PRESENTATIONS

A health presentation should be more than a list of facts. People often need more than information to motivate them to modify a health behavior or participate in the protection of the community environment. You may find it effective to include a variety of methods in your presentations so that your audience will gain knowledge, skills, and motivation.

Common Elements

The following elements are common to all health education presentations and should be taken into consideration in order to have a successful session.

Audience. The interests of your audience should be borne in mind when you are planning a presentation. Many health topics can be addressed to all the members of a family, but if you are at a pre-natal clinic, it would be effective to talk about something of interest to pregnant women.

Subject matter. It is usually most effective if one topic is covered at one session.

For example, a presentation on nutrition could discuss the preparation of just one new or unusual food. Just enough material should be presented for the audience to understand and remember after one talk.

Presentation of objectives. Make sure your audience is aware of your objectives, whether you want them to change a mode of behavior or gain some particular knowledge or both.

For example, a learning objective might be for the mothers of small children to know when and where to go for immunizations, while the behavior you want to encourage is that they will actually go.

Repetition. By using a variety of visual aids or methods that repeat the message, you are more likely to impress your audience with the information you are trying to teach and to reinforce their learning.

An example of repetition would be to show a poster of a mother giving her child fluids to drink during an attack of diarrhea. Next, a story could describe a mother preparing the drinks for her child. Third, group discussion could bring out ideas from the audience about traditionally-used fluids and which ones can be made with camp rations or locally-available plants.
Time and place. The presentation should not take more than about 10 minutes, leaving time for discussion and questions. People get bored if the presentation goes on too long, and they may miss important points if their attention wanes.

The specific time chosen to conduct health education is also critical. For example, a presentation should take place at the beginning of a clinic when the audience is most lively and attentive. The time for a talk with a men’s group should be scheduled when most of them are in the camp. School teachers should be consulted to find the most appropriate time to talk to students.

Choose the most convenient location for the audience. The location should be easy to reach, comfortable, roomy, well-lighted and ventilated. In a refugee camp with few buildings, a quiet, shady spot under a tree with a few mats to sit on may be as appropriate as anywhere.

Presentation Techniques
These ideas about how to present information may be useful to you.

Practice. It is always advisable to practice a presentation in advance. Some preparatory steps include making a detailed outline of the points to be covered, deciding which materials to use and gathering them together in advance, and practicing the whole presentation with a colleague. Determine if your presentation is too long, if the materials are clear, and if the content is correct.

Involvement. People learn more from a presentation when they are personally involved. Therefore, when appropriate, begin a presentation with a song, prayer or joke in which everyone can participate. After introducing the topic, give the audience a chance to say what they already know about the subject, thus contributing to the presentation. This initial discussion helps clarify local beliefs, and identifies where the group already has strong knowledge.

Ask questions as you present facts. When showing a poster, ask for critical comments to find out if its content is clear. After telling a story, ask for opinions from the audience. When demonstrating a skill, make sure all participants have a chance to practice. Find ways for refugees to present examples and experiences relevant to the topic. This sort of involvement is much easier to achieve when the group is small: 10-15 people.

The audience’s reaction usually shows if people are interested, attentive and involved. Silence does not necessarily mean agreement or understanding.

It often indicates that the audience is confused or bored. If so, changes can be made to liven up the next presentation.

Storytelling in Health Lessons
Stories give information and ideas, encourage people to reflect upon their attitudes and values, and help refugees to decide for themselves how to solve their problems. Story-telling is an effective method of health education, especially for semi-literate and illiterate refugees. Stories make ideas concrete. Since health is an abstract idea, it is sometimes easier to understand in the context of persons and places. Told properly, stories use familiar surroundings which begin where people are, and move them on to where they need to be. A story told very simply leaves the listener to fill in the details, evoking a level of participation which promotes behavioral change.

No special materials are required to tell stories. They do not need to be stored, and they are not subject to wear and tear like posters or booklets. They can be presented to a large group as dramas. Since they can be fun to perform and easy to remember, they can be repeated in contexts other than health education, such as when a school child repeats them at home.

Here is an example of a story with a clear message about health education.

Sample Story

Good News from Her Sister
Dija and Habu were a farming couple who lived in the village of Gardama. The custom there was to draw drinking water from the nearby spring and to defecate in any field near the house. Even though some government workers had told them they should be more careful with their sanitation, the spring was clean and they had no neighbors nearby, so they did not believe that the occasional illnesses they or their children suffered were due to these practices.

One year a drought hit Dija and Habu’s village. When their food supplies ran low, they moved to a larger village several miles away where they had relatives who could help them, and where they were told there would be government assistance if the situation became worse. They kept their habits of collecting water from a nearby source, although it wasn’t nearly as clean as their spring at home. They also continued to defecate in open space near the village, but noticed that many other people used the same space also.

Thankfully, Dija and Habu and their children somehow managed to get enough to eat through the drought period. However, one of them developed runny stools after they had moved, and his body became weak. Next his skin became loose, and the soft spot on his head sank in. Neighbors told Dija to stop nursing and buy some kapectate at a medicine shop, but it didn’t help. She didn’t go to the village clinic
because she wasn’t used to having a health facility nearby. The child finally died.

Later, Dija and her husband also developed abdominal pain and diarrhea with blood and mucous. After a time, they became weak and began to lose weight. They noticed that this was a frequent problem among people in their relatives’ village.

One day, while Habu tried to help his relatives work, Dija went to collect water. But she was too weak to lift the full pot to her head. Her sister, Kubili, who was visiting on the way back to her home village, saw her from the road above and ran quickly down to help. Dija told her of the chronic diarrhea with abdominal cramps. With alarm Kubili cried, “You are so weak that even your eyes are sunken.”

While visiting, Dija’s sister told the couple how she had learned from a refugee health worker that tiny germs were spread by flies from the stool passed in the open fields to people. When they put their hands in their mouths, children could swallow these germs and develop diarrhea. Kubili also told how the people in her village had reduced this problem by building and using latrines to defecate. While traveling in the “bush” they carried a hoe and buried their feces. They also learned to wash the germs from their hands after defecating and before eating.

While Kubili was there, one of Dija’s other children developed diarrhea. Kubili showed Dija how to prevent serious complications by mixing a 4-finger spoon of sugar and a 3-finger pinch of salt in a large glass of boiled water. Then she gave the mixture to the child with a spoon as soon as the diarrhea started. She gave the child all he would take between breast-feedings. Before she left for home she told Dija to keep giving the mixture as long as the diarrhea continued, but warned that if fever or bloody stools developed, or if the diarrhea didn’t stop in a few days, she should take the baby to the nearby dispensary. “By the way,” she said before leaving, “the same mixture is good for children and adults with diarrhea, too.”

Dija continued to give several glasses of the mixture to her baby, and eventually the diarrhea subsided. Dija was amazed at how the child continued to smile and play.

Before they returned to their home village, Dija and her husband dug a latrine on their relatives’ compound and urged their neighbors to do the same, and then dug one at their own home. They later worked together with their own community to surround with rocks and cement the nearby spring, so its water remained clean for drinking. From then on there was much less diarrhea in the village and, even when it affected the babies they recovered nicely, thanks to the mixture Kubili had taught.

The characteristics of an effective story include:

**Credibility.** The people in the story should have names, should do the kind of work that people in the refugee camp or disaster-affected area do, and their actions should be culturally acceptable.

**Brevity.** Like other health education activities, a story should take no more than ten minutes to tell, otherwise people will become bored and may miss the message of the story.

**Clarity.** The point should be obvious from the descriptions of the action in the story, so that listeners have a clear basis on which to form their conclusions.

As with other presentations, a story should be followed by a discussion and questions which encourage people to think about the story and talk about the various points which impressed them, without telling them directly which character followed the most correct course of action.

You can present an entire story, with the characters complying with the message you want to convey; or you can present part of a story, and then ask the audience what they think the characters should do to resolve the situation.

You can also suggest the outline of a story, and then let the audience act it out in their own way, in which case it becomes more like role playing.

**ROLE PLAYING**

Role playing is closely related to storytelling, but instead of one person telling a story, different members of the audience act out the different parts. The “actors” can be chosen and rehearsed beforehand, in which case it becomes more like a proper play, or you can ask for volunteers from the audience and briefly outline the theme and the characters on the spot. The elements of believability, brevity, and clarity apply equally to role play as to storytelling. It may be more difficult for an inexperienced educator to keep the role play to the desired theme and help the audience draw relevant conclusions, but this method is often great fun for the audience. In pre-planned role-playing, some props and/or costumes may be desirable.

Adapted from a sample story by a Lardin Gabas teacher, reprinted in *Contact*, Published by the Christian Medical Commission, No. 100, December, 1987.
Outline of a potential problem with an immunization program

The supervisor of the immunization activities in a community with many displaced persons noticed that one of the immunization teams that was carrying out an accelerated program gave more first doses of DPT vaccine than any other team. However, the dropout from first to second and second to third doses was very high. The supervisor accompanied the team on one visit, watched the vaccinators working, and talked to some of the local people, including village leaders and spokesmen for the displaced. She found out the following: The vaccinators worked very hard and efficiently. They lined up all the children and immunized them very quickly, so that they could finish by 11 o’clock. They could thus complete their records, clear up, and not have to work outside during the hot part of the day. They were careful not to waste time talking to the mothers. The local leaders said that sometimes the injections made the children ill, with fevers, so many mothers were afraid to take them back for another dose.

Through seemingly casual, but carefully directed, conversations with some of these leaders, the supervisor concluded that mothers failed to return to immunize their children with subsequent vaccine doses because they were scared about potential side-effects but were too shy to ask questions of the officious vaccinators.

Points to bring out in the role-play:
- Attitude of health workers to mothers.
- How the supervisor approached solving a problem.

Possible conclusions:
- Vaccinators should have been more sensitive to local feelings.
- Health education to mothers should have mentioned possible side effects of vaccines.


Demonstrations

Demonstrations can be used if you are teaching individuals and small groups. They are particularly useful for nutrition education with groups of mothers or for teaching practical skills such as building latrines. The session should be long enough for everyone to get a chance to practice the skills being demonstrated.

These ideas may be useful when planning a demonstration of some practical aspect of health education.

Subject matter. Identify the skills that you will need to teach by assessing the needs, current knowledge, and local conditions. Skills should be appropriate to the refugees’ education, physical capabilities, and available resources. For example, it may not be appropriate to teach school children how to build a school latrine if they are not strong enough to perform the physical labor of digging a hole.

Materials needed. Materials must be commonly available and affordable. When demonstrating how to prepare of foods, for example, use only those foods and utensils that are available to most families in the camp. Methods of preparation that require extra fuel are pointless if there are constant fuel shortages. Refugee mothers should be taught how to mix ORS from packets, but it would not be worthwhile to teach how to make an oral rehydration mixture of sugar and salt if there is no sugar or equivalent in the food ration.

Planning. A demonstration will be effective if you gather all the materials required in advance and choose a convenient time and place for the demonstration.

Some useful steps to remember when you are giving a demonstration are:
- Evaluate what the audience already knows about the subject.
- Explain exactly what will be demonstrated, and, if possible, show simple pictures so the audience has a clear idea of what to expect.
- Carry out the demonstration slowly, step by step. Everyone should be able to see each step, and ask questions at each stage.
- Repeat the demonstration. It is a good idea to use a volunteer from the audience.
- Let the members of your audience practice the skill. There should be enough materials and time allocated to allow everyone to practice. While the refugees practice, you should observe carefully and give constructive feedback to each individual.

Observation during practice is one way of evaluating the demonstration. More structured evaluation through home visits later on will reveal if refugees are performing the new skills in a real life setting; if they are having trouble, you may need to revise the demonstration for new audiences, and repeat it for previous audiences.
INDIVIDUAL COUNSELLING

Counselling involves a person with a need (the client) and a person who provides support and encouragement (the counselor). They meet to discuss ways by which the client can gain the knowledge, confidence, and ability to solve his or her own health problems within the context of the refugee camp. Any health worker can offer consultation in relation to a medical consultation, before or after a supplementary feeding, or in a refugee's home. Individual counselling can be useful when a refugee declines to follow-up on a course of treatment for a chronic disease such as Hanseniasis or tuberculosis, or when parents continually miss feeding sessions for their children.

You should bear in mind that counselling is more than simply giving advice. Although providing individual information can be a vital part of counselling, the counselor should encourage the client to respond by asking open-ended questions. Any resolutions reached must be the client's decision and not just the counsellor's recommendation of a particular course of action. The successful counsellor tries to understand and relate to the client's situation, and follows up later to see whether the problem has been resolved.

FURTHER READING

If you wish read further on this subject, we suggest Chapter 13: Story-telling and Chapter 14: Role Playing in: Helping Health Workers Learn, by D. Werner and B. Bower, 1982. The Hesperian Foundation, Palo Alto.
Now that you have read about some of the methods of presenting information about health, evaluate your understanding by completing this self-assessment test. If there are parts you are not able to answer, we suggest you go back and review the relevant parts of this section.

**Multiple Choice**

*Circle the correct answer*

1. A good health presentation:
   a. uses high technology methods
   b. covers several topics at once
   c. should be in a room designed for that purpose
   d. should have pre-determined objectives

2. Story telling requires:
   a. carefully prepared materials
   b. characters with names
   c. no audience participation
   d. an educated audience

3. A demonstration on how to prepare an unusual food:
   a. should involve actual practice in preparing it
   b. is best given to school children rather than housewives
   c. should use the best cooking utensils available
   d. is not necessary if a leaflet can be drawn up instead

4. Individual counselling:
   a. is rarely necessary in refugee situations
   b. requires no special skills
   c. is a good method for promoting a mass immunization program
   d. aims to increase the ability of the individual to solve his own health problem

5. Match the appropriate teaching method with the educational situation
   
   **health presentation**
   **individual counselling**
   **mass media campaign**
   **demonstration**

   a. failure of patient to continue treatment
   b. poor camp hygiene
   c. new food in camp ration
   d. revised immunization schedule

6. **Exercises**

   Imagine that you are giving a presentation on camp hygiene. Describe three different ways to repeat the main message so that the audience will remember it.

7. Develop a story to tell mothers about the advantages of different weaning foods during a health presentation at a feeding center. Writing your story will help you to perfect important details. Practice telling the story aloud, if possible, to a colleague or friend, or record it on a tape recorder. Time the story to see if it took less than 10 minutes to tell. If someone listened, ask him what he thought the message was. If you recorded it, play the story back to yourself after a few days, and see whether the message still seems clear and concise.

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**Answer Key**

<table>
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<th>Answer</th>
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<td>3. A demonstration on how to prepare an unusual food:</td>
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<td>a. is rarely necessary in refugee situations</td>
</tr>
<tr>
<td>5. Match the appropriate teaching method with the educational situation:</td>
<td>a. failure of patient to continue treatment</td>
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</tr>
</tbody>
</table>
CHAPTER 5

Health Education Materials

LEARNING OBJECTIVES

After studying this chapter you should be able to:

List some teaching aids which are commonly used in health education.

Describe some advantages and disadvantages of using ready-made materials.

Describe some advantages and disadvantages of creating your own teaching aids.

List general guidelines for creating new teaching aids.

Describe how to test teaching materials.

TEACHING MATERIALS

Health educators can select from a variety of teaching aids, including posters, flannelgraphs, slide sets, and models. Teaching aids should help people to develop their independence and self-reliance, by encouraging them to act and think for themselves.

Table 2 lists some common teaching aids, their relative advantages and disadvantages, and tips on their preparation and use.

READY-MADE TEACHING AIDS

You may wish to use health education materials easily available in the host country, from international agencies such as UNICEF, or other sources such as local or foreign non-governmental organizations. Posters, flip-charts, and leaflets that are already available are extremely valuable in a refugee or rapid onset disaster. They can usually be acquired quickly, and do not require an initial investment of time or effort on the part of the limited staff during the emergency phase.

In order to make an effective statement that is quickly understood and appreciated by your audience, visual aids should portray people from the same society in culturally appropriate dress. Foods, homes and animals must be familiar to the refugees; and the language must be appropriate. Otherwise, the audience may be distracted by strange details and miss the message.

Imported teaching aids of a generic nature are rarely appropriate. People with little formal education often do not understand cross-sections, schematic drawings of individual body parts presented without the rest of the body, pictures of microscopic events, caricatures of body organs, pathways with arrows, formulae, or abbreviations.

LOCALLY MADE TEACHING AIDS

If you wish, you can create your own teaching aids which are directly relevant to your refugee situation. In order to make the aid as precise and meaningful as possible, you should define your objectives and bear in mind the audience to whom the aid will be addressed. By making these decisions in advance, you will provide yourself with guidelines which will probably be useful when you are making the teaching aid.
<table>
<thead>
<tr>
<th>Table 2: Some Common Teaching Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Handouts and other printed matter</strong></td>
</tr>
<tr>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>• Particularly useful to trainees because they serve as visual aids during the training. Can also serve as useful sources of reference later on.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
</tr>
<tr>
<td>• May distract trainees who will read or work on handouts if they are distributed too early.</td>
</tr>
<tr>
<td>• Not useful for illiterate trainees unless carefully planned.</td>
</tr>
<tr>
<td>• Reproduction depends on available facilities and time, e.g., stencil, offset, typing with carbon copies, photocopier.</td>
</tr>
<tr>
<td><strong>Tips on preparation and use</strong></td>
</tr>
<tr>
<td>• Can be designed in different ways:</td>
</tr>
<tr>
<td>* as visual illustration of trainer’s presentation</td>
</tr>
<tr>
<td>* as work-books with exercises</td>
</tr>
<tr>
<td>* simply as printed information</td>
</tr>
<tr>
<td>State the use of the handouts. Plan carefully the spacing, illustrations, labeling, headings, paging, type and size of paper.</td>
</tr>
<tr>
<td><strong>Blackboard</strong></td>
</tr>
<tr>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>• Generally available and inexpensive.</td>
</tr>
<tr>
<td>• Does not require advance preparation of visual aids.</td>
</tr>
<tr>
<td>• Very useful in presentations which require much erasing, e.g., mathematical calculations.</td>
</tr>
<tr>
<td>• Allows step-by-step build-up of presentation.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
</tr>
<tr>
<td>• Trainer has to turn her back to the trainees. When writing, attention is on the board, not on the trainees.</td>
</tr>
<tr>
<td>• Trainer does not see audience reaction while writing.</td>
</tr>
<tr>
<td>• Can usually be read or seen only at a limited distance.</td>
</tr>
<tr>
<td>• Dusty and messy to hands and clothing.</td>
</tr>
<tr>
<td>• Limited dramatic effect of the presentation.</td>
</tr>
<tr>
<td><strong>Tips on preparation and use</strong></td>
</tr>
<tr>
<td>• Keep in mind the audience for whom you are writing.</td>
</tr>
<tr>
<td>• Use print or block capitals for emphasis.</td>
</tr>
<tr>
<td>• Write only the essentials; don’t overcrowd; be tidy and neat.</td>
</tr>
<tr>
<td>• Use coloured chalk for emphasis.</td>
</tr>
<tr>
<td>• Carry your own chalk and eraser to ensure availability.</td>
</tr>
<tr>
<td><strong>Charts and posters</strong></td>
</tr>
<tr>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>• Useful for displaying information on a permanent or temporary basis.</td>
</tr>
<tr>
<td>• May be prepared cheaply by the trainer, especially if only one or a few copies are needed. May be produced in quantity by a printer.</td>
</tr>
<tr>
<td>• Clip-charts are useful for presenting a number of points (or even story-telling) in short steps and certain order.</td>
</tr>
<tr>
<td>• Presentation is not messy and saves time.</td>
</tr>
<tr>
<td>• Materials are reusable for summary review an another presentation.</td>
</tr>
<tr>
<td>• Portable.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
</tr>
<tr>
<td>• Pages have limited space.</td>
</tr>
<tr>
<td>• Could present problems in transportation and storage, depending on number and bulk.</td>
</tr>
<tr>
<td>• Limited dramatic effect of the presentation.</td>
</tr>
<tr>
<td>• Should be big to be useful with a large group of trainees.</td>
</tr>
<tr>
<td><strong>Flannel-board</strong></td>
</tr>
<tr>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>• Easy and inexpensive to construct.</td>
</tr>
<tr>
<td>• Can be prepared in advance.</td>
</tr>
<tr>
<td>• Reusable and permits quick changes.</td>
</tr>
<tr>
<td>• Permits step-by-step build-up of complex figures.</td>
</tr>
<tr>
<td>• Versatile: can use words, phrases, lines, drawings, photographs and other cut-outs.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
</tr>
<tr>
<td>• Visual aids have to be prepared in advance.</td>
</tr>
<tr>
<td><strong>Tips on preparation and use</strong></td>
</tr>
<tr>
<td>• The essential parts of any flannel-board are the flannel itself, from which the surface and the cut-outs to be placed on it are made, and a flat piece of wood to keep the flannel firm. The backs of the cut-outs are pasted with material to make them stick on the flannel. This may be sandpaper, blotting paper, foam-rubber or other material that will adhere to the flannel.</td>
</tr>
<tr>
<td>• Plan and rehearse in advance the exact appearance of the board at any one time during presentation. Mark the positions of cut-outs lightly.</td>
</tr>
<tr>
<td>• Arrange cut-outs in order of presentation before you begin.</td>
</tr>
<tr>
<td>• Store the board and cut-outs carefully to keep them clean and prevent the sides folding.</td>
</tr>
<tr>
<td><strong>Overhead projector</strong></td>
</tr>
<tr>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>• Flexible materials can be prepared easily by different methods. It can be used in different ways—for writing and presentation of charts, etc.</td>
</tr>
<tr>
<td>• Can be used without completely darkening the room. It is easy to manipulate.</td>
</tr>
<tr>
<td>• Trainer faces audience all the time. She can work and write on it (horizontal surface) while sitting down.</td>
</tr>
<tr>
<td>• Permits use of colour and other effects by presenting short steps in orderly sequence.</td>
</tr>
<tr>
<td>• Transparencies are reusable.</td>
</tr>
<tr>
<td><strong>Disadvantages</strong></td>
</tr>
<tr>
<td>• The projector is expensive.</td>
</tr>
</tbody>
</table>
| • Requires electricity, special pen and acetate or plastic transparencies.
Tips on preparation and use
- Produce transparencies by drawing or writing directly on to transparent acetate (plastic) sheets. Use suitable grease pencils or felt-tipped pens.
- Two techniques which may be used are: "overlay" technique: transparencies can be laid one on top of the other to add labels, colour, or other details.
- "uncover" techniques: start by covering the entire transparency with a sheet of paper and then uncover more as necessary.
- Mount transparencies on cardboard with adhesive tape to preserve for future use and easier handling. Store carefully.
- Arrange transparencies in exact order or presentation; rehearse their use.

Slides and filmstrips with appropriate projector

Advantages
- Flexible materials can be prepared easily by different methods. It can be used in different ways—for writing and presentation of charts, etc.
- Can be used without completely darkening the room. It is easy to manipulate.
- Trainer faces audience all the time. She can work and write on it (horizontal surface) While sitting down.
- Permits use of colour and other effects by presenting short steps in orderly sequence.
- Transparencies are reusable.

Disadvantages
- Expensive.
- Most projectors require electricity.
- Even portable models may present a problem in mobility.
- Spare parts may be difficult to obtain and expensive.
- Require darkened room for presentation.

Tips on preparation and use
- Slides are easier to edit and arrange for training purposes than filmstrips.
- Put slides in the right order before presentation. If filmstrip is used, check the direction of the filmstrip. In both cases make sure you have the correct machine. Rehearse.
- Before and after the showing, prepare good presentation guides, e.g., what to look for, discussion guidelines or leading questions.
- Repeat the showing or parts of it for emphasis.
- Switch off projector when not in use.
- Make sure you have extra bulbs and long extension cord.

Sound filmstrip or slide-tape, presentations

Advantages
- The accompanying tape can present a dramatic account of the story behind the slides or filmstrip. This can be very dramatic, and effective for motivation and training, especially if professionally done.

Disadvantages
- Additional investment needed for equipment.
- Need special expertise to prepare and training and practice to use.

Tips on preparation and use
- The script or story (sound) and pictures should match well.
- Many agencies have prepared good sound filmstrips on slide-tape presentations. It would be less expensive to purchase these than prepare from scratch. Always preview before buying or see if relevant to your need and situation.

Use of real examples (e.g., real food items or models)

Advantages
- Convenient and bring real-life situations to class.
- Very effective for clear teaching and learning.

Disadvantages
- May not be readily available or difficult to bring in.

Tips on preparation and use
- Use real examples whenever possible.

Radio

Advantages
- Radio is probably the most widely available mass communication medium. It is very popular in rural areas. It is cheap, easy to operate and portable.
- It meets the need of institutions to reach scattered and distant segments of the population.
- Broadcasts can be taped for replay.

Disadvantages
- Available broadcasts may not contain material that is useful to the trainer.
- Influence on station programming is possible only through official channels. This requires considerable preparation.
- Listener reaction to the programme is not known, except when the broadcast is being heard by trainer and trainees in a group.
- Limited to audio only.

Tips on preparation and use
- If broadcast of a certain programme is known in advance group listening can be organized. About 20 members listen together and discuss what they heard, using guide questions. Feedback can be given to the broadcasting station.
- To be successful, the radio programme must be phrased to be understandable to the community. It must be presented to interest the average listener.


By encouraging the refugees to respond imaginatively, you can turn the manufacture of aids into a creative and instructive activity. Teaching aids, especially those for children, should be as fascinating and as fun as possible. Visual aids should not simply present facts, but should help refugees to think about the topic and to discover their own solutions.

You will probably find it rewarding to let local health workers, school children, or women's groups create their own teaching aids, since they will be more interested in the message contained in a product that they have selected and designed.
GUIDELINES FOR MAKING TEACHING AIDS

Here are some guidelines for making teaching aids which will be directed towards audiences with limited formal education:

- Make teaching aids locally and use low-cost materials which will have relevance to your audience.
- Employ the skills of the local population.
- Involve both adults and children in constructing teaching aids.
- Substitute real objects for drawings or photographs.
- Use people as real-life models. Human anatomy and signs of health problems can be drawn on people as well as on paper.
- Teach new ideas or skills by comparing them with familiar objects or activities.
- Make teaching aids as natural and lifelike as possible, especially when detail is important.
- Create hands-on models. Practical teaching aids that can be handled or assembled by your audience are usually very effective.
- Make teaching aids that are simple, so that other people can replicate them.
- Use pictures instead of words whenever possible, and use as few words or numerals as possible.
- Use color as much as possible.

See the appendix for examples of teaching aids taken from the book, Helping Health Workers Learn.

TESTING THE TEACHING AIDS

You should test any materials that you will be using as part of your health education program. A test can be simple and straightforward and yet provide you with the feedback that you require.

Here are some suggestions for carrying out a test:

- Prepare a few samples and show them to a test group that is similar to the intended target group.
- Discuss the teaching aid with your test group and use their answers to evaluate the extent to which intended message was understood. You could ask such questions as:
  —What message does the teaching aid convey?
  —Is the drawing clear?
  —Are the people dressed correctly?
  —Is everything life-like and realistic?

- If necessary, you can revise your teaching aid and then repeat the testing process.

- When you are sure that your test group is receiving the correct message from the teaching aid, then you can incorporate it into your health education program.
Now that you have read about the use of teaching aids in health education programs, evaluate your understanding by completing this self-assessment test. If there are parts you are not able to answer, we suggest you go back and review the relevant sections.

**Multiple Choice**
*Circle the correct answer*

1. The main advantage of already-available materials over locally-made ones is:
   a. the time saved
   b. better technical drawing
   c. cultural appropriateness
   d. cost

2. Locally-made teaching aids should be:
   a. designed by experts
   b. reproduced in large quantities
   c. natural and life-like
   d. as technical as possible

3. Match the teaching aid with one of its advantages.

<table>
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<th>flip-chart</th>
</tr>
</thead>
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<td>hand-outs</td>
<td>radio</td>
</tr>
<tr>
<td>filmstrip</td>
<td>real items</td>
<td></td>
</tr>
</tbody>
</table>

   a. useful for recording ideas during group work
   b. very effective for clear teaching
   c. no advance preparation required
   d. reaches scattered populations
   e. cheap to prepare and reusable
   f. can be used as references later
   g. colorful and dramatic way to bring real-life situation into classroom
   h. permits step-by-step buildup of complex figures

**True/False**
*Indicate T or F*

4. When designing a teaching aid, you should consider where it will be used.

5. Drawing anatomy on people is not recommended because it is likely to be disruptive and culturally inappropriate.

6. Testing teaching materials is unnecessary in disaster situations.

**Exercise**

7. Select a situation within a refugee camp in which a teaching aid would be useful. Describe the situation in writing, and state the purpose of the teaching aid, the target group, the setting, etc. Plan and construct a very simple aid, within the realms of your artistic ability. Once you have constructed it, list the questions you would use with a group to discover if the message of the aid was clear. If possible, show the aid to a colleague or friend and ask him the questions, and re-evaluate the aid on the basis of his response.
1. Health education is an essential service that should start in the emergency phase of a disaster and continue into the transitional and static phases.

2. You can train nearly anyone to become a health educator.

3. It is important to assess the previous knowledge of the refugees and to build upon that foundation.

4. There are many valuable teaching aids which you can incorporate into your program.

Now that you have finished this unit, you may wish to attempt the following problems on your own. These problems address various subjects which we discussed in the unit and will provide you with an indication of how well you have understood them.

1. Assess, from reports of a specific disaster situation, the most important and urgent health problems.

2. List some traditional customs, beliefs and practices in a specific refugee community and classify them as beneficial, harmful, or neither.

3. Discriminate between health practices in a refugee situation which affect only the individual and those which affect others.

4. Identify the people (for example, teachers, traditional healers, etc.) in a refugee community who could most influence health behavior and explain why. Develop ways of involving them in a health education program.

5. Design simple, effective teaching aids addressing a specific health education topic. (As we discussed in Section IV, the message will be more effective if you use examples from a refugee camp.)

6. Plan a health education presentation or demonstration for:
   - a community or camp sector meeting
   - a group of school children
   - a group of mothers in a health facility waiting room.

7. Develop a story to tell mothers about the advantages of different weaning foods:
   - during an individual counselling session
   - at a feeding center.

Discuss the advantages and disadvantages of each setting.

CONGRATULATIONS! You have completed the first unit.
The Role of Refugee Health Workers

When you are planning an RHW training program, you will first need to decide upon the role for your health workers. This will influence your training and selection methods.

You may find that a useful starting-point for your selection of tasks to be carried out is the work done by people called Community Health Workers (CHWs). These workers may be useful role-models, since they are members of the local population and they promote the health of their community by performing health-related work in non-disaster situations.

Refugee camps in the emergency phase are rarely close-knit communities. A village or geographical area disrupted by a disaster can also experience a temporary lack of social cohesion. However, over the long term, the camp or settlement will grow to resemble a normal community, its members having a variety of divergent personalities, skills, and objectives — as well as the potential to work together to solve common problems. Role of the RHW during the emergency phase In the emergency phase, it is difficult to have health workers perform the same roles they would in a settled community. It is likely that RHWs will be needed to help with emergency work in clinics and nutrition centers, and to gather information for program planning and implementation. RHWs are important as both gatherers and dispersers of information.

Role of the RHW during Transitional or Static Phases

If the training program is developed during the transitional or static phases of a disaster, the RHWs will probably function more like their CHW counterparts in unaffected areas. They may provide basic health care and referral services, promote community self-improvement, organize and promote preventive programs, collect basic health information, and be a link between the health team and the community. It is common for RHWs to spend time outside the health facility in the camp areas for which they are responsible.
HEALTH FACILITY-BASED AND CAMP-BASED RHWS

Health facility-based workers assist medical staff in their work. The work of health facility-based RHWs consists mainly of curative activities, although they may also promote preventive activities. The medical services of these RHWs are sometimes extended into the community when follow-ups are made on former patients. Health facility-based RHWs may also be responsible for routine tasks, such as charting the weight and progress of children at a feeding center.

Camp-based workers are RHWs who operate in residential areas. Their work is directed towards prevention of health problems. They are often assigned to a specific sector of the camp or area, and are responsible for education and mobilization activities in that sector. They may be trained to treat minor illnesses to reduce the workload at health facilities.

While both types of workers should have a basic understanding of the importance of disease prevention, the facility-based worker will require more training in curative and administrative skills, and the camp-based worker will usually benefit from an emphasis on educational and social mobilization techniques.

TASKS FOR REFUGEE HEALTH WORKERS

This list may provide you with an indication of the kinds of tasks that can be assigned to RHWs. We have subdivided the list into different categories, so that you can see clearly the different roles that can be played by RHWs.

Health Facility-based Activities

- Direct patients in an orderly manner through a clinic; prepare a patient for examination by a nurse or physician; ensure that all treatments prescribed are collected and administered.
- Assist in the administration of drugs, the maintenance of clean equipment, and the safe disposal or sterilization of used supplies.
- Conduct routine immunization activities.
- Undertake basic first aid for burns and accidents. This can include the cleansing of wounds, the application of dressings, and the disposal of infected material.
- Assist at a normal child birth. Be able to recognize what is obstetrically abnormal.
- Assist in disease control and other special programs based at the facility.
- Collect and transport laboratory specimens.
- Encourage refugees to take advantage of all available health programs, especially preventive activities such as immunization.
- Promote personal, domestic, and food hygiene through health education activities in the facility.
- Provide instruction about ORT and the use of oral rehydration solutions, and administer the solutions.
- Assist in the recording and interpretation of health information.
- Follow-up with visits to the homes of those who attend the clinic with malnutrition and severe diarrhea.
- Visit homes to ensure the continuation of prescribed treatments, such as chemotherapy for tuberculosis and leprosy patients, and.

Nutrition Activities

- Assist in the organized and equitable distribution of general rations.
- Provide instruction on the best use of relief foods, and the hygienic storage and preparation of food.
- Give advice about the most economic use of cooking fuels.
- Act as nutritional “scouts” in the community, ensuring that no cases of severe undernutrition go undetected.
- Assist the other members of the health team in the planning and execution of nutrition surveys.
- Weigh and measure children, monitor their growth, and assess their nutritional status at a feeding center.
- Assist in the management of a therapeutic feeding program for the care of severely malnourished children.
- Record and interpret nutrition information.
Environmental and Hygiene-related Activities

- Promote a high standard of general hygiene in the camp or settlement through educational activities and personal example.

- Locate the safest areas for defecation if latrines are not in use and ensure the refugees use only those areas.

- Teach mothers and older children how to safely dispose of the feces of young children.

- Teach the community about latrine design, hygiene, and maintenance, and recommend where to build latrines and refuse pits in relation to water supplies.

- Show how to dig a refuse pit, and advise the community how and why to use it.

- Inspect water sources and advise refugees on the prevention of pollution.

- Ensure there are no potential or actual mosquito breeding sites in the area.

- Prevent rapid deforestation by encouraging the use of alternative fuels, and co-ordinate with national forestry service to establish reforestation campaigns.

- Reduce fire risks and maintain simple means of extinguishing fires.

Figure 4

Range of tasks a RHW might carry out in a supplementary feeding center that carries out preventive health activities:

1 — Helping to maintain orderly lines
2 — Checking cards and registering attendance
3 — Immunizing new entrants
4 — Weighing and measuring children and recording weights
5 — Preparing and serving food
6 — Encouraging consumption of food
7 — Health and nutrition education
Other Outreach Activities

- Assist in the investigation of disease outbreaks.
- Participate in mobilization activities for immunization campaigns, camp or community clean-ups, etc.
- Promote Child-to-Child programs by working with teachers in schools.
- Provide health education talks and individual counselling to new camp arrivals or registrants for services.
- Report births and deaths in a defined area of the camp or community.
- Participate in the implementation of immunization campaigns by applying vaccines, registering children, etc.

In a disaster-affected area without formal camps, the administrative structure supporting the health workers is more likely to conform to national Ministry of Health standards, with one or more persons responsible at the district or regional level. It is equally appropriate to organize health committees in the geographical or political units in which the RHWs will work in this situation, as long as it does not conflict with government policy, and the local officials concur.

Within each camp sector, you may find it effective to organize the refugees into committees for various activities, such as environmental clean-up. It is important to form a health committee, which can select RHW trainees, supervise RHWs, motivate and mobilize camp residents, and advise health professionals on culturally appropriate ways of coping with particular problems.

A refugee health committee should represent all residents of the area. Depending on the situation, it may be appropriate to include members of political groups or religious communities. Meetings should be well-planned and focus on specific issues, and include some fun activities to keep up the members' interest. When a committee makes a decision, they should define a plan of action, which states who must do what and when. In this way, the committee can play an active part in the refugees' health care.

**Administrative Support Structures**

UNHCR recommends that one official should be designated to direct health services in each major refugee settlement. In each camp, there will probably be an administrative coordinator or a committee to see that recommendations are carried out, and that health problems are prevented and solved. Where possible, a separate person might coordinate health education and/or training as well.
Now that you have read about the role of refugee health workers, you may evaluate your understanding by completing this self-assessment test. If there are parts that you are not able to answer, we suggest that you go back and look at the relevant parts of this chapter.

**Multiple Choice**

*Circle the correct answer:*

1. A refugee health committee:
   a. should be appointed by the Ministry of Health
   b. should play a role in the selection and supervision of refugee health workers
   c. should never include traditional healers or birth attendants
   d. usually is a mere formality in a health program

2. Camp-based workers are generally oriented towards ________________ and facility-based workers towards ________________.

**True/False**

*Indicate T or F*

3. Refugee camps resemble normal communities from the emergency phase onwards.

4. An important role for refugee health workers from the onset of a disaster is as a channel of information between health workers and the affected population.

5. As a refugee situation moves through the initial to the static phases, the general purpose refugee health worker is more likely to spend less time in a health facility.

6. It is rarely justifiable to train more than one type of health worker from among the refugee community.

**Exercise**

7. Describe an imaginary refugee situation, or use documents from an actual situation. Specify basic details, such as the phase of camp development, the type and numbers of health workers available, the main health problems and facilities in the camps, the physical size and population of the camp, and outstanding needs.

Describe the ideal role of a refugee health worker in this situation. Write a job description for this worker by making a list of tasks that he would undertake, being realistic about the amount of time each task is likely to take and the amount of time he may have available.
CHAPTER 7

Selection of Refugee Health Workers

LEARNING OBJECTIVES

By studying this chapter you should learn to:

Specify criteria for the selection of refugee health workers in disaster circumstances.

Name some of the attributes of a good trainer.

List various schemes for the remuneration of refugee health workers; the advantages and disadvantages of such schemes.

Selection of Refugee Health Workers

There are various factors which will influence your selection of locally-recruited health workers. The most important of these are: the role they will play, the stage of the crisis, and the predicted duration of the camp. The selection process should also take into account the guidelines for any existing programs in the host country.

During the emergency phase, it is necessary to select your facility-based worker quickly. Although this rapid selection will probably limit community participation in the choice of health facility-based RHWs, you may find it helpful to consult refugee or community leaders. They can advise you about the type of person who would best relate to those people who will be attending the clinics. If a health committee exists, consult its members.

You will probably find that gaining the support of the refugee community is a good way to ensure the success of a camp-based RHW. Community members are more likely to support a RHW if they have participated in his selection. If they have not taken part in the selection process, then there may be lack of support for health related activities in general. Participation in the selection process is a step toward greater responsibility and control by people over factors that affect their health and may be especially important to refugees who temporarily have little control over many aspects of their lives. Also, a health worker chosen by the residents of a camp sector or village, or their health committee, is more likely to feel that his or her first responsibility is to that population.

You can involve the community residents in the RHW selection process by holding community meetings to discuss the attributes the RHW should have. This meeting should be called by the health committee. Such a meeting allows community members to define aspects of the job and the person they want to fill it. When this list of attributes is complete, the health committee can accept nominations for RHWs.

If possible, meetings should be held over a few weeks to make sure that everyone understands what is involved, and to accustom refugees to expressing their feelings publicly. It also gives religious and political groups a chance to be included. In Latin American camps, refugees often organize themselves in Christian base communities, and involve group members in health-related programs to increase their effectiveness.
Attributes of Refugee Health Workers

Here are some attributes to consider when you are selecting your RHWs.

Gender. The decision to train male or female workers depends, to a large extent, upon cultural and local factors. The appropriate gender for a worker in an ante-natal clinic may be obvious, but it may be more difficult to select camp-based workers. One program in Pakistan selected only males after consultation with refugee leaders, because cultural constraints meant women could not circulate freely enough to be effective workers. However, women were trained for specific tasks as mid-wives that they could undertake in the immediate area of their homes. Even in non-Muslim cultures, male relatives may feel uncomfortable in permitting women to work outside the home. On the other hand, there are often more women than men in refugee camps, or the men may travel away from the camp for work or other activities, and so it may be more advisable to train women.

Age. Older health workers are often respected in a community. However, in a spread-out refugee camp or disaster-affected settlement, it may be hard for them to cover the necessary distances while a younger worker may be able to walk longer distances for home visits. Younger workers may be able to learn quickly, but they are likely to be resettled sooner than older people, or they might choose to migrate outside the disaster area. Although most health programs choose to train health workers who are in their teens and twenties, middle-aged persons often work out better.

Information from many CHW programs in non-disaster situations shows that the most reliable age group is from about 25 to 40, but an important factor to bear in mind is the nature of the workers' tasks. An older RHW with her own children would probably perform well in a supplementary feeding program where she advises other parents.

Education. The desirable educational level of health workers depends on the tasks to be performed. It would be difficult for an illiterate refugee to fill out Child Health Cards in a nutrition clinic. However, the same worker might be able to learn quickly how to promote environmental sanitation, and will probably remember what is learned as well as a literate worker. Also, in a refugee camp, more highly educated persons are likely to be resettled sooner, and the investment in their training will be lost at an earlier stage.

Language skills. It is important that the workers speak the language of the majority of the refugee population. It is also desirable, but not always possible, for the workers to speak the language of expatriate trainers.

Personal qualities, attitudes and concerns. A RHW must show concern for others, identify with the poorest in the refugee community, and have a strong sense of fairness. These attributes are especially important where the RHWs may control the distribution of resources such as food, water, and medicines. Candidates who appear interested in acquiring prestige, power, or remuneration are not desirable.

Experience. The refugee population may contain people who were health workers in their country of origin, received some in-service training in first aid with the military, or were trained as health workers in the area before the disaster. Although they might be among the first to be resettled or to migrate, it would still be both wise and considerate to take advantage of their experience, not only as workers but also as trainers and planners.

Traditional healers and birth attendants might also be present in the refugee population. Take advantage of their skills, and invite them to participate in training classes, where they can share their knowledge with trainees.

<table>
<thead>
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<td>Consider the following in the selection process:</td>
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<tr>
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<tr>
<td>Education</td>
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<tr>
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</tr>
<tr>
<td>Experience</td>
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</tbody>
</table>

Attributes of Trainers

A training program will be likely to succeed if the trainer has much in common with the trainees. RHWs will follow the role model provided by the instructors, so it is advisable that they come from similar background and be regarded as equals by the refugees. It is probably more important for an instructor to be able to establish a rapport with people and to communicate easily, and to have some knowledge of educational techniques than highly technical expertise. It is very difficult for a
Chapter 7: Selection of Refugee Health Workers

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Traditional healers and birth attendants might also be present in the refugee population. Take advantage of their skills, and invite them to participate in training classes, where they can share their knowledge with trainees.

Attributes of Refugee Health Workers

Consider the following in the selection process:

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<tr>
<td><strong>Gender</strong></td>
<td>Should be appropriate to culture and work to be performed.</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>Age group 25–40 found to be most reliable.</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>Level required should be related to tasks.</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>Must be able to communicate easily with community and trainers.</td>
</tr>
<tr>
<td><strong>Experience</strong></td>
<td>Traditional healers, birth attendants, and those with prior health training may be especially qualified.</td>
</tr>
</tbody>
</table>

Attributes of Trainers

A training program will be likely to succeed if the trainer has much in common with the trainees. RHWS will follow the role model provided by the instructors, so it is advisable that they come from similar background and be regarded as equals by the refugees. It is probably more important for an instructor to be able to establish a rapport with people and to communicate easily, and to have some knowledge of educational techniques than highly technical expertise. It is very difficult for a
highly-educated Westerner, speaking a second or third language, to communicate effectively with refugees in a training class.

If there is no local trainer available, then it is important that an "outsider" learn as much as possible about the refugees' culture, traditions, and language before instruction begins. The professional can then train "trainers", who will in turn train a cadre of RHWs. An expatriate can assist the principal teacher, offering expertise when it is needed. Host country nationals often speak the language of the refugees, and have relevant experience and aptitude as trainers. This occurred in Somali camps in the early 1980s. In some cases, the expatriate or host country health worker can serve as a "training organizer," helping the instructors clarify the technical content for lessons and audio-visual materials, reviewing the effectiveness of each training session, and helping to evaluate the progress of the students.

REMUNERATION OF REFUGEE HEALTH WORKERS

The camp health committee, or whoever recruits health workers, should consider if and how RHWs should be remunerated for the time they dedicate to their work. In community-based programs many systems of compensation have been tested, with varying degrees of success. These methods include payment of a salary by an external agency, the government, or the community itself; the collection of a commission on drugs prescribed; raising funds through community projects such as vegetable gardens; exchanging communal work on the CHW's land for health services; exchange of food for services; and payment of a fee for service. In some projects, the CHW worked purely on a volunteer basis. All of these methods have some drawbacks or problems; for example, paying a commission on drugs may lead to over-prescribing or even corruption. The most reliable arrangement in the long term appears to be one in which the CHW receives some remuneration from the community or government. Although a voluntary commitment would be ideal, it does not always happen in fact. A worker who receives no compensation or recognition might feel unappreciated, be hard to supervise, or be unwilling to do all the work that is expected. In addition, workers who assist CHWs often expect some remuneration for their time. These issues apply to RHWs as well as CHWs. Where refugees are forcibly restricted to a camp or cannot work in their fields because of drought, they may welcome the opportunity to work in health programs to relieve boredom. However, it may still be culturally unacceptable for them to work for nothing. In the Somali camps in 1980, workers in supplementary feeding programs received extra cooked food for themselves and their families. Those who work in dry food distributions sometimes receive extra rations. In 1983-84, midwives trained among refugees in Pakistan received the same compensation that they would have in their home communities — payment in kind in the form of a chicken or some cloth.

It is more difficult to decide on remuneration for camp-based workers, since there may be no tangible and material result of their activities, and they are not directly related to the distribution of some commodity. The camp sector or disaster-affected area will probably lack the resources to pay the worker directly. It may not be a good idea to provide compensation from the central level, since self-help initiatives may be discouraged. In some camps, refugees have refused to participate in camp improvement projects without personal compensation once others had received payment for similar activities.

Although each particular case will differ, a general recommendation should be that if any payment is to be given, all RHWs performing similar work should receive the same compensation. For example, if those who help in food distribution receive extra rations, so should workers who assist in a vaccination campaign.

Make it clear that the compensation comes from the refugee community, the camp health committee, or the government, and never from an external agency or an international organization. An external agency will probably withdraw funding over the long term, and it may raise expectations of the workers as to what additional payment they can seek. It is potentially more damaging to a program to withdraw compensation once begun, than to provide it at a later point.
Now that you have read about the selection of refugee health workers, you may like to evaluate your understanding by completing this self-assessment test. If there are parts that you are not able to answer, we suggest that you go back and look at the relevant parts of this chapter.

**Multiple Choice**

*Circle the correct answer*

1. One of the reasons why the community should participate in the selection of a camp-based worker is:
   a. the worker will feel more responsible for his performance to the community that selected him
   b. out-dated Ministry of Health guidelines can be avoided
   c. camp doctors will not have to accept the blame if the program fails
   d. this process saves time

2. When determining remuneration of refugee health workers:
   a. international agencies should be considered as sources of funding
   b. there is no strict rule that works in all circumstances
   c. facility-based workers should receive more than camp-based workers
   d. payment should always be in cash, never in kind

3. Match the type of duties which a refugee health worker will carry out in the first column with the most important attribute in the second column to be considered in the selection process.
   - age
   - gender
   - literacy
   - previous experience

   a. trained birth attendant
   b. recording diagnoses in health center
   c. outreach activities in entire camp
   d. triage work in emergency phase

**True/False**

*Indicate T or F*

4. The attributes of a refugee health worker should be determined by camp staff before discussion with the health committee.

5. Experience has shown that young male refugee health workers almost always perform better than other groups.

6. Host country nationals are often better trainers than expatriates because of language skills and cultural awareness.

**Exercise**

7. In an area with many displaced persons in Africa, a health worker training program is being implemented. The 25,000 displaced are spread out over many miles, although all depend on food, relief supplies and medical assistance from one central point. The community is primarily Moslem, with the more educated displaced speaking French as well as the local language. Health services are provided by a few French physicians on six-month contracts, and health workers from the capital who speak both French and some local dialects. The affected population speaks primarily two dialects, one of which is known in the capital. Two midwives on the health staff have worked in the area for several years, but otherwise there are no local workers and only a few traditional midwives and one traditional healer in the affected population. The disease pattern is not unlike that of many rural areas of third world countries, except that nutritional diseases are somewhat more prevalent.

If you were setting up a refugee health worker training program for this population, what would be the attributes a health committee should take into consideration in selecting trainees? Would some further information be helpful in making the recommendations? Which trainers would you select from the available health staff, and why?
Training Courses

After you have selected the role and tasks of the RHWs, and have chosen trainers and trainees, you can plan the training course.

In the emergency phase, on-the-job training will probably be the most practical and effective method of training. For example, a few refugees may be selected quickly by government health workers or a camp health committee to weigh and measure children at a supplementary feeding center, to record the measurements on a child health card, to determine which children will receive food, and to supervise the provision of cooked rations. In this case, the best training method may be repetition of these tasks with trainers until the refugees can carry out the work on their own.

In a transitional or static disaster situation, a more formal training program may be developed. Even a formal training system should be flexible, however, in order to adapt to changing camp or community health priorities.

Each general procedure to be learned can be divided into specific tasks. For example, you can divide a plan to teach about ORT and the use of oral rehydration solutions into the following tasks:

- Know the dangers of diarrhea and the need to give liquids and food to an ill child.
- Teach mothers to evaluate the degree of dehydration.
- Mix and administer oral rehydration mixture based on standard guidelines.
- Evaluate the children's progress at appropriate intervals.
- Seek additional help if necessary.

Learning Objectives

For each session that you teach you should prepare one or more specific learning objectives, as well as a means of evaluating whether that objective was met.

Learning objectives are statements of what a trainee should be able to do at the end of a training session. These objectives help an instructor plan clear, concise lessons. They also provide a basis for evaluating the training.
Learning objectives describe the desired outcome of the training in observable, quantifiable actions. Only by observing and measuring the learner’s actions after training can you determine if your instruction has been successful. It is good to try to write objectives that include “action words.” These action words describe what the learner will be able to do after taking your course.

? THINK: List six or seven action words you might use in teaching a health education course:


Here are some common action words for things that learners should be able to do: list, identify, demonstrate, describe, choose, decide, and calculate.

The following are not active words. “Passive words” which are not associated with measurable outcomes and should not be used in stating objectives are: understand, appreciate, know, be familiar with, comprehend, recognize.

Examples of good learning objectives include:

- The RHW will be able to list the four major signs/symptoms of measles.
- The trainee will be able to identify three signs of dehydration in a moderately dehydrated child.
- The RHW will be able to pack a vaccine carrier correctly.

Clear objectives answer the question, “can I describe what the learner will be doing?” If they do not, rewrite the objectives using an action word. Repeat this process for each task in your lesson plans. It is tedious work at first, but as you gain experience and obtain learner feedback, it will become a useful tool.

If there is a CHW training program in the host country or the refugees’ home country, lesson plans may already exist. If not, there are many examples available from the national offices of the World Health Organization or UNICEF that you can use as guidelines.

CHARACTERISTICS OF TRAINING COURSES

Course Length

The length of the course will be determined by the learning objectives and the methods. Tasks that require mainly memorization, such as learning the immunization schedule for young children, will probably require only a brief presentation or classroom discussion.

Those that require learning a manual skill, such as how to administer a vaccine, will require a longer practice session (perhaps in a clinic) and may have to be repeated in more than one session.

Those tasks that require analyzing a problem, such as how to encourage mothers to bring their children to be immunized, will require a discussion based on story-telling or role-playing.

The division of training time in Afghani refugee camps in Pakistan in 1983 was one-quarter in the classroom and the rest in a clinic or camp. The classroom time was allocated equally between discussion, demonstration, and role play.

In a refugee camp or disaster-affected settlement, the urgent need to serve the population will probably mean that RHWs put their new skills into practice immediately. Thus, a schedule of short blocks of training alternating with practice in daily, weekly, or bi-weekly cycles may be more suitable than a single long training course.

The length of training sessions will depend on the total amount of time you estimate is needed and the time trainers and trainees have available. Schedule the activities at a time that is convenient for the trainees whenever possible. The trainees should help you determine the schedule by picking the most convenient times.
Now that you have read about planning a training course for refugee health workers, you may evaluate your understanding by completing this self-assessment test. If there are parts that you are not able to answer, we suggest that you go back and look at the relevant parts of this chapter.

**Multiple Choice**
*Circle the correct answer*

1. Which of the following tasks can reasonably be derived from the objective “teach health workers how to give immunizations”. (There is more than one answer to this question.)
   a. name the immunizations available and at what ages and to whom they are to be given
   b. list the functions of the various components of the immune system
   c. pack a vaccine carrier
   d. sterilize reusable syringes
   e. calculate the economic benefits of disposable versus reusable needles

2. What would be the most appropriate method of meeting the learning objective “refugee health workers will be able to record weights of children on child health cards”?
   a. small group discussion on the range of normal weights of children under 5 years of age
   b. reading a hand-out on using child health cards written for adults with limited literacy skills
   c. filling in weight charts as the instructor calls out examples of ages and weights
   d. watching a video presentation on feeding programs in refugee camps

3. Class size should never be more than about 12-15 students unless:
   a. a highly skilled trainer is involved
   b. there is only one classroom available
   c. more health workers are needed immediately
   d. the group frequently breaks into smaller units

**True/False**
*Indicate T or F*

4. Under some circumstances, a formal training course for refugee health workers is not necessary.

5. The length of a training course should be determined before the lesson plan is begun.

6. It is best to mix different types of learning methods depending on the types of skills to be learned.

7. Trainees will most rapidly be able to put into practice their new skills if course topics are arranged in order of priority.

8. Summaries at the beginning and end of sessions are useful to both students and teachers to know what is expected and what has been achieved.

**Exercise**

9. Write at least one learning objective related to each of the following topics:
   - safe water sources in the camp.
   - numbers of births and deaths in a specified area.
   - building latrines.
   - rehydration using oral rehydration salts in packets.
   - minor injuries.

10. Select one health topic with which you are quite familiar. Write a lesson plan for that topic, by breaking down the topic into tasks, state the method to be used to teach each task, write learning objectives, estimate the time required (allowing flexibility) and materials and equipment needed.
CHAPTER 9

Supplies and Equipment

LEARNING OBJECTIVES

After studying this chapter you should be able to:

- Discuss the major issues involved in the decision about which medications a refugee health worker should control.
- Prepare a list of supplies and equipment for RHWs.
- Discuss the certification of refugee health workers.

ACCESS TO MEDICINES

RHWs require different supplies and equipment, depending upon the tasks to be performed, the stage of the refugee crisis, and the resources available. A RHW whose tasks are related only to weighing and measuring children at a supplementary feeding center will need no special equipment beyond that available at the center. However, a camp-based worker will need some basic materials to keep with him. It is responsibility of the health committee or administrator to decide which medicinal supplies the worker should control.

Organizers of CHW programs in non-disaster situations hold varying opinions as to which medicinal supplies their workers should control. The leaders of some programs maintain that a CHW should be oriented towards prevention, and only have access to minimal first aid supplies. In other programs, CHWs handle a wide range of medications, including antibiotics.

This list of considerations may help you to decide to which medicines camp-based RHWs should have access:

- **Availability of other health services in the area.** A camp-based health worker will usually be responsible for one sector of a camp or geographic area. If the RHW is the only source of medical assistance in that sector, and other health facilities are far away and/or are closed in the evening the RHW should be responsible for more medicines.

- **Length and intensity of worker's training.** If, because of time constraints at the beginning of the program, the RHW's training is brief or sporadic, there is little point in having the worker learn about many different types of drugs. It is better to concentrate on having the RHW handle a very few medicines well.

- **The supervision the worker will receive.** A well-supervised RHW can dispense more medicines because any questions can be answered promptly and misuse can be corrected.

- **Availability of drugs.** If refugees have informal access to drugs from pharmacies or unauthorized sources, it may difficult to justify tight restrictions to RHWs. If antibiotics are freely available from an untrained pharmacist, they should also be available from a RHW who will prescribe them in the correct quantities and ensure they are taken in the correct dosage. Another consideration is that the refugee population may have less confidence
in a RHW if he or she cannot supply them with some of the drugs they can freely obtain from other sources. However, RHWs may be tempted to supply the black market if they have access to drugs and are not subject to adequate control.

The disease pattern. Widespread incidence of a disease may be adequate justification for allowing drug access to RHWs. If, for example, an outbreak of tuberculosis necessitates a control program, then RHWs should normally be able to supply appropriate drugs to increase the efficiency of the program.

Table 3 shows the list of medicines that WHO recommends in The Community Health Worker. These medicines are in the revised model list of essential drugs published by WHO. Most of them are included in their Emergency Health Kit.

The drugs to be supplied to RHWs in most cases should be selected from the list in Table 3, with local adaptations as appropriate. For example, some program planners would add ceftriaxone for the treatment of acute respiratory infections, and an additional disinfectant such as cetrimide. Medicines necessary to control specific diseases, such as tuberculosis or leprosy might be included.

At times, donations of inappropriate, dangerous, or useless medications are made to refugee health programs. Although it may require some delicacy and tact, planners should resist feeling obliged to accept the drugs. If possible, the donors should be told why the drugs cannot be used.

RHWs should be informed of the dangers associated with pharmaceutical products and especially injections. RHWs should learn the appropriate educational messages to promote in the community to discourage the abuse of drugs.

<table>
<thead>
<tr>
<th>Name of medicine</th>
<th>Used mainly for treatment of:</th>
<th>Form in which it is given</th>
<th>How much to give</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium hydroxide</td>
<td>abdominal pains</td>
<td>500-mg tablets</td>
<td>Baby (less than 1 year old): 1 tablet every 4 times a day for 5 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 1-3 tablets every 3 times a day</td>
</tr>
<tr>
<td>Aspirin</td>
<td>fever and pains</td>
<td>500-mg tablets</td>
<td>Baby: 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td>Benzoic + salicylic acid</td>
<td>skin diseases</td>
<td>ointment</td>
<td>Baby: First wash the skin with soap and water and leave to dry. Then put the ointment directly on the skin. Repeat once a day for 3 days.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td>Benzyl benzoate</td>
<td>skin diseases (fungi)</td>
<td>liquid to put on the skin</td>
<td>Baby: First wash the skin with soap and water and leave to dry. Then put the liquid on the skin directly or with a clean cloth. Repeat once a day for 3 days.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablet every 3 times a day</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td>Charcoal, activated</td>
<td>poisoning, abdominal pains</td>
<td>powder to be mixed with water</td>
<td>Baby: 1 tablespoon every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablespoon every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 1 tablespoon every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 1 tablespoon every 3 times a day</td>
</tr>
<tr>
<td>Chloroquine</td>
<td>fever (treatment of malaria)</td>
<td>150-mg tablets</td>
<td>Baby: 1 tablet daily for 3 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablet daily for 3 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 3 tablets daily for 3 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 6 tablets daily for 3 days</td>
</tr>
<tr>
<td>Ergometrine</td>
<td>bleeding after delivery or miscarriage</td>
<td>0.2-mg tablets</td>
<td>Baby: 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 1 tablet every 3 times a day</td>
</tr>
<tr>
<td>Gentian violet or iodine (tincture)</td>
<td>cleaning wounds, skin diseases</td>
<td>liquid to put on skin</td>
<td>Baby: First wash the skin with soap and water and leave to dry. Then pour a few drops of the liquid on the wound or spread on the skin with a clean cloth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablespoon every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 2 tablespoons every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 2 tablespoons every 3 times a day</td>
</tr>
<tr>
<td>Ipacacinia</td>
<td>poisoning (to vomit poison)</td>
<td>Syrup to drink</td>
<td>Baby: 1 tablespoon every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 2 tablespoons every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 2 tablespoons every 3 times a day</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 3 tablespoons every 3 times a day</td>
</tr>
<tr>
<td>Iron sulfate (ferrous salt)</td>
<td>anaemia, weakness, tiredness</td>
<td>60-mg tablets</td>
<td>Baby: 1 tablet to be taken with food once or twice a day for 1 month</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablet to be taken with food once or twice a day for 1 month</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 1 tablet to be taken with food once or twice a day for 1 month</td>
</tr>
<tr>
<td>Mefloquine</td>
<td>intestinal worms (round worms, pinworms)</td>
<td>100-mg tablets</td>
<td>Baby: 2 tablets to be taken with food twice a day for 3 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 2 tablets to be taken with food twice a day for 3 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 2 tablets to be taken with food twice a day for 3 days</td>
</tr>
<tr>
<td>Metronidazole</td>
<td>trichomoniasis</td>
<td>500-mg tablets</td>
<td>Baby: 4 tablets once</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 4 tablets once</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 4 tablets once</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 4 tablets once</td>
</tr>
<tr>
<td>Neomycin/ bacitracin ointment</td>
<td>skin diseases (infections)</td>
<td>ointment</td>
<td>Baby: First wash the skin with soap and water, and leave to dry. Then put the ointment on the skin with a clean cloth. Repeat once a day for 3 days</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 1 tablet once</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 2 tablets once</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Adult (or child over 12 years old): 4 tablets once</td>
</tr>
<tr>
<td>Niclosamide</td>
<td>intestinal worms (flat worms, tape worms)</td>
<td>500-mg tablets</td>
<td>Baby: 1 tablet once</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Small child (1-3 years): 2 tablets once</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Child (4-12 years): 4 tablets once</td>
</tr>
<tr>
<td>Oral rehydration salts (ORS)</td>
<td>Diarrhoea</td>
<td>1 packet dissolved in 1 litre of drinking water</td>
<td>As much as is needed to quench thirst. Then 1-2 cups of each serving should be passed. Adults may need several litres a day. Continue until diarrhea stops</td>
</tr>
</tbody>
</table>

It is advisable to develop an inventory control system for drugs at the educational level of the RHW. A simple form or notebook with ruled columns for quantity in, quantity out, and balance will do, with checking against patient records to ensure that the pattern of disease treated reflects the pattern of medicine used. Illiterate workers should be helped to design their own forms, using pictures to designate the columns and rows. As a supplement to this system, some supervisors ask to see empty containers to verify drug use.

**Supplies and Equipment**

A camp-based RHW who provides medical assistance in his or her own dwelling, or in a shelter designated as a health facility, will need some or all of the following equipment:

- a table and 2 chairs
- 1–2 benches
- a box or cupboard that can be locked
- 1–2 pans, bowls, glasses or cups
- 1–2 washbasins
- 1–2 containers for clean water
- soap, towels, nail brush
- broom, bucket, sponges, dusters
- scissors, knives, spoons
- alcohol
- a few notebooks or loose paper, pencils, pens, ruler
- a small spirit burner or means of making a fire for sterilizing equipment
- thermometers
- cotton wool and dressings
- bandages and sticking plaster
- medications
- syringes and needles
- forms for reporting and control of drugs and supplies

<table>
<thead>
<tr>
<th>Name of medicine</th>
<th>Used mainly for treatment of:</th>
<th>Form in which it is given</th>
<th>How much to give</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Penicillin</strong></td>
<td>Infections</td>
<td>Intramuscular injection</td>
<td></td>
</tr>
<tr>
<td><strong>Procaine</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Benzylpenicillin (medium-term effect)</strong></td>
<td></td>
<td>250,000 units every day for 3 days</td>
<td>1,000,000 units every day for 3 days</td>
</tr>
<tr>
<td><strong>Benzathine benzylpenicillin (long-term effect)</strong></td>
<td></td>
<td>600,000 units once</td>
<td>2,000,000 units once</td>
</tr>
<tr>
<td><strong>Amoxicillin (short-term effect)</strong></td>
<td>500 mg tablets</td>
<td>4–8 tablets per day for 4 days – 2–4 in the morning. 2–4 in the evening</td>
<td></td>
</tr>
<tr>
<td><strong>Phenobarbital</strong></td>
<td>To treat someone who has convulsions</td>
<td>50 mg tablets</td>
<td></td>
</tr>
<tr>
<td><strong>Piperazine</strong></td>
<td>Intestinal worms (roundworms)</td>
<td>2 tablets once</td>
<td>1 tablet twice a day for 5 days. Halve the dosage for 6 months</td>
</tr>
<tr>
<td><strong>Retinal (vitamin A)</strong></td>
<td>Eye diseases</td>
<td>60 mg tablets (200,000 U)</td>
<td>1 tablet once</td>
</tr>
<tr>
<td><strong>Silver nitrate</strong></td>
<td>Eye diseases (newborn babies)</td>
<td>2 drops in the eye</td>
<td>1 tablet once</td>
</tr>
<tr>
<td><strong>Sulfa drugs</strong></td>
<td>Infections</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sulamethoxazole + trimethoprim</strong></td>
<td>400 + 80 mg tablets</td>
<td>1 tablet twice a day for 5 days</td>
<td>1 tablet twice a day for 5 days</td>
</tr>
<tr>
<td><strong>Tetracycline</strong></td>
<td>Eye diseases</td>
<td>Eye ointment</td>
<td></td>
</tr>
<tr>
<td><strong>Antivenom serum</strong></td>
<td>Snake bites</td>
<td>Requires a proper cold chain system. To be given only on your supervisor's instructions.</td>
<td></td>
</tr>
<tr>
<td><strong>Tetanus antitoxin (serum)</strong></td>
<td>Injection</td>
<td>Requires a proper cold chain system. To be given with great caution only on your supervisor's instructions.</td>
<td></td>
</tr>
<tr>
<td><strong>Vaccines</strong></td>
<td>To prevent infectious diseases</td>
<td>Mostly given by injection</td>
<td>Requires a proper cold chain system. To be given only on your supervisor's instructions.</td>
</tr>
</tbody>
</table>
The UNIPAC catalog, usually available in UNICEF offices, lists some kits with basic equipment and supplies which may be suitable for a RHW. Non-specialized equipment can be made locally or purchased in a nearby town.

**CERTIFICATION OF RHWS**

It is customary to officially recognize the achievement of camp-based RHWS when they complete their training program. This may vary from a simple certificate given on completion of training to a formal document from the government recognizing them as health workers.

In countries with established programs for CHWs, the trained RHW may be certified by the government. The advantage of this certification is that when the disaster is over, the RHW will be in a better position to continue to work in a similar capacity.

Some government programs have established a career structure for health workers which allows a CHW with standard training and experience to apply for training and employment at a higher level in the health system. Because the RHW may be more motivated to perform well if these career opportunities are available, you should find out if RHWS can be certified by the host country, or by the originating or receiving country if resettlement occurs. If possible, training should be structured so that certification requirements are satisfied. If an agreement can be obtained from the host country early in the planning stage, the certification will be more meaningful.

All workers who complete a training course should receive some form of recognition. This can be a simple certificate with the title of the course, date, name of the participant, and signatures of the trainers and camp and/or Ministry of Health officials. If a camp has a popular political organization, such as the Tigrean People's Liberation Front or the Eritrean People's Liberation Front, you might ask these organizations to issue the certificates, provided that this would not put the health workers at risk if the political climate should change.
Now that you have read about supplies and equipment for refugee health workers, you may like to evaluate your understanding by completing this self-assessment test. If there are parts that you are not able to answer, we suggest that you go back and look at the relevant parts of this section.

Multiple Choice
Circle the correct answer

1. The supply of equipment to a refugee health worker should depend upon:
   a. the financial capability of the program
   b. the remuneration he will receive
   c. the length of time the crisis will continue
   d. the tasks he will be expected to perform

2. It is desirable to conform with government guidelines for training health workers because:
   a. the guidelines are usually the best available
   b. the trainees may have opportunities to continue working in the same field after the crisis is over
   c. government funding for training courses is more likely to be available
   d. there is no need to write new lesson plans

True/False
Indicate T or F

3. There is universal agreement that any health worker can prescribe antibiotics since the benefits outweigh the risks.

4. An outreach program for leprosy would be more effective if refugee health workers were authorised to administer prescribed medications.

5. The list of drugs in Table 3 are the only ones that should be considered for use in a refugee situation.

Exercise

6. In a long-lasting refugee situation in Asia, there is a well-developed refugee health worker training program. The trainees are selected by the camp sector to which they will be responsible, and are trained for six weeks, one-half in coursework and one-half in practical activities. The training involves the treatment of the most common childhood illnesses, as well as extensive preventive principles.

The refugee health workers have been working for three months since training, and each has a small room where he/she sees patients when he/she is not doing outreach work. He/she receives extra rations for his duties. There is a clinic with a physician and diagnostic services about one-half hour's walk away. However, the clinic closes at 6 p.m. most days, since the expatriate physician and host country nurses and medical assistants are prohibited from being in the camp between dusk and dawn for security reasons, and all of the staff have Saturday afternoon and Sunday off to return to their homes in the capital three hours away. There is a military ambulance which is available for life-threatening emergencies to take patients to hospital. Some traditional birth attendants and healers operate in the camp, and many medicines are available without prescription in a pharmacy in the nearest town.

Do you think that the RHWs should have access to a wide range of medicines, a few basic medicines, or only first aid supplies? Discuss, in writing, the pros and cons of each situation.
CHAPTER 10

Supervision and Feedback

LEARNING OBJECTIVES

After studying this chapter you should be able to:

Discuss five aspects of supervision.

Name the categories of people who might supervise a refugee health worker.

List the factors that determine the frequency of supervision.

List guidelines for supervisors giving feedback to health workers.

Check specific items during a supervisory visit.

SUPERVISION

What is supervision

Supervision is a vital part of high-quality, well-coordinated programs. Inadequate supervision is frequently the cause of serious deficiencies, and can lead to the failure of the health program. Supervisors are responsible for ensuring that their workers achieve high standards and meet program objectives. They can accomplish this by supporting each RHW and by helping others to plan well-organized programs. RHW supervisors might be employees of the host country's Ministry of Health, another host country government agency, an international organization, or a national voluntary agency. If the refugee health program is different from the national program, the supervisor must work to reconcile the two. International workers should remember that the host government is responsible for maintaining the program in the long-term. Supervisors need a variety of skills. Technical skills are needed to plan a health program, train health workers, and evaluate progress. Managerial skills are needed to make necessary program decisions. Interpersonal skills are needed to motivate and communicate with health workers.

Who should supervise

A facility-based RHW should be supervised by the person who assigns the RHW tasks on a daily basis, or who has responsibility for the program or service. A camp-based RHW should be supervised by his or her trainer, or by a health worker with a higher level of training.

All RHWs should receive informal feedback from other levels, such as the health committee, the refugees, other RHWs, and from workers at other health care facilities which receive the RHW's referrals.

When to supervise

It is best to observe the RHW under normal work conditions, performing tasks that the supervisor can evaluate. Good examples are to observe the RHW when he or she is teaching, or when visiting tuberculosis patients for follow-up. This supervision is needed to determine if the RHW is doing as well in the field as he or she did in the training program.
In the initial phase of a refugee crisis, or when the RHW is just starting to work, a supervisor should visit frequently to assess whether the training prepared the RHW for the situation, and whether more training is needed to cope with unforeseen circumstances. In addition, the supervisor might need information from the RHW on disease occurrence and deaths in the area, and it is often easier for the supervisor to reach the RHW than vice versa. As the RHW gains more experience, he or she requires less supervision. The supervisor’s visits become more a source of advice and support than an assessment of work performance.

**How to supervise**

By monitoring the performance of health workers, a supervisor learns how well they are doing their work and what their problems are. The real value of this exercise lies in the feedback from the supervisor to the health workers. From a supervisory visit, the RHWs should learn what they are doing well, what their problems are, and what they can do to solve them.

It is not difficult for the supervisor to give feedback to a health worker when the worker’s performance is excellent. It is sometimes difficult, however, when the supervisor has noted problems in the RHW’s performance. The RHW may be angry or discouraged. It is not helpful, however, for supervisors to avoid giving feedback about any observed problems, since problems that are ignored often become major deficiencies. It is important for supervisors to discuss the results of their supervision with RHWs in a helpful, supportive, and encouraging way.

Here are some guidelines for giving constructive and positive criticism:

- Discuss any problems with the RHW in private.
- Be specific and focus all criticism.
- Be generous in listing strong points and mention them first.
- Describe problems observed and discuss them objectively.
- Allow the RHW to explain or correct any of the supervisor’s statements.
- Compare the work of the RHW with program standards or his or her own previous work, but not with the work of others.
- Show a desire to help the RHW improve any weak points.

RHWs should have a chance to express their feelings about the quality of the services they are providing and the support they receive. They also need a chance to meet with other members of the health team to discuss health conditions in the camp or affected area. Therefore, periodic meetings are useful. Sometimes, in the early stages of an emergency, daily meetings may be needed to assign tasks for newly trained workers, exchange information, and discuss problems.

**What to supervise**

At first it may be difficult to select specific tasks to monitor. It is probably best to choose a few items to observe. You can base your choices on these points:

- The issues that are most important to the health of the refugees.
- The tasks that are most difficult for RHWs to carry out.
- The representative tasks that will give an indication of whether all tasks are performed well.
- How the RHW approaches the problems that the refugees complain about most frequently.

It is useful to arrange the specific items into a checklist. Figure 5 shows a checklist for workers whose tasks involve treatment of diarrhea cases.
### ORT Direct Observation Instrument

1. Day/month/year ___________________________  2. Location ________________________________
3. Observer’s name.
4. Health worker being observed: □ Community □ Auxiliary □ Registered Nurse □ Physician

#### Health worker takes medical history/examines child

5. Does health worker ask about:
   - Duration of diarrhea Y N
   - Frequency of stools Y N
   - Presence of blood and/or mucus Y N
   - Fever Y N
   - Thirst Y N
   - Other illnesses Y N
   - Treatment administered at home Y N

6. Does health worker:
   - Examine mucus membranes of mouth Y N
   - Pinch skin Y N
   - Examine if eyes are sunken if tears present Y N
   - Touch fontanelle Y N
   - Take temperature Y N
   - Weigh child Y N
   - Determine nutritional status (per local policy) Y N

#### Health worker manages diarrhea cases

7. Does the health worker classify child by degree of dehydration and/or other problems? Y N

8. Degree of dehydration as assessed by health worker: □ none □ some □ severe

9. Correct degree of dehydration (Observer assessment): □ none □ some □ severe

10. Does health worker select treatment plan? (Check one)
    - □ Home: extra fluids
    - □ Home: ORS/other solution
    - □ Clinic: ORS treatment
    - □ Clinic: Other (specify)

11. Does health worker correctly prepare ORS solution? Y N

12. Does health worker explain to mother how to administer ORS? Y N
    - Amount? Y N
    - Frequency? Y N

13. How much solution does child receive in first hour? ____________________

#### Health worker counsels mother

14. Does health worker counsel mother about:
   - Extra fluids during diarrhea episode Y N
   - Continued feeding (with locally determined nutritious foods) Y N
   - Continued breastfeeding Y N
   - When to return to clinic Y N
   - Home preparation of ORS or other recommended solution:
     - Correct amount of water Y N
     - Proper utensils Y N
     - Correct recipe Y N
     - Correct administration of solution Y N

Now that you have read about the supervision of refugee health workers, you may like to evaluate your understanding by completing this self-assessment test. If there are parts that you are not able to answer, we suggest that you go back and look at the relevant parts of this section.

**Multiple Choice**
*Circle the correct answer*

1. An adequate supervisor:
   a. needs mainly technical skills
   b. needs inter-personal as well as technical and managerial skills
   c. should also be the head of the health program
   d. does not need feedback from other staff or refugees

2. Supervisory visits:
   a. should take place when the supervisor can see the health worker in action
   b. should take place at the busiest part of the day
   c. are less necessary immediately after training
   d. should always be unannounced

3. Feedback from a supervisor to a health worker should take place:
   a. in the form of a letter
   b. in front of the other refugee health workers
   c. in a private discussion
   d. by comparing the workers' performance to that of his peers

4. Which of the following should appear on a supervisor's checklist for a refugee health worker who runs a small feeding center? (There is more than one answer to this question).
   a. measures out daily food needs accurately
   b. stacks plates neatly
   c. routinely reminds poor attenders to return
   d. encourages children to consume ration
   e. maintains legible record of weights on appropriate cards

**True/False**
*Indicate T or F*

- 5. One of the criteria for deciding what to supervise is how important a particular skill is to the health of the refugees.
- 6. Feedback from health workers to supervisors should be discouraged since it may create dissension.

**Exercise**

7. Make a checklist of the tasks you would need to supervise in an outreach immunization program. Organize the list either in the order in which you would be likely to see the tasks performed, or in the order of priority. Think about when you would need to visit the refugee health worker to see the tasks performed, and how often you would need to see the health worker to ensure the high quality of the program.
Meaning and Value of Evaluation

"Evaluation" is the process of determining if the achievements of a program fulfill its objectives. In other words, evaluation finds out how well things are being done. It tries to determine if what was done is what was planned; whether improvement is necessary; and if what has been done well can be replicated elsewhere.

Evaluation is often neglected in refugee health programs because coping with the daily requirements of the situation appears more important, the value of evaluation may not be fully recognized, the data required are not collected or analyzed, or critical guidelines and resources for evaluation are not available at the field level. However, evaluation is a vital step in health programs, and is useful at three levels:

- In making overall policy decisions, for example, whether a pilot program should be replicated in other areas, or modified to conform with a Ministry of Health's new guidelines.
- In making management decisions on whether to compensate workers, or whether to assign additional RHWs to some camp sectors.
- In solving day-to-day operational problems, such as how to quickly train new RHWs to give measles immunizations in the face of a suspected outbreak.

Types of Evaluation

The purpose of evaluation is to measure the success of a training course and to determine the extent to which the learning objectives were achieved. Methods of evaluation fall into two major categories: formal and informal.

Formal methods ask if the learning objectives have been achieved. One method of formal evaluation is the use of performance checklists during the training session. Each step of a task is checked off as the trainee successfully learns to perform it. This provides a uniform method of skills assessment. This checklist should be based on the lesson plans and learning objectives.

Although written exams have traditionally been used as a formal method of evaluating progress, they are not culturally appropriate for the assessment of most trainees, especially since they are biased in favor of literate trainees.
Informal methods of evaluation include the trainers' observations from meetings with trainees to discuss activities. This type of evaluation may help explain why some trainees have performance problems. It is also likely to call attention to a learner's problems before the end of the course, while additional help is still available. Trainees should be encouraged to participate in evaluation. Their feedback through discussion and question-and-answer sessions at the end of each lesson helps trainers determine what the RHWs have just learned. Taking part in evaluation during the course gives trainees the practice and skill they will need for evaluating their own work in the camp or community.

**Methods of Evaluation**

In carrying out an evaluation, certain indicators collected accurately at the beginning of a program (baseline data) can be compared with the same data collected at specified stages throughout the program.

The indicators are selected according to the objectives of the RHW program. General objectives, such as "to improve refugee health," are difficult to evaluate. Examples of specific, quantifiable program objectives include:

- Increasing the utilization of latrines by 50% in each sector in six months
- Decreasing the incidence of water-washed skin diseases by 10% by the end of the dry season
- Fully immunizing 75% of children by their first birthday by the end of the next calendar year

As these examples show, the key to writing good objectives is to make sure each sets a measurable goal, and a time period in which to accomplish it. It is more difficult to evaluate qualitative objectives. For example, collecting information on whether the program increased the refugees' sense of control over their lives may be impossible. Studies aimed at evaluating program performance on the basis of qualitative objectives are not recommended, because no two observers see things the same way. For each objective, you should determine which indicator to measure to demonstrate success, and how to collect the information. For example, if a goal involves increasing immunization coverage, it is necessary to calculate the coverage rates for one or more specific populations, such as children less than one year of age. This information may be available in routine records in immunization clinics or may require a special survey. Data collected and recorded regularly are usually required in quantitative evaluations. The methods used will depend on the objectives. Qualitative objectives may be evaluated by observing, listening, and asking questions, and measuring and counting. Surveys, use of sample households or informants, and/or use of routinely recorded data will probably be required for quantitative objectives. The involvement of the RHWs and refugees in the collection of data will improve the quality and accuracy of most evaluations. It is not always possible to assume that improvements in morbidity or mortality, or in indicators such as immunization coverage, are the result of the RHW program. Any findings must be examined in the light of other economic, agricultural, and public health interventions in the area.

Here is a list of methods which might be useful in carrying out your evaluation.

To assess the immediate impact of a health education session in an informal manner, ask for feedback from members of the audience. If they remember key points during question and answer sessions, or can demonstrate the skills taught, the lesson has been successful. If there are doubts, try to summarize and clarify any misunderstandings before the audience leaves.

To evaluate the long-term impact, it is necessary to determine if there has been a change in the knowledge, attitudes, health behavior or disease incidence of the population. You may find the educational needs assessment useful here, since it provides a baseline against which to measure changes caused by health education.

To determine the extent of changes in knowledge or attitudes, you could conduct a survey, either of a particular audience, or more often, of a random sample of the camp population. For example, before and after a series of educational activities about ORT, you could ask selected mothers if they know about a mixture for treating children afflicted with diarrhea. Any change in the percentage of mothers who know about ORT might be due to the educational effort.
You can also assess changes in behavior and practice by monitoring routine records kept in health facilities, feeding centers, and schools.

Direct observation is another means of assessing a target audience before and after an educational session, to see if a behavior such as washing hands is being modified. You should be wary of this method since people may only modify their behavior when they know they are being observed.

Quantifying the results of a behavioral change is another way to evaluate the impact of educational sessions. For example, measuring the rate of immunization coverage of children under one year of age may indicate whether a vaccination campaign for new mothers has been successful.

Morbidity and mortality statistics may reflect long-term changes in knowledge and behavior. Fewer deaths from diarrheal disease can indicate both a change in mothers' knowledge of the benefits of ORT, and in their behavior which avoids dehydration of children with diarrhea. However, use caution in attributing cause and effect in health indicator changes, as these might also be due to improved camp conditions.

**TRAINER EVALUATION**

As well as assessing the achievements of his students, the trainer also needs to evaluate his own teaching performance. Here is a list of questions which a trainer could ask himself to determine the success of his training course.

| Did the subject relate to the trainees' experience? |
| Did I encourage participation by asking questions and through problem-solving sessions? |
| Did I use teaching plans and materials prepared in advance? |
| Did I know the subject adequately? |

**REPORTS BY RHWS**

In some disaster situations, one of the most useful services an RHW can perform is to report information on the health status of the camp or affected area. Many programs use written forms for this reporting. However, written information should be kept to a minimum, especially for workers with little formal education. If forms are used, include practice in completing them during training.

Figure 6 shows an example of an illustrated monthly report that can be used by semi-literate workers.
Figure 6: Sample monthly report form for refugee health worker (reverse side of form on next page)

**MONTHLY REPORT 2 (front side)**

Village: ______________________  Month: ______________________  Health worker: ______________________

**BIRTHS:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Weight</th>
<th>Number of brothers &amp; sisters</th>
<th>Age of mother</th>
<th>Name of midwife</th>
<th>Did you attend?</th>
<th>Any problems?</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

Did you give a ROAD TO HEALTH CHART to the mother of each newborn baby? YES  NO

**DEATHS:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Cause of death</th>
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</thead>
<tbody>
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</tr>
</tbody>
</table>

**PREVENTIVE MEDICINE:**

Public sanitation

- Number of latrines built this month: ______
- Homes with latrines: ______
- Homes without latrines: ______
- Other activities: ______
- Planned: ______, in progress: ______, Completed: ______

Health education and activities

<table>
<thead>
<tr>
<th>Times</th>
<th>What you did</th>
<th>Attendance</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Family planning and prenatal care

| Number of women who started this month: ______ | Pill: ______, Injections: ______, IUD: ______, Other: ______ |
| Total: ______ |
| Total number of pregnant women: ______ | Number receiving prenatal care this month: ______ |

Under-fives clinic

<table>
<thead>
<tr>
<th>AGE:</th>
<th>0-1</th>
<th>1-2</th>
<th>2-3</th>
<th>3-4</th>
<th>4-5</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

| Did you meet with the health committee this month? YES  NO  With what results? |
|-----------------------------|---------------------------------|-----------------------------|

**Figure 6. Sample monthly report form for refugee health worker (continued from previous page)**

**HEALTH PROBLEMS SEEN THIS MONTH**

<table>
<thead>
<tr>
<th>AGE:</th>
<th>0-1</th>
<th>2-5</th>
<th>6-15</th>
<th>16-40</th>
<th>41-65</th>
<th>over 65</th>
<th>new case</th>
<th>repeat visit</th>
<th>referred to hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colds and flu</td>
<td></td>
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<tr>
<td>Pneumonia</td>
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<td>Other respiratory problem</td>
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<td>Diarrhea and dysentery</td>
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<td>Dehydration</td>
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<td>Vomiting</td>
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<td>Urinary problems</td>
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<td>Roundworm</td>
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<td>Other parasites</td>
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<td>Gastritis or ulcer</td>
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<td>Other belly problem</td>
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<td>Malnutrition</td>
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<td>Anemia</td>
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<td>Skin problems</td>
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<td>Accidents: wounds fractures</td>
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<td>Mumps</td>
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<td>Whooping cough</td>
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<td>Malaria</td>
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<td>Tuberculosis</td>
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**TOTAL PROBLEMS SEEN**

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*The heading "give no medicine" is included to encourage health workers not to give medicine for every problem.*
Now that you have read about the evaluation of health education programs, you may like to evaluate your understanding by completing this self-assessment test. If there are parts that you are not able to answer, we suggest that you go back and look at the relevant parts of this section.

**True/False**

*Indicate T or F*

1. Informal audience feedback is a common method of assessing the immediate impact of a health education activity.

2. A decrease in death rates from diarrhoeal disease that occurs after an educational campaign on treatment of dehydration is obviously attributable to the campaign.

3. Evaluation of a training course should take place only at the end of the course.

4. Formal methods of evaluating the achievements of trainees are more useful than informal ones since the results can be quantified.

**Exercises**

5. State a possible method (surveys, routine data, vital statistics, observation) for evaluating the following educational messages to mothers, and explain your choice.
   • the importance of immunization against measles.
   • need for regular attendance at feeding centers for severely underweight children.
   • environmental hygiene at the camp level.
   • importance of reporting births.

6. Make a checklist of tasks that could be used in a course to make sure that a refugee health worker can perform the necessary skills to run a small immunization clinic.

7. An accelerated immunization campaign is being planned to raise the low coverage of 25% of measles in a drought-affected area to approach the national average of 75% in the next two years. The program is aimed at children less than five in the first year and children less than one after that. Write a general objective and at least one specific objective for each year of the program.

   For each specific objective, state what the indicator will be. In what ways can progress towards the objective be measured (what information is needed, how can it be collected — by survey, from routine records — etc.)?
RHW training programs are an important part of the overall plan for the protection of refugee health. Before a program can be implemented, planners and trainers must determine the specific objectives of the program and decide upon key issues such as the selection and remuneration of trainees. A carefully developed training course plan should state learning objectives for each session, methods to be used, resources and time required, and assessment criteria. Once the plan is put into action, supervision of the RHWs and evaluation of training impact are important to ensure the maintenance of a high quality program. Now that you have finished the work in Unit Two, complete these problems for review.

- List five tasks that an illiterate RHW can carry out in a supplementary feeding center. Rephrase each task into a learning objective, decide the best method to teach each task, how long it will take, and how you will evaluate whether or not the student learned it.
- Draw up the selection criteria for a RHW in a theoretical refugee situation in a country in Africa. Justify each criterion.
- Draw up a checklist that could be used to assess whether a RHW has learned to evaluate the level of dehydration of a child with diarrhea, and whether the child is being treated properly with oral rehydration fluids.
- State three objectives of a RHW program, and the indicators you would use to assess whether the objectives are being met.

CONGRATULATIONS! You have completed the second unit. Now go on to Unit 3.
UNIT 3

Content of Refugee Health Worker Training Courses

Nutrition • Diarrhea • Vaccine-Preventable • Basic Hygiene • Health Event Reporting

Communicable Disease • Vector-Borne • Health Education • Follow-Up • Misc Topics
**CHAPTER 12**

**Content of Refugee Health Worker Training Courses**

**LEARNING OBJECTIVES**

After studying this chapter you should be able to:

- List the most important steps in selecting the content of health worker training programs.
- Name the subject areas which are likely to be included in health education or health worker training programs.
- List learning objectives for each general health topic.
- Identify additional references for each subject.

**INTRODUCTION**

This chapter covers the content of the RHW training program—what you will actually teach in your classes.

The chapter deals with a series of general health topics, such as the prevention and treatment of diseases and the execution of an immunization campaign. Each health topic includes the following parts:

1. A list of learning objectives to be achieved by the RHW after learning about the subject.
2. A series of lesson outlines for various aspects of the general health topic.
3. On-the-job work activities which can serve as a test of the RHW's skills and comprehension.
4. Suggestions for further reading.

In general, disease occurrence in a refugee camp or disaster-affected community will reflect the situation both in the refugees' place of origin and, if different, in the host country. While mortality is often very high in the initial phases of an emergency, the pattern of causes of death generally becomes similar to that of the surrounding area before the disaster. Of course, in a famine nutritional diseases will be prevalent. Whether or not you introduce information about a particular disease in a training course should be determined by the disease frequency, its effect upon the mortality rate, and the availability of preventive and simple curative methods.

When you are constructing a training course for RHWs, bear these important steps in mind:

1. Identify the health-related problems in the refugee population.
2. Assess the knowledge, attitudes, and practices of the refugees.
3. Define the tasks the health worker will perform.

The content and lesson outlines suggested in this chapter pertain to the usual conditions in a refugee or similar long-term disaster situation. In such situations, the major causes of morbidity are often diarrheal and other infectious diseases, malnutrition and nutritional deficiencies, vaccine-preventable diseases of early childhood, acute respiratory tract infections, and skin diseases associated with water availability and use. It is therefore necessary to educate RHWs about these problems.
Nutrition

Learning Objectives

At the conclusion of this training, the RHW will be able to:
- Weigh a child accurately to within 100 grams.
- Measure a child's length or height accurately to within 0.5 cm.
- Measure a child's arm circumference to within 0.5 cm.
- Estimate a child's nutritional status using the weight-for-height (thinness) chart.
- Interpret a child's growth pattern from weight changes recorded on the Child Health Card.
- Decide whether a child should be referred to a supplementary or intensive feeding program.
- Operate a supplementary feeding center.
- Identify children with vitamin A deficiency and those at risk of developing this deficiency, and name the correct dosage for treatment and prevention.
- Identify children and women with anemia and those at increased risk of becoming anemic, and list the actions necessary to treat and prevent anemia.

Lesson Outlines

Basic Nutritional Concepts
1. Functions of the different nutrients in human nutrition.
2. How to balance a diet with correct proportions of different foods.
3. Nutrition of special groups: infants, small children, pregnant women; concept of vulnerable groups.
4. Prevention and treatment of nutritional deficiencies common in refugee and similar emergencies, such as anemia, scurvy, and Vitamin A deficiency.
5. Nutritional care during illness.
6. Growing vegetables and keeping animals to improve nutrition.

Feeding of Infants and Small Children
1. Importance of enough breast-milk for the first several months of life.
2. Superiority of breast-feeding over artificial formulas.
3. Dangers associated with feeding bottles.
4. Common beliefs that discourage breast-feeding and how these can be overcome.
5. How to establish a wet-nurse program.
6. How to help mothers re-establish or improve breast-feeding.

Basic Rations
1. Definition and purpose of general rations.
2. Content of rations; quantity and frequency of distribution.
3. Preparation of foods in the ration, for example, grinding whole grains or soaking beans.
4. Weights and measures for distributing food.
5. Preparation of weaning foods from basic rations.
6. Recording information on ration cards and inventory control.
9. Evaluation of basic rations through home visits and other observation.

Supplementary Feeding Programs
1. Definition and purpose of supplementary feeding programs.
2. Determining eligibility of beneficiaries.
3. Norms for number of feedings, times, quantities.
4. Establishing discharge criteria.
5. Preparation of common supplementary foods.
8. Measuring arm circumference.
9. Using a "thinness chart".
12. Food and water hygiene in feeding programs.
14. Administering supplements of Vitamin A, iron, etc.
15. Administering anti-helminthics.
17. How to carry out a nutrition demonstration in a feeding center.
18. Maintaining supplies and equipment.
19. Home visiting to follow-up non-attenders.
20. Record-keeping for monitoring and evaluation.

**Intensive Feeding Programs.**

1. Definition and purpose of intensive feeding programs.
2. Determining eligibility for admission.
3. Norms for number of feeds, times, quantities, frequency of progress assessment.
4. Establishing discharge criteria.
5. Preparing special foods for severely malnourished children.
7. Use topics (vii) to (xx) from the Lesson Outline (D) for Supplementary Feeding Program.

**Nutritional Surveillance**

1. When and where to carry out surveillance activities.
2. Easily-recognized signs and symptoms of malnutrition in children and adults.
3. Making referrals to feeding programs.
4. Assisting in nutritional surveys.

**Work Activities for RHWs**

1. Measure various foods using local containers.
2. Weigh a child, determine the child’s nutritional status using a thinness chart, and decide whether to admit the child to an intensive or supplementary feeding program.
3. Carry out an informal survey of nutritional status by observing children in 20 houses for signs of nutritional deficiency.

**Further Reading**

More about teaching RHWs about nutrition:


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**Diarrhea**

**Learning Objectives**

At the end of training course, the RHW will be able to:

- Demonstrate the preparation of oral rehydration solution and other aspects of diarrhea case management.
- Describe how to assess dehydration in young children.
- Select children for treatment in an oral rehydration center.
- List the reasons why hand-washing prevents diarrhea.

**Lesson Outlines**

**Diarrheal Disease and Dehydration**

1. Definition of diarrhea.
2. Prevention of diarrhea.
3. Definition and assessment of dehydration.
5. How to mix oral rehydration solution using standard packets.
6. How to mix an oral rehydration fluid using locally available ingredients.
7. How to teach mothers about ORT in the home.
8. Administering oral rehydration fluids: when to give; in what quantities; how to encourage a small child to drink.
10. Importance of continued feeding during diarrhea.
11. Special care of children after diarrhea.
12. When to seek further help.
13. Use of drugs in special types of diarrhea only, e.g. dysentery.

**Oral Rehydration Centers**
1. Purpose of oral rehydration centers.
2. Where to locate a rehydration center.
3. Who to refer to a rehydration center.
4. Maintaining supplies and equipment.
5. Hygiene at a rehydration center.
6. Record-keeping for monitoring and evaluation.
7. Use topics 7 to 13 from Diarrhoeal Disease and Dehydration.

**Preventing Diarrheal Disease in the Community.**
1. Diarrheal disease transmission.
3. Community actions for prevention: Reasons to use latrines.
4. Maintaining a clean environment, especially where food is prepared and served.

**Work Activities for RHWs**
1. Mix an oral rehydration fluid using local containers.
2. Find out what treatment refugees normally give to children with diarrhea by observation and informal questioning, and decide which of these behaviors should be encouraged.
3. Prepare a talk to a camp sector on the importance of hand-washing important in the prevention of diarrhea.

**Further Reading**

For more about teaching RHWs about diarrhea:

**Vaccine-Preventable Diseases**

**Learning Objectives**

At the end of the training course, the RHW will be able to:
- Name the recommended immunizations for small children, the diseases they prevent, and the ages at which they should be administered.
- Demonstrate how to pack a vaccine carrier for an outreach immunization session.
- List three ways to encourage participation in immunization programs.

**Lesson Outlines**

**Diseases Preventable by Immunization**
1. Definition, diagnosis, and treatment of measles.
2. Definition, diagnosis, and treatment of whooping cough.
3. Definition, diagnosis, and treatment of neonatal tetanus.
5. Definition, diagnosis, and treatment of tuberculosis.
7. Information on other diseases, such as meningitis, for which immunization is sometimes given.

Immunizations
1. Purposes of immunization, and how it prevents disease.
2. The effect of immunization on the death rate for vaccine-preventable diseases, with special attention to the measles vaccination.
3. Available vaccines and ages to administer them.
4. How to administer oral and injectable vaccines.
5. Hygiene, including reusable and disposable syringe use.
6. The cold chain, and its importance in the adequate transportation and storage of vaccines.
8. Immunization and AIDS.

Organizing an Immunization Session
1. Calculating vaccine and supply and equipment requirements.
2. Organizing patient flow.
3. Screening patients for vaccination needs; eliminating lost opportunities for immunization.
4. Record-keeping for monitoring and evaluation.
5. Protecting vaccines during the session.

Other Preventive Measures
1. Hygiene during child-birth to prevent neonatal tetanus.
2. Treatment of wounds and other first aid, related to tetanus prevention.
3. Prevention of spread of disease: covering the mouth when coughing, staying out of crowds when ill, and avoiding food prepared by sick individuals.

Control of Outbreaks
1. Recognizing an outbreak.
2. Reporting and confirming cases.
3. Organizing a mass vaccination campaign.
4. Quarantine and containment measures, such as suspension of group activities.

Assessing Coverage and Impact
1. Maintaining and interpreting routine immunization records.
2. Immunization coverage surveys.

Work Activities for RHWs
1. Assess vaccination status by card or mother's history of children attending clinic.
2. Prepare an educational activity for refugee leaders to encourage them to participate in immunization campaigns.
3. Talk to traditional birth attendants to find out if they routinely protect the babies they deliver from neonatal tetanus.

Further Reading
For more about teaching RHWs about vaccine-preventable diseases, we suggest the following:

Centers for Disease Control. 1986. Training Course for Instructors in Combating Childhood Communicable Diseases: Target Diseases. CDC, Atlanta.


Personal Hygiene
1. Reasons why personal hygiene is important in refugee camps and similar crowded situations.
2. Importance of hand-washing to prevent diarrheal disease.
3. Importance of washing children's eyes to prevent eye disease.
4. Local methods to prevent dental disease.
5. Location of bathing points and clothes-washing areas.

Food Hygiene
1. Reasons why food hygiene prevents disease.
2. Importance of covering food and storing it safely.
3. Cleaning and drying utensils.

Domestic Hygiene
1. Reasons to maintain a clean home.
2. Elimination of rubbish.
3. Containment of animals.

Work Activities for RHWs
1. Inspect a sector of the camp or community to identify possible risks to health because of lack of environmental hygiene, and decide on various ways to reduce these observed risks.
2. Prepare an educational activity for mothers on the importance of hand-washing before feeding small children.
3. Find all the possible water sources in the camp or affected area, and determine which are the safest and why.

Further Reading
For more about teaching RHWs basic hygiene
Chapter 12: Content of Refugee Health Worker Training Courses

Work Activities for RHWs

1. Complete a weekly case report summary on births and deaths in a camp sector or community.
2. Look through the registry of a health facility and find all the cases of measles during one month, and categorize by age and location.

Further Reading

If you would like to read more about teaching RHWs about health event reporting, we suggest the following:


Health Event Reporting

Learning Objectives

At the end of this training, the RHW will be able to:

- Name the diseases that should be reported to the health committee and/or government health authorities.
- Define one of the diseases for which active surveillance is carried out.
- Name three reasons why refugees might not report a death in the family.

Lesson Outlines

Disease Surveillance

1. Definition and purpose of surveillance.
2. Difference between active and passive surveillance and uses of each in the camp or disaster-affected community.
3. Definition of diseases to be reported and identification of cases in the community; importance of cause of death data.
4. Definition of an epidemic in terms of diseases of special importance.
5. Reporting cases by place, time and person.
6. Summarizing information over long time periods.

Vital Statistics

1. Definition and need for reports on birth, death and migration.
2. Incentives and disincentives for reporting births.
3. Incentives and disincentives for reporting deaths.
4. Verification of vital events through home visits and talks with traditional birth attendants.
5. Reporting vital events to camp authorities.

Control of Communicable Disease Outbreaks

Learning Objectives

At the end of this training, the RHW will be able to:

- State the methods used to identify an outbreak of measles.
- Describe the control measures to be taken in the event of outbreaks of particular diseases.

Lesson Outline

Control of Outbreaks

1. Definition of an outbreak.
2. How health education prevents disease transmission.
3. Control measures for specific diseases: measles, cholera and other diarrheal diseases, whooping cough, etc.
Work Activities for RHWs

1. Prepare a health presentation for the members of a camp sector about the methods to prevent an outbreak of diarrheal disease from becoming generalized.

Further Reading

If you would like to read more about teaching RHWs about the control of communicable disease outbreaks, we suggest the following:


Malaria

1. Definition, prevention, and diagnosis of malaria.
2. Presumptive treatment for children and pregnant women.
4. Treatment of malaria cases.
5. Chloroquine resistance and appropriate treatment strategies.

Work Activities for RHWs

1. Inspect one sector of the camp or community and identify breeding sites of disease-causing vectors. Help the refugees destroy the breeding sites.
2. Discuss the effects of home visiting or dispensing of tablets at the feeding center upon the encouragement of malaria prophylaxis.
3. Prepare a lesson for mothers on the benefits of early presumptive treatment of fever in young children.

Further Reading

If you would like to read more about teaching RHWs about the control of vector-borne diseases, we suggest the following:


Vector-Borne Diseases

Learning Objectives

At the end of this training, the RHW will be able to:
- Name the important vector-borne diseases and the vectors which spread them.
- Identify the places where common vectors live and breed, and the methods to destroy their breeding sites.
- Explain how to prevent malaria.
- Name the correct dosage of chloroquine to treat a child with fever.

Lesson Outlines

*Control of Vectors*

1. Definition of a vector, and identification of common vectors in the camp or community.
2. Description and prevention of common vector-borne diseases.
3. Use of domestic and camp hygiene to eliminate disease breeding.
Health Education

Learning Objectives

At the end of this training, the RHW will be able to:

1. Name the steps in planning a health education activity.
2. Select appropriate methods for different audiences.
3. Identify or make teaching aids for different methods.

Lesson Outlines

Planning Health Education Activities.

1. Importance of health education for prevention of disease and efficient use of resources.
2. Selection of relevant topics for various groups.
3. Available methods for use with individuals, groups and mass campaigns.
4. How to make and/or adapt suitable teaching materials.
5. Using audio-visual and other aids.
8. Identification of resident groups, such as religious, political, or women’s groups, willing to assist in health education.

Work Activities for RHWs

1. Prepare a lesson for mothers on treatment of diarrheal disease. State the specific topic, the methods to be used and the teaching materials. Describe where and when the talk can be held to ensure an appropriate and attentive audience.

2. Visit a school and discuss with the teacher how and when it would be possible to carry out a lesson or demonstration with the students. Prepare and present an educational activity on treatment of diarrheal disease, aimed at school children.

Further Reading

For more about teaching RHWs about health education, we suggest the following:
Centers for Disease Control. 1986. Training Course for Instructors in Combating Childhood Communicable Diseases: Community Health Education. CDC, Atlanta.

Outreach Activities for Patient Follow-up

Learning Objectives

At the end of this training, the RHW will be able to:

- Name and describe five diseases that require long treatment schedules.
- Explain the importance of following-up of patients who do not comply with continued treatment.

Lesson Outlines

Patient Follow-up

1. Reasons why some diseases require long-term treatment, and the importance of continuing medication in these cases.
2. Other conditions that should be monitored, for example, high risk pregnancies.
4. Techniques of home visiting and counselling patients.
5. Reporting patient compliance.

**Work Activities for RHWs**

1. Carry out a role-play with one student as a patient with tuberculosis who has stopped treatment, and the other as a counsellor encouraging the patient to resume treatment.
2. It is not always necessary for a patient to visit a health facility for treatment. Discuss alternatives such as dispensing drugs during home visits.

**Further Reading**

For more on teaching RHWs about Outreach activities for patient follow-up:


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**HEALTH TOPIC 1**

**Acute Respiratory Infections (ARI)**

1. Definition and treatment of ARI.
2. Causes and preventive measures in refugee camps and similar crowded situations.
3. Educational messages for mothers related to ARI.

**Further Reading**

*ARI News*, 1983-present. Published by AHRTAG.

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**HEALTH TOPIC 2**

**Skin Diseases**

1. Types of skin diseases in the refugee camp or disaster-affected community.
2. Diagnosis and treatment of common skin problems.
3. Causes and prevention of skin diseases.
4. Health education messages to promote prevention and effective self-care.

**Further Reading**


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**HEALTH TOPIC 3**

**Helminthic (Worm) Infections**

1. How to identify and distinguish between the most prevalent and harmful helminths (worms).
2. Causes and prevention of worm infestations.
3. Treatment of helminth-caused diseases.
4. Deciding between individual treatment or community deworming.
5. Associated conditions, such as anemia.
6. Importance of wearing sandals or shoes to prevent hookworm.

**Further Reading**


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**Miscellaneous Health Topics**

In this section, we will suggest Lesson Outlines and references for various other health topics that may be encountered in a disaster situation. Since these topics may be encountered less frequently than the problems discussed in the earlier sections, we have put them all together. This does not, of course, mean that they are less important.
**Health Topic 4**  
**Sexually Transmitted Diseases**  
3. Treatment of newborns.  
4. Long-term effects if untreated.

Further Reading  

**Health Topic 5**  
**Acquired Immune Deficiency Syndrome (Aids)**  
1. Definition and modes of transmission.  
2. Prevention.  
3. Referral and treatment facilities.

Further Reading  

**Health Topic 6**  
**Snake, Dog, and Insect Bites**  
1. Identification of types of poisonous snakes and insects in vicinity.  
2. How to tell if a dog has rabies.  
3. Prevention of bites by use of protective clothing, avoidance of certain areas, and immunization or restriction of mobility of animals.  
4. Cleansing and dressing bites to prevent infection; where and when to obtain injections if necessary.

Further Reading  

**Health Topic 7**  
**First Aid For Cuts, Fractures and Wounds**  
1. Cleansing and dressing cuts and wounds to prevent infection.  
2. Stopping severe bleeding.  
3. Transporting an injured person.

Further Reading  

**Health Topic 8**  
**Care of Pregnant Women**  
1. The normal pregnancy and delivery.  
4. Care of the mother and baby at birth, and prevention of neo-natal tetanus.  
5. When and where to refer problems during labor or after birth.  
6. Post-natal check-ups.

Further Reading  


**Health Topic 9**

**Tuberculosis (Tb)**

1. Causes, modes of transmission, and symptoms of TB.
2. Prevention: immunization, control of active cases, nutrition, and prophylaxis of contacts.
3. Treatment: reasons why long-term treatment is necessary, alternative regimens, reasons why treatment may fail.
4. Organizing a tuberculosis control program: situations where control programs are not advisable, case-finding, laboratory facilities, control of drug supply, patient follow-up and counselling.

Further Reading


**Health Topic 10**

**Issues in the Use of Medicines**

2. Side effects of drugs, and dangers of self-prescription and over-prescription.
3. Dangers of injections, and ways to limit their use.
4. Development of resistance and reasons why drugs should be taken for the prescribed time and dosage, especially anti-biotics, anti-malarials and drugs for diseases such as tuberculosis, and leprosy.
5. Proper use of vitamins and tonics.

Further Reading

Werner D. 1977. *Where There is No Doctor*. The Hesperian Foundation, Palo Alto, California. Chapter 5, Healing without Medicines; Chapter 6, Right and Wrong Uses of Modern Medicines; Chapter 7, Antibiotics: What They Are and How to Use Them; Chapter 8, How to Measure and Give Medicine; Chapter 9, Instructions and Precautions for Injections.

**Health Topic 11**

**Mental Health**

1. Common problems among disaster-affected populations.
2. Dealing with mental health problems: how a health worker can help, some problems better dealt with by religious leaders, or community organizations.

Further Reading

Now that you have explored the content of training courses for Refugee Health Workers, you may evaluate your understanding by completing this self-assessment test. If there are parts you are not able to answer, we suggest that you go back and revise the relevant parts of this chapter.

**Multiple Choice**
*Circle the correct answer*

1. The content of a health worker training program should be determined by:
   a. the skills of the trainers
   b. the tasks the health worker will be expected to perform
   c. the length of the course
   d. the number of expatriate supervisors available

**True/False**
*Indicate T or F*

2. The health pattern in a refugee community in the static phase of a disaster is likely to be similar to that of the surrounding community.

**Exercises**

3. There has been a refugee camp in Latin America for two years, but no refugee health workers have yet been trained. The camp contains about 20,000 persons, mostly women and children.

   There are no special feeding programs, since basic nutritional needs are met by a general ration of familiar foods and those severely malnourished when they entered the camp have recuperated.

   The area has an adequate water supply and latrines, although the latter aren't always used. In many ways the camp resembles a small rural town in its disease pattern; the main problems are preventable diseases of childhood and pregnancy-related disorders. During the rainy season malaria is very common.

   What, in your opinion, would be the three or four priority subjects for a refugee health worker training program? If you could gather more information, how would you determine whether these topics were in fact of highest priority?

4. Select one of the health topics that we discussed in Unit Four. Based on its Lesson Outline, develop a detailed plan for a health education talk on the subject to a refugee audience, and for teaching the subject to health workers with a minimum level of literacy.
Resources


World Health Organization. 1984. *Immunization in Practice: A Guide for Health Workers Who Give Vaccines*. World Health Organization, Geneva. (Modules include: Vaccines and When to Give Them; Syringes, Needles and Sterilization; How to Give Vaccines; Preparing for an Immunization Session; How to Conduct an Outreach Immunization Session; Health Education in an Immunization Program; How to Evaluate Your Own Immunization Program.)


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FURTHER READING

The following is a list of resources suggested throughout this course. Refer to them for additional information on topics of particular interest.


DISASTER & REFUGEE HEALTH ORGANIZATIONS

Organizations involved in disaster and refugee health issues. Many of these organizations publish the readings suggested in this course.

AHRTAG
85 Marylebone High Street
London W1M 3DE, UK

African Medical and Research Foundation (AMREF)
PO Box 30125
Nairobi, Kenya

Centers for Disease Control (CDC)
International Health Program Office
1600 Clifton Road
Atlanta, GA 30333, USA

Christian Medical Commission
1511 route de Ferney
CH-1211 Geneva 20
Switzerland

The Hesperian Foundation
PO Box 1692
Palo Alto, CA 94302, USA

INTERTECT
PO Box 565502
Dallas, Texas 75356, USA

London School of Hygiene & Tropical Medicine
Keppel Street (Gower Street)
London WC1E 7HT, UK

Pan American Health Organization (PAHO)
Emergency Preparedness & Disaster Relief Coordinator
525 Twenty-Third Street, NW
Washington DC 20037, USA

Population Information Program
The Johns Hopkins University
Hampton House
624 North Broadway
Baltimore, Maryland 21205, USA

TALC
Institute of Child Health
30 Guilford Street
London WC1N 1EH, UK

UNHCR
Palais des Nations
CH-1211 Geneva 10, Switzerland

UNICEF
UNICEF House
3 United Nations Plaza
New York, NY 10017, USA

World Health Organization
Avenue Appia
1211 Geneva 27, Switzerland

ABBREVIATIONS

AHRTAG  Appropriate Health Resources & Technologies Action Group Ltd.
AIDS  Acquired Immune Deficiency Syndrome
ARI  Acute Respiratory Infection
CHW  Community Health Worker
ORS  Oral Rehydration Salts
ORT  Oral Rehydration Therapy
PHC  Primary Health Care
RHW  Refugee Health Worker
TALC  Teaching Aids at Low Cost
UNHCR  Office of the United Nations High Commissioner for Refugees
UNICEF  United Nations Children’s Fund
1. MAKING YOUR OWN TEACHING AIDS FROM LOW-COST MATERIALS

Example: Learning about childbirth

LESS APPROPRIATE

Some programs use an expensive plastic model of a woman's hips to teach health workers or midwives about childbirth. Although such models look natural and are easy to practice with, they are not something health workers can make in their villages to teach local people. (photo from Venezuela)

MORE APPROPRIATE

A surprisingly lifelike model for teaching about childbirth can be made by cutting and painting a cardboard box. Health workers or midwives can make this 'birth box' at almost no cost. The back flap, cut to look like breasts, is used to teach the importance of putting the baby to the breast right after birth. This helps to deliver the placenta and reduce bleeding.

STILL MORE APPROPRIATE

In these photos, student health workers and a midwife act out a birth. (Mexico)

Teaching about birth can become even more lifelike with the use of two local resources: a student and a pair of old pants. The student dresses like a woman about to give birth, and has a doll 'baby' hidden in her clothing. The pants are cut to form a 'birth opening'. The student wears other pants underneath to avoid embarrassment. If possible, sew elastic around the opening so it will stretch.

In this way, the students can explore the hope, fear, pain, and joy of childbirth. They learn about the mother's feelings, as well as the mechanics of delivery. By using real people, students learn to feel more relaxed about this natural process.

2. MAKING TEACHING AIDS BY BUILDING ON SKILLS PEOPLE ALREADY HAVE

Example: Making a large Road to Health chart for a flannel-board

If mothers, midwives, or students with little formal education are asked to draw a complicated chart, they may find it very difficult. They may feel foolish or ashamed because drawing charts is something they have never done before.

Mothers who have had little schooling try to draw a large teaching model of a Road to Health chart (see WTND, p. 299).

MORE APPROPRIATE

Mothers and students make a teaching model of a Road to Health chart by sewing ribbons and threads onto a big piece of flannel.
(Project Plaxtla, Mexico)

Here, however, some mothers and students are making a chart by sewing rather than drawing the lines. Because they are using a skill they already have and enjoy (decorative sewing), some of the strangeness, or magic, is taken out of chart making from the beginning.

In this way, the students develop a new skill by building on an old one. They feel confident and proud to put their traditions and knowledge to use in new ways. Where you live, people may be skilled in weaving straw mats or cloth, dying cloth (batik), or carving wood. Any of these traditional skills could be used to make a large teaching model of a Road to Health chart. (In some regions, of course, people may have more experience in drawing. In that case, it would make more sense to draw the chart.)
3. INVOLVING STUDENTS IN MAKING THEIR OWN TEACHING AIDS

Example: Health posters

LESS APPROPRIATE—
poster made by outside artist

MORE APPROPRIATE—
poster made by outside artist

Las Vacunas Son Salud
Llee a Sus Hijos a Vacunar

MEDICINAL PLANTS

Many programs use posters made by professional artists when drawings by health workers and other local persons might work as well and involve people more.

However, it may make sense to use some professionally made posters and displays, especially when details are important.

Instructors or a local artist can help students learn to draw or copy pictures (see p. 12-9). The health workers can then help school children to make posters about health subjects. The best posters can be displayed in public. This way, the health workers and the children learn the messages of the posters extra well. They also learn a valuable skill—drawing—and have fun at the same time.

MORE APPROPRIATE

Health worker showing children how to make health posters.

Poster made by school child.
4. USING REAL PEOPLE OR OBJECTS INSTEAD OF JUST DRAWINGS

Example: Snakebite

LESS APPROPRIATE

For the CHILD-to-child activity on preventing accidents (see p. 24-7), a school teacher in Ajoya, Mexico used drawings to show the difference between the bites of poisonous and non-poisonous snakes.

But a local health worker drew red fang marks right on a child's arm. This made the lesson much clearer.

STILL MORE APPROPRIATE

It is even better if you can show students the teeth of live snakes (be careful!) or the skulls. A skull can be cleaned of flesh by putting it on an ant hill for a day or so, and then soaking it in potash (water with ashes) or lye.

Discovering why cuts for treating snakebite should be lengthwise:

Instead of simply using drawings to show that cuts made over the fang marks should be lengthwise, health workers in Ajoya helped students discover the reason for themselves.

They made a cardboard leg and drew fang marks on it. On the back they taped a square of cardboard wrapped with thread, to represent the muscles, tendons, and nerves in the leg.

They asked students to make cuts about \( \frac{1}{2} \) cm. deep over the fang marks. Then they looked on the back to see what the cuts had done to the 'nerves, tendons, muscle fibers, and blood vessels'.

CUT LIKE THIS

The students discovered that the lengthwise cuts did little damage.

But crosswise cuts damage many 'muscles, tendons, and nerves'.

NOT LIKE THIS

With this method, students discover the correct way through their own actions. So they do not forget.

Similar teaching aids can be used to help health workers learn why deep wounds that cut crosswise often need more expert suturing than deep wounds that are cut lengthwise.
5. DRAWING PARTS OF THE BODY (AND SIGNS OF HEALTH PROBLEMS) ON PEOPLE, NOT PAPER

Example: Anatomy of the belly or chest

Drawing anatomy on paper or on the blackboard makes things not only flat, but dull.

MORE APPROPRIATE

Drawing the inner parts or organs of the body directly on a person has 3 advantages:
- It is more interesting, and therefore easier to remember.
- The organs are seen in relation to the rest of the body and appear more lifelike.
- It is a good way to get students to feel more comfortable about touching and examining each other—and eventually a sick person.

MORE OR LESS APPROPRIATE

Whenever possible draw on people, not paper.

LESS APPROPRIATE

One disadvantage of drawing on people in class is that it takes time.

A quicker way is to use T-shirts with drawings of different body systems already on them: one for the digestive system, one for the bones, one for the heart and blood system, and so on.

T-shirts with anatomy printed on them can be purchased in some countries. But these may be expensive and more detailed than you need. It is better to draw or paint the anatomy on T-shirts with your student group. You can even try 'silk screening' them using the method described on page 16-12.
6. TEACHING NEW SKILLS OR IDEAS BY COMPARING THEM WITH THINGS THAT ARE FAMILIAR

Example: **Thumping (percussing) the lungs**

When teaching about physical exam or respiratory problems, you probably will want to explain where the lungs are and how they work. For this, it helps to draw the lungs on a student, as shown on page 11-7. Draw them on both the chest and the back.

To determine the size of the lungs, show students how to thump or percuss the back, listening for the hollow sound of air in the lungs. Draw the bottom line of the lungs first when they are as empty as possible, and then when they are full. Students will see how the movement of the diaphragm (a muscular sheet below the lungs) affects breathing and lung size (also see p. 11-13).

By doing this, students not only learn about the position, size, and work of the lungs, they also learn a useful skill for physical examination—thumping the lungs to listen for relative hollowness. This can help them spot signs of disease.

To help students understand the different sounds they hear when thumping, have them determine the level of water (or gasoline) in a large drum or barrel.

Then thump the chest of a student.

Next, compare with a person who has a solid (diseased) area or liquid in a lung.

If possible, also show the students X-rays of normal and diseased lungs.
7. MAKING TEACHING AIDS AS LIFELIKE AS POSSIBLE

Example: The belly wrinkle test

When teaching mothers and children about the signs of dehydration, health workers can tell them about the 'belly wrinkle test', or even show drawings like this:

It is much better, however, if students actually do the test and find out how it works.

Students can practice doing the test on the back of someone's hand. (The hand of an older person works better than the hand of a child.)

MORE APPROPRIATE (ACTUALLY DOING IT)

In this position, wrinkles will not stay after the skin is pinched.

Pinch here. Wrinkles disappear.

This is like the skin on the belly of a healthy baby.

But in this position, the pinched skin stays wrinkled for a moment—just as on the belly of a dehydrated child.

Wrinkles stay.

This is like the skin on the belly of a dehydrated baby.

When you show the belly wrinkle test to children, make sure they realize that the test should be done on the belly of a baby, not on the hand. You can have the children make a doll like this, out of an old glove or stocking and an egg.

STILL MORE APPROPRIATE

When the 'belly' is pinched, the wrinkle stays.

Using a doll like this makes the test more realistic. It also turns learning into a game.
8. TEACHING AIDS THAT REQUIRE DOING AS WELL AS SEEING

Example: Closing a cut or wound

The poster at right is adapted from a drawing in *Where There Is No Doctor* (p. 84). It shows, step by step, how to make butterfly bandages and close a wound.

But it does not, by itself, give students a chance to learn through practice. Students see how something is done, but they do not actually do it.

MORE APPROPRIATE

A lifelike way to practice closing wounds is to have someone wear a tight-fitting rubber (surgical) glove. Make a cut in the glove, and color the skin under the cut red to make it look like blood.

The rubber glove tends to stretch and pull apart like real skin. The students can prepare butterfly bandages and close the 'wound' by pulling the sides of the cut together.

The students can also practice sewing or suturing a wound using the same rubber glove. As with a real wound, care must be taken with the placement and tension (pull) of the thread in order to avoid tearing or bunching up the delicate 'skin'.

LESS APPROPRIATE

If you do not have surgical gloves, try using a large balloon. Cut holes for the fingers, like this. And wear it like this. But be careful. It tears easily.
A common mistake when suturing wounds is to make the stitches too shallow. If the wound is not completely closed inside, it heals more slowly and is more likely to become infected.

**EVEN MORE APPROPRIATE**

Unfortunately, the rubber glove teaching aid does not let students practice deep suturing. A better teaching aid for this can be made by wrapping a piece of foam rubber or thick felt around someone's arm. Make a deep cut in the foam and color it red.

Foam rubber helps students learn how deep to sew stitches.

Students will learn even better if they can practice on real wounds. It is, of course, best if they do not practice on people until they have gained some skill. Try to use freshly killed animals—especially pigs.

(In the Philippines, health workers make cuts and practice suturing on live dogs. But this also teaches them that cruelty can sometimes be justified. Do you think this is right?)

**STILL MORE APPROPRIATE**

Students practice closing a wound on a dead pig.

**MOST APPROPRIATE (after learning the skill through other practice)**

After students have had plenty of practice, they should be given every opportunity to close real human wounds—even if this sometimes means interrupting a class.

In this photo, student health workers are helping to close the head wound of a boy hit by a rock.

(Ajoya, Mexico)
9. MAKING TEACHING AIDS FASCINATING AND FUN—
ESPECIALLY THOSE USED WITH CHILDREN

Example: Diarrhea and dehydration

Drawings like these contain important ideas. But children, especially, may have trouble understanding them. Also, they are not much fun—even when actual pots are used along with the drawings.

LESS APPROPRIATE

A CHILD IS LIKE A POT OF WATER

Water tap
Pot emptying (dehydration)

Tap still on
Leak (diarrhea)

Pot nearly full (mend leak with food)

Leak less (diarrhea is less)

Pot full

Leak stopped

Pot filling (rehydration 4-6 hours)

We make the pot wall thick by better nutrition.

DIARRHEA PREVENTION

Tap turned on when needed

MORE APPROPRIATE

CLAY BABY—
This can be made with the help of mothers who make their own pottery.

GOURD BABY—
Gourds of this shape are grown in many parts of the world for use as water jugs.

The children then experiment with the model baby to find out about dehydration. Because they make their own teaching aid and discover answers for themselves, learning becomes an adventure. It is fun and they never forget what they learn.

Children in Ajoya, Mexico use a gourd baby to demonstrate signs of dehydration.
10. USING TEACHING AIDS THAT GET STUDENTS TO FIGURE THINGS OUT FOR THEMSELVES

Example 1: Learning about injuries to the chest and lungs

The pictures to the right are taken from a popular Venezuelan health magazine called Sere. They show how the movement of the diaphragm (the muscular sheet below the lungs) helps the lungs fill with air.

In the mountains of Mexico, gunshot and knife wounds to the chest are common. If air is being sucked through the wound when the person breathes, the hole should be covered at once with an air-tight bandage. (See WTND, p. 91). To help students discover why this is important, the instructors in Ajoya designed a teaching aid based on the idea shown above.

1. They drilled a small hole in a glass bottle (using a dental drill).
2. They put a balloon in the bottle and blew it up. Then they plugged the hole with wax.
3. They asked the students to pretend the bottle was a man's chest and the balloon his lung. The students were amazed that the balloon stayed full of air although it was open at the top. (They discovered the principle of the vacuum.)
4. To show why it is important to cover a chest wound at once, a student slowly sucked the air out of the bottle until the 'lung' filled up again. (In the body, the air is slowly absorbed.)

One student then stabbed the 'chest' (through the small hole), and the 'lung' inside collapsed.

As long as the student kept the hole covered, the 'lung' stayed full. So the students discovered why an air-tight bandage is important.

Example 2: Mouth-to-mouth breathing

Students can use the following model to find out how mouth-to-mouth breathing works and practice doing it.

Cut holes in a plastic bottle, like this or like this.

Paint it to look like a head.

Use a piece of old bicycle inner tube to attach it to a cow's bladder or a plastic bag.

One person gives mouth-to-mouth breathing while another presses on the 'chest' as it rises and falls.

A still better way to learn about mouth-to-mouth breathing, of course, is for students to practice on each other.
11. USING IMAGINATION TO DEVELOP NEW TEACHING AIDS

Example: Setting broken bones

The poster on the right is from page 98 of *Where There is No Doctor*. It gives an idea of how to set a broken arm, but does not provide students with a chance to practice it—to learn by doing.

MORE APPROPRIATE

An experienced village health worker, Pablo Chavez, and his students invented the following teaching aid:

1. They found an old glove, and three sticks about the size of arm bones.

2. They broke two of the sticks.

3. Then they fastened them back together with tightly stretched pieces of an old inner tube (rubber).

4. They put the sticks inside a stocking, and packed it with wild kapok to make an 'arm'.

5. The 'arm' was tied to a person's neck in such a way that it looked natural.

6. Students then practiced setting the broken 'bones'. Just as with a real break, two persons had to stretch the arm while a third person positioned the bones.
12. KEEPING TEACHING AIDS SIMPLE, SO THAT STUDENTS CAN MAKE THEIR OWN FOR TEACHING IN THEIR COMMUNITIES

Example: Cardboard babies

A set of life-size ‘babies’ cut out of cardboard can be used for teaching many things in many ways.

The ‘babies’ should be drawn and colored to look as lifelike as possible. If students find it hard to draw realistically, they can copy or trace the program’s teaching models.

Ways of using the cardboard babies:

1. On flannel-boards. You can paste flannel on the backs of the cardboard babies and use them for many different flannel-board presentations. Here the babies are shown with different kinds of worms. The worms and the labels are also cut out of cardboard. (For other flannel-board ideas, see the Index.)

2. In role playing. For classroom learning, health workers can act out the diagnosis, treatment, and prevention of different health problems. The use of cardboard babies makes the role play more fun and more realistic. (See Chapter 14.)

3. For public plays and farmers’ theater. The cardboard babies can be used on stage instead of real babies. See the play on “The Importance of Breast Feeding,” page 27-31.
COURSE EVALUATION

Self-Study course: Health Education and Training of Refugee Health Workers

1. What is your present position?

2. How many years have you spent in disaster-related work?

3. How many years of formal education do you have?
   ____ 0 to 6 years  ____ 12 to 16 years  ____ 7 to 12 years  ____ more than 16 years

4. How was the level of content in this course?
   ____ too difficult  ____ about right  ____ too easy

5. Was the course material relevant to your work?
   ____ yes  ____ no

6. How useful to you were the various components of the course? (Circle)
   
<table>
<thead>
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<th></th>
<th>Very Useful</th>
<th>OK</th>
<th>Not Useful</th>
</tr>
</thead>
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<tr>
<td>Study Guide</td>
<td>____ 1</td>
<td>____ 2</td>
<td>____ 3</td>
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<td>____ 3</td>
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<tr>
<td>Self-Assessment Tests</td>
<td>____ 1</td>
<td>____ 2</td>
<td>____ 3</td>
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7. How valuable to you was the total course? (Circle)
   
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<thead>
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<th></th>
<th>Very Valuable</th>
<th>Of Some Value</th>
<th>Not Valuable</th>
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8. Additional comments:

Please return this to:
Disaster Management Center
Department of Engineering Professional Development
University of Wisconsin-Madison
432 North Lake Street
Madison, WI 53706 U.S.A.

Thank you for taking a moment to complete this course evaluation.