
GUIDELINES FOR TRAINING COMMUNITY HEALTH WORKERS IN NUTRITION



SECOND EDITION



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Guidelines for Training Community Health Workers in Nutrition

Second edition



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Preface to first edition

The trainers of community health workers for whom this book is primarily intended will probably already know the technical information on nutrition that it contains. Many of them, however, will not be familiar with the task-oriented approach that is adopted here. It is hoped that they will find this book useful either for preparing and carrying out a new nutrition training plan or for revising an existing plan to make it more practical and effective. Supervisors will find much in these pages to help them in the guidance and on-the-job training of community health workers under their supervision. The community health worker who has completed training based on this manual can also use it for reference and as a continuing guide to help her in her daily contacts with families. Finally, this book explains the basic nutrition tasks of the community health worker to other health and development workers in the community. It will serve them all as a guide in determining the areas in which they can work together to solve the nutritional, health and related problems that are their common concern.

Preface to second edition

After its publication in 1981, the first edition of this book was field-tested in a number of training centres for community health workers in developing countries. This second edition has been prepared by Dr K. Bagchi on the basis of this experience. In addition, many trainers from both developed and developing countries who used the first edition sent in suggestions for improvement independently, and this edition also includes their recommendations. The World Health Organization is grateful to all of them.

The first part of this book consists of three chapters that should be read by all trainers. The first introduces the guidelines; the second deals with teaching skills, and is intended to help trainers teach better; those who are not formally trained as teachers will find it useful to study the teaching methods described. The third chapter presents some basic facts about foods to help trainers focus on the basic nutritional knowledge community health workers will need in order to work effectively.

The second part of the book contains the training modules. Each module deals with one topic and describes specific tasks related to it. The modules in this edition are essentially the same as those in the previous edition, though some of them have been modified considerably. In most cases, the training content has been made shorter. The modules on nutrition and diarrhoea and nutrition and infections in the previous edition have been condensed into one module in this edition. The last module is new and contains useful practical information on how to apply all the knowledge learnt during training to the nutritional problems in the real-life community situation.

This book should be used as a model, and national trainers must adapt it to suit local needs by introducing locally relevant examples of nutritional problems and exercises. (A new WHO publication, still in press at the time of writing, *Nutrition learning packages*, describes useful activities and contains material for adaptation.) This has already been done with the previous edition, which now exists in several languages including Arabic, Burmese, French, Hindi, Malay, Spanish, and Thai. We hope that this revised edition will prove even more useful than the first.

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Introduction

Malnutrition

In most developing countries the majority of the population—the rural population especially—does not receive even the most basic health care or any nutritional advice. Malnutrition usually stems from poverty and from ignorance of what are the right foods to eat. At the same time it increases the problems caused by the lack of health care because it weakens the body's defences against disease. People weakened by malnutrition and disease do not have the energy to overcome poverty and are helpless to improve their own situation. Malnutrition, therefore, is not merely one of the greatest public health problems in the world today, it is also both a result and a cause of social and economic underdevelopment.

The root of the problem is in the home: to solve it, the family must be helped to learn better habits of nutrition and must be served by better health care. In an increasing number of countries, the person responsible for health care at the family level is the community health worker. In a primary health care system, she¹ occupies a key position, being the first point of contact that the family has with the health services. It is she who first treats the members of the family for their illnesses and who gives them advice on health matters. It is essential, therefore, that she should be properly trained to deal with the most prevalent health problem she is likely to meet—namely, malnutrition.

¹ The community health worker is referred to as "she" in this book because in most developing countries many such workers are responsible for health work concerned with maternal and child care and nutrition. Male community workers are usually responsible for community development work such as food production, water supply, and sanitation.

The community health worker's nutrition tasks

There are many tasks she will have to perform to overcome the malnutrition problem. Studies conducted in recent years by the World Health Organization and others have shown that the majority of these tasks are common to community work in most developing countries. They can be grouped into eight main categories—namely:

- Getting to know the community needs
- Measuring and monitoring the growth and nutrition of children
- Promoting breast-feeding
- Giving nutritional advice on feeding infants and young children
- Giving nutritional advice to mothers
- Identifying, managing, and preventing nutritional deficiencies
- Providing nutritional care during common infections
- Conveying nutritional messages to the community.

The need for a change in nutrition training

The training in nutrition that the community health worker receives commonly suffers from three main defects.

First, because nutrition trainers are often professionals from different disciplines (doctors, nutritionists, or nurses, for example), they naturally tend to teach what they themselves learned during their own professional training. This often leads to the training being biased towards the profession of the trainer and being aimed at too high a level of learning. A doctor, for instance, may attempt to make his trainees learn details of the clinical aspects of nutrition that a community health worker does not really need to know and may not be able to understand. Moreover, the training

frequently relies too much on learning technical information from textbooks and not enough on learning how to deal with practical problems of nutrition.

Secondly, the training is based mainly on lectures, during which the trainees remain passive listeners. There is no exchange of ideas between them and the lecturer that would help them remember the information he is attempting to pass on. *Thus, lecturing is not always the best method of conveying information to the trainees.*

Thirdly, there is a lack of simple training material designed specifically to teach community health workers how to perform certain tasks. *Most manuals on nutrition concentrate on technical aspects of the subject.* They do not specify the tasks the trainees will be expected to perform. They do not explain how the training should be conducted so that the trainees learn the necessary skills. And they do not indicate how to check whether the trainees have in fact learned those skills.

The purpose of these guidelines

The guidelines presented here have been prepared to help trainers overcome these problems. They are designed to train a community health worker to improve nutrition in her area by learning in a practical way the most important things she will need to know and do.

They are based on the following main considerations:

1. The training should be directed to the *performance of specific tasks*. These are the activities that the community health worker will need to carry out in order to deal with the nutritional problems in her area. The performance of these tasks requires certain skills; and these skills in turn have to be based on a knowledge of certain facts. For instance, if a child has diarrhoea the community health worker needs to know that the loss of water and salts from the body is dangerous and that this loss must be replaced by a special solution of salts and sugar in water. She also needs to be able to prepare the solution and feed it to the child, and to convey to the mother the importance of this task so that the mother can do it herself next time.

2. The community health worker should be trained to perform a *limited number of practical tasks* for the improvement of health and nutrition. The amount of theoretical information given during the training can be

restricted to the minimum necessary for understanding the importance of those tasks.

3. To be fully effective, training requires the *maximum participation* by the trainees themselves. This can be achieved by what is called the "teaching-learning" method. It differs from conventional teaching in that it is more concerned with stimulating a trainee to acquire the knowledge she needs to perform a task successfully than with simply transferring knowledge from a teacher to a pupil. Using the modules in this book, the trainee will participate actively in her own training.

4. It is very important for the trainees to have a strong *motivation* to learn their job and to serve the community. This should be taken into account when selecting persons for training as community health workers. During the training period, the trainer should try to increase this motivation, in order to encourage the trainees to learn better and to help them to do their community work effectively.

5. As far as possible, the *training should be given near the community* in which a trainee will be working later. It is much easier for her to understand the problems she is learning to solve if she can relate them to the actual conditions she will meet in the community.

6. The trainees will have to acquire certain knowledge and skills that may not seem to be directly related to the technical aspects of nutrition. This is because *the whole community must participate* as much as possible in solving their own problems if activities or programmes to improve nutrition are to be successful. The community health worker will need, for instance, to be able to communicate with the community, to motivate and organize community groups to solve their own problems, to show leadership, and to analyse problems before proposing solutions for them.

7. The *duration* of the training will depend upon the educational background of the trainees, upon how many tasks they will be expected to perform, and upon how complicated these are.

8. Training is *not necessarily completed in a set period of time* or at the end of the formal training course. The supervisor will need to judge how effectively a community health worker is doing her job, to see what further training she may need, and to help her to acquire that training. This should be an encouragement to the community health worker to improve the service she can give. Refresher training at regular intervals will

increase the effectiveness of community health workers.

How trainers may use these guidelines

Trainers who wish to develop nutrition training plans for community health workers for the first time may do so by following the steps listed in the next chapter. For the training itself they may use the modules given in the second part of this book. Depending on the situation in the local communities and on the qualifications of their trainees, one or more of the modules may need to be adapted to suit local conditions, customs, and resources. The length of the training period can be set when this has been done.

These guidelines provide a model of a nutrition training plan—the trainer should modify them to suit local needs.

Each of the training modules deals with one topic and describes tasks associated with it. For example, Module 2 is entitled "Measuring and monitoring the growth and nutrition of children". To carry out the tasks described in each module, community health workers will have to learn several subtasks. It should be noted that a community health worker will not necessarily perform all the tasks described in the guidelines every day. Rather, her daily activities will depend upon the type of nutritional problems in the community she is serving. Furthermore, nutritional problems in a community often vary with time.

The subtasks in each module form the *learning objectives*, which are given at the beginning of each module. For example, the learning objectives of Module 2 are:

- Explain the relationship between growth, development, and nutrition
- Find out the age of a child by using a local-events calendar if the mother is not sure of the age of her child
- Weigh a child accurately to within 100 grams
- Record the weight of a child on a growth chart
- Explain to the mother the features of the growth chart and how it will help her decide whether or not the child is doing well
- Interpret a child's growth pattern from the weight changes recorded.

The learning objectives also indicate what tasks a community health worker will be able to perform after the training is over.

The second section of each training module is entitled *Training content*. This section contains the basic training information about each module. After learning the training content the trainees should be able to:

- Understand why the task described in the title of the module is important
- Understand what subtasks and skills are required for carrying out that task
- Carry out the subtasks and practise the skills.

In this section, the training material is arranged in the same order as the learning objectives. The training content also describes the *skills* which must be acquired in order to carry out specific tasks. For example, the training content relating to the task of nutritional monitoring of young children describes in detail what a growth chart looks like, how the chart is to be used, how to weigh a child accurately, how to assess the correct age of the child, how to record the weight on the chart, and so on. In other words, the training material imparts the knowledge necessary to understand the importance of specific tasks, and also describes the skill required for each.

At the end of each section on training material there is a list of *training methods* suitable for that particular module. Here again, the trainer should remember that these are only examples and that other methods may be used if they are found to be more suitable for the trainees in a particular training situation.

The last section of each module presents practical exercises. These can be used in two ways. The trainees can use them as practical tasks to practise skills. And the trainers can use them as practical tests to assess how well the trainees have learnt the skills. As explained earlier the exercises are based on different training methods. Some involve practical work (for example, weighing a baby) and certain others are based on community survey work. In addition, there are some role-playing exercises for practising and testing communication skills. It should be noted that the *exercises given in this book are only examples*. Trainers are advised to devise, if necessary, new exercises that suit local conditions and customs better.

Teaching for better learning

The purpose of teaching is to facilitate learning. This is not an easy task. Teaching is commonly perceived as standing before a group of students and lecturing. Although this method of teaching is useful in certain situations, it is not always the best method of imparting information. Experience has shown that in the case of trainee community health workers lecturing alone is not enough to help them learn the necessary skills. This chapter considers the teaching and learning difficulties of trainers and trainee community health workers, respectively, and describes teaching methods suitable for training community health workers in nutrition.

Lectures alone are not enough to help trainees learn the necessary skills.

Teaching difficulties of trainers

Trainers of community health workers in nutrition often have different educational backgrounds (medicine, nutritional science, nursing, midwifery, etc.). Although all trainers have the necessary knowledge about nutrition, they often do not have enough knowledge about teaching methods that can facilitate learning. This is so because they *have not been trained to be teachers*. Thus, a good doctor, a good nurse, or a good nutritionist is not necessarily a good trainer as well.

Trainers of community health workers often have no formal training in teaching.

Therefore, it is recommended that, before starting to teach, all trainers should learn the basic principles of teaching, formulating a curriculum, and planning a lesson. They must also know the advantages and disadvantages of the commonly used teaching methods and aids.

Points to remember in planning a training course

Objectives of the course

The main aim of a nutrition training course for community health workers should be to train the students to carry out the tasks they will be responsible for upon completion of their training. The trainer should obtain the job description of the community health workers he is expected to train to know what tasks should be included in the training course. It is most important to know exactly what tasks the trainees must learn. If the trainer is unsure about these tasks, it is very likely that the course will become excessively theoretical, dealing with the principles and science of nutrition rather than their application.

How much theory should be taught?

To be able to understand the reasons for carrying out particular tasks, the trainees must be taught some basic scientific facts about nutrition and human biology. The trainer must decide how much theoretical knowledge community health workers require in order to do the tasks well. In this regard the following points should be considered:

(a) Some trainers want to teach everything. This is not only impossible, but also not necessary.

(b) A good trainer should consider the sub-tasks associated with each task separately. He should then list these topics under two categories: "*must learn*" and "*useful to learn*". The first should include all the information all trainees must learn. After each lesson the trainer should ensure that the essential information has been learnt by *each* trainee. The second category should include information that may be useful to the trainees but is not essential for the performance of the tasks. The trainer should not spend much time on these

topics. He should only guide the trainees as to where they can find that information. Often too much time is wasted on details that are of little importance to the objectives of the course. Sometimes the trainer may have difficulty in deciding what to teach and what to omit. In such situations the trainer should try to decide what the students would do poorly if this detail were left out. If the answer is "nothing", then that detail should be left out.

The trainer must specify and define the learning objectives clearly.

Helping students to learn

The role of the trainer is help the students to learn. The learning process can be made easier with the help of different teaching methods and aids. Lecturing is just one way of helping the trainees to learn; there are other, better methods. For example, the trainees can be given a hand-out and then asked to participate in a discussion on the subject of the hand-out. Another way is by assigning a task that requires the students to do something or to observe a real-life situation. The following Chinese proverb may be useful to remember in this context:

- **Hear and you forget**
- **See and you remember**
- **Do and you understand.**

In the usual classroom teaching, most trainers prefer to lecture because it is the easiest thing to do. Moreover, in most training schools facilities are lacking for teaching by other methods. If lecturing is the only feasible method of teaching, some simple techniques can be used to improve its effectiveness.

Some simple ways of improving lectures

Planning topics in the lecture

First make a list of the topics to be covered in the lecture. This list should be in the order in which the topics must be learnt. Then decide what information and facts are essential for teaching each of the topics. Such planning facilitates the learning process.

Unplanned lectures confuse students.

Giving the lecture

There is no one ideal way of giving a lecture. The style of lecturing depends on the subject of the lecture and the type and level of the trainees. With experience most trainers develop an effective way of lecturing. The following are some useful suggestions:

(a) *Find out how much the students already know.* What the trainees already know determines what they can learn next. An example will illustrate this point. If the trainer is going to lecture on the nutritional care of young children, the trainees should have already learnt about the nutritional values of commonly available foods in the community. Similarly, the trainees must know about monitoring the nutritional status of young children with the help of a growth chart before they learn about the identification and management of protein-energy malnutrition. In training courses in which several trainers lecture one group of trainees, this practice is sometimes not followed. Often, lectures are fixed according to the convenience of the trainers.

Before giving a lecture find out what the trainees already know.

(b) *Before starting the lecture summarize the main topics to be covered.* It is a good practice to tell the trainees at the beginning of the lecture what topics are going to be covered and what is their importance with regard to the tasks the trainees will be expected to perform in the community. If the blackboard is normally used, write the headings of all the topics in the lecture before starting the lecture. This will help to create interest in the subject among the students.

Write the topics of the lecture on the blackboard before starting the lecture.

(c) *Make the lecture interesting.* Standing before a group of trainees and talking in a dull and monotonous voice is the surest way of making the lecture ineffective. Some ways of making lectures more interesting are: asking questions, telling some real-life experiences related to the topic, and posing problems and asking trainees to suggest ways of solving them.

(d) *Speak loudly enough.* Speak loudly so that those sitting at the back of the class can hear clearly. Experience has shown that

trainee community health workers are likely to remain quiet and not ask the trainer to speak louder even if they cannot hear clearly.

(e) *Face the trainees and speak clearly.* It is most important to face the students while giving a lecture. Many trainers spend a lot of time looking at their notes or facing the blackboard while lecturing. This is a bad practice. It results in students losing interest in the lecture. Lecturing to a class of students should be regarded as similar to talking to a small group of people. Look at each of your trainees from time to time while giving the lecture. This is called "making eye contact".

(f) *Use simple language.* Speak in as simple language as possible so that all the trainees understand everything you say. Often, persons training to become community health workers have a poor educational background and therefore may have difficulty in understanding difficult words. Moreover, they may be from different regions of the country and may speak different dialects or even different languages.

Three simple rules for making a lecture effective:

- Speak loudly and clearly
- Face the trainees
- Use simple language.

(g) *Use visual aids whenever possible.* During a lecture it is good to use visual aids, such as a blackboard, charts, slides, or photographs to explain certain ideas. When properly used, visual aids can create interest in the subject among the trainees and can break the monotony of the lecture. Many trainers use visual aids, but not always in the best way. Here are some simple rules:

- *Write clearly.* Trainers should remember that students have a tendency to copy everything that is written on the blackboard. Quite often trainers write only a few words or incomplete sentences on the blackboard and speak the rest of the sentence. This may result in the trainees writing down a jumble of words which they will not be able to understand later. Therefore, all writing on the blackboard should be clear and legible. The trainer should also make sure that trainees in all parts of the classroom can clearly see the blackboard.
- *Draw simple diagrams.* If a diagram or a rough illustration is necessary to explain something, make sure that the drawing is

as simple as possible. It should be noted that while the trainer may find a diagram simple it may still be confusing to the trainees. Avoid using graphs, bar diagrams and similar illustrations because these may be difficult for the trainees to understand.

(h) *To conclude the lecture summarize the main points again.* Some time should be kept at the end of the lecture for summarizing the main points which the trainer wants the trainees to remember. This will also provide an opportunity for the trainer to find out how much the trainees have learnt.

Teaching of skills

Community health workers have to acquire certain skills to perform the tasks required to provide health care to the community. In nutritional care, for example, community health workers have to perform tasks such as weighing children to monitor their growth, identifying children who are at risk of becoming malnourished, and advising mothers on how to feed young children. To do any one task well, the community health worker must first understand why that is necessary; for this she will need to have knowledge. Then, she must learn the skills needed to carry out that task.

Community health workers need to learn three types of skill to do their job well. First, they must have reasonable manual dexterity. For example, they would need to use their hands skillfully in weighing children and recording the weights on growth charts. Such skills are called *manual skills*. Second, they would need *thinking skills*, for such tasks as identifying children at risk of becoming malnourished, for example. Finally, they would need the ability to convince mothers and other people to change some of their habits and practices. For this they would need *communication skills*. (For example, community health workers would have to convince parents to get their children immunized.)

Skills cannot be learned through lectures and demonstrations alone. They have to be practised. Community health workers will need a lot of practice in doing tasks before they develop the necessary confidence to do those tasks independently.

Teaching of skills is best done in three steps. First, describe the task and the skills required to do it. Then demonstrate the skills. Finally, allow the trainees to practise the skills. The first two steps should be done at the same time

so that the trainees understand the link between them. Once the trainees have understood why a task is necessary and how to do it, they should start practising it quickly, while it is still fresh in their minds.

Three steps in teaching particular skills:

- Describe the task and skills required to do it
- Demonstrate the skills
- Allow the trainees to practise them.

Description of skills

First, the trainer should describe the task and the skills required to do it. He should also explain why the task is necessary, under what circumstances it is required, and what might go wrong if the skills are not learned properly.

For example, to do the task of monitoring growth by using a growth chart, a community health worker will need to learn various skills, including:

- Convincing mothers to bring their babies for weighing
- Checking the accuracy of weighing-scales
- Weighing babies correctly
- Recording their weights on growth charts
- Interpreting growth curves
- Giving appropriate advice to mothers.

In a lecture, the trainer should first describe the above task and skills using visual aids (such as pictures of a weighing-scale and a growth chart). While describing each of the above skills the trainer should point out what might go wrong and what would be the result of a mistake; for example, that if the weighing-scale is not checked properly before use all results would be wrong.

Several skills may be needed to do one task.

All skills should be learned and practised separately.

Demonstration of skills

After describing and explaining the task and associated skills, the trainer should demonstrate each skill separately. Sometimes, persons other than the trainer may do the demonstration. For example, doctors in a clinic or health centre may be asked to demonstrate how to identify nutritional deficiencies in a child.

Most of the skills can be demonstrated anywhere (classroom, health centre, etc.). Two simple rules should be followed during the demonstration:

(a) The demonstration should be clearly visible to all the trainees. When there is a large group of trainees, it is common to see a crowd around the demonstration, with quite a few trainees unable to see what is happening.

(b) Each step in the demonstration should be explained clearly. Also, the trainer should draw attention of the trainees to the common mistakes and omissions in each step. For example, if the trainer is demonstrating how to weigh a child, he should point out that it is easy to forget to make the zero adjustment before each weighing session. At the same time, the trainer should remind the trainees about the need for checking the scale with known weights from time to time. Both these points are important for accurate weighing.

Practising of skills

This is the most important part of the learning process. It is only by practising the tasks on their own that the trainees will develop the confidence necessary to do the tasks independently in the community. Unfortunately, enough attention is not always paid to this aspect of training because practice sessions are difficult to arrange and are time-consuming. What usually happens is that one or two visits are arranged to a health centre or community for the trainees to see how trained community health workers do the same tasks.

There are a number of different ways of helping trainees to practise skills, depending on the type of skill involved. One way is to assign projects to small groups of trainees. For example, two or three trainees may be asked to go to a community and identify children with malnutrition. Another way of practising the same task of identifying malnourished children is to let trainees examine malnourished children in a health centre. Role-playing, when properly organized, can also be a very effective method of practising communication skills (e.g., nutrition education).

The best method of helping trainees to practise skills is, however, to let them work for a short period under the supervision of a trained community health worker. This will give the trainees an opportunity to practise skills in a real-life situation.

In any training course for community health workers, a major portion of the training time

should be spent on the teaching of skills. One or two visits to a clinic or community are not sufficient for trainees to practice skills.

Assessing how much the students have learnt

It is important for all trainers to know how much the students have learnt. This is the only way to know if the students will be able to do their job well after completion of the training. The process of knowing what the students have learnt is known as *assessment*. Most commonly assessment is done by means of an examination, in which there are usually three components—theoretical, practical, and oral. Assessment also enables the trainers to know how they themselves have performed as teachers. From the results of the assessment, trainers can find out which part of the training programme is strong or weak or how the training should be modified to get better results.

Final versus continuous assessment

In most training courses, the students are assessed at the end of the course on the basis of a final examination. However, students can also be assessed periodically during the entire course. Generally, this form of *continuous assessment* has many advantages over *final assessment*. Some of the advantages are:

- Continuous assessment is a more reliable indicator of what the students have learnt during the course
- The tension and worries of a final examination are avoided and the students are motivated to work hard throughout the course, instead of leaving everything to the end before the final examination
- Continuous assessment enables the trainers to keep a continuous check on their own performance and on the usefulness of the course, and, if necessary, the trainers can modify the course.

Methods of assessment

There are many methods of assessment, but none of them is perfect. Each has some advantages and some drawbacks. The trainer must choose one or a combination of methods to assess the trainees. The choice of the method (or methods) will depend on what exactly the trainer wants to assess. The trainer will also have to fix a minimum acceptable

level of performance for the trainees. A brief description of methods of assessment is given below.

(a) *Informal testing* can be done inside the class or outside.

In class, you may put questions to the class as a whole. You can assess the difficulties of the class, or of individuals, with the subject matter. Outside the class, the questions will usually be put to individual trainees or small groups of them. Some points to bear in mind are:

- The questions should be related to the objectives.
- The questions should be clear and precise.
- The questions should require fairly short answers.
- Give everyone an equal chance to answer questions.
- Encourage the students and do not ask any question in a way that might embarrass a student.

After class, the trainer should check his/her own performance:

- Were the learning objectives clearly specified and defined?
- Did all the trainees know what the objectives were and understand them?
- Were the content of the lesson and the teaching methods and aids right for the learning objectives?
- Were the teaching aids properly prepared for the lesson?
- Was there a proper check of how the trainees were progressing?
- Did the introduction to the lesson link it clearly with the previous lesson?
- Were the right examples used to clarify important points?
- Was there enough time for questions?
- Was the material presented clearly and could the trainer always be heard?
- Was there a good summary at the conclusion of the lesson?

(b) *Formal testing or examination* may be done in various ways

Practical tests. The trainee demonstrates her ability to perform certain practical tasks. These must be relevant to the learning objectives. There should be enough time to complete the test. The trainees should have been shown how to do the task and should have practised it before being tested. As an example of a practical test, trainees may be asked to demonstrate how to weigh a child accurately and how to record the result on a growth chart.

Oral tests. The trainee's knowledge of a subject is probed deeply by verbal questions and answers. The ability of the trainee to give satisfactory answers may be affected by her communication skills, her self-confidence, and the encouragement given by the trainer or the person conducting the testing. If a grade is given, it may be affected by the personal feelings of the tester.

Written tests. The trainee's knowledge is tested by writing answers to questions. When writing test questions, always think how relevant they are to the learning objectives and to the trainees. There are two types of written tests:

(i) Written tests with long answers or essays. These are often used in academic situations and may not be advisable for community health workers. They are useful for judging the depth of knowledge of trainees and how they express themselves. It is often difficult to grade the results with fairness.

(ii) Written tests with short answers. These may require one-word answers, completing a sentence, stating whether a given answer is true or false, or choosing the correct answers among several that are given. For each question, there is a precise answer. It takes time to prepare the questions, but the correction and marking of the tests is very easy and quick.

Useful hints about teaching aids

Selecting teaching aids

The proper use of teaching aids requires much careful thought. This is particularly true

if they have to be prepared from scratch. The trainer should always make quite sure that the subject matter, the training methods and the visual aids are all suited to each other. The trainer should also have adequate rehearsal in their use, especially if they are being used for the first time, to ensure that she is quite familiar with them. Some factors to consider in choosing the aids are:

- **Situation.** To whom will the presentation be made—one trainee or a group of trainees? Where will the presentation take place—clinic, classroom or field? This will affect the size of the aid. How often will the aids be used? If they are to be used once only, it may not be worth while to prepare expensive and elaborate aids. Will the use of the aids depend on such things as electricity, transport or other equipment like projectors; if so, are these available?
- **Subject matter and desired effect.** What emotion is the trainer trying to arouse—fear, surprise, shock? A much stronger impact can be made when teaching the symptoms and effects of kwashiorkor or marasmus by showing real severe cases or coloured pictures than by using sketches. Does the information require gradual building-up and linking with other information?
- **Cost.** Teaching aids cost money, and some are very expensive. Film and slide projectors and overhead projectors are the most expensive, followed by the magnetic board and the flannel-board. *Blackboards are cheap and are practical in many situations.*

A number of common teaching aids, their advantages and disadvantages and some useful tips on their preparation and use are listed in Table 1.

Table 1. Some common teaching aids

Teaching aid	Advantages	Disadvantages	Tips on preparation and use
Handouts and other printed matter	Particularly useful to trainees because they serve as visual aids during the training. Can also serve as useful sources of reference later on.	May distract trainees who will read or work on handouts if they are distributed too early. Not very useful for illiterate trainees unless carefully planned. Reproduction depends on available facilities and time, e.g., stencil, offset, typing with carbon copies, photocopying machine.	Can be designed in different ways: <ul style="list-style-type: none"> ● as visual illustration of trainer's presentation ● as work-books with exercises ● simply as printed information. State the use of the handouts. Plan carefully the spacing, illustrations, labelling, headings, paging, type and size of paper.

TRAINING COMMUNITY HEALTH WORKERS IN NUTRITION

Table 1. (continued)

Teaching aid	Advantages	Disadvantages	Tips on preparation and use
Blackboard	<p>Generally available and inexpensive.</p> <p>Does not require advance preparation of visual aids.</p> <p>Very useful in presentations which require much erasing, e.g., mathematical calculations.</p> <p>Allows step-by-step build-up of presentation.</p>	<p>Trainer has to turn her back to the trainees. When writing, her attention is on the board, not on the trainees.</p> <p>Trainer does not see audience reaction while writing.</p> <p>Can usually be read or seen only at a limited distance.</p> <p>Dusty and messy to hands and clothing.</p> <p>Limited dramatic effect of the presentation.</p>	<p>Keep in mind the audience for whom you are writing.</p> <p>Use print or block capitals for emphasis.</p> <p>Write only the essentials; do not overcrowd; be tidy and neat.</p> <p>Use coloured chalk for emphasis.</p> <p>Carry your own chalk and eraser to ensure availability.</p>
Charts and posters	<p>Useful for displaying information on a permanent or temporary basis.</p> <p>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.</p> <p>Flip-charts are useful for presenting a number of points (or even story-telling) in short steps and certain order.</p> <p>Presentation is not messy and saves time.</p> <p>Materials are reusable for summary review and another presentation.</p> <p>Portable.</p>	<p>Pages have limited spaces.</p> <p>Could present problems in transportation and storage, depending on number and bulk.</p> <p>Limited dramatic effect of the presentation.</p> <p>Should be big to be useful with a large group of trainees.</p>	<p>Do not overcrowd; use big, clear lettering.</p> <p>If cost permits, use colour.</p> <p>Uncover the charts or posters one by one to create suspense and concentrate attention.</p> <p>Avoid crinkled and noisy sheets, which can be annoying. Stand to one side when presenting the chart.</p> <p>Store carefully and preserve well for next use.</p>
Flip-charts	<p>Inexpensive and allow for writing space where blackboard is not available.</p> <p>Easy to carry.</p> <p>Useful for recording ideas during group discussions.</p>	<p>Require a special felt-tipped pen for big writing.</p> <p>Suitable only for small groups.</p>	<p>Bring extra paper and pens of different colours; also tape or thumb-tacks for fixing paper on the wall.</p>
Flannel-board	<p>Easy and inexpensive to construct.</p> <p>Can be prepared in advance.</p> <p>Reusable and permits quick changes.</p> <p>Permits step-by-step build-up of complex figures.</p> <p>Versatile: can use words, phrases, lines, drawings, photographs and other cut-outs.</p>	<p>Visual aids have to be prepared in advance.</p>	<p>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 any other material that will adhere to the flannel.</p> <p>Plan and rehearse in advance the exact appearance of the board at any one time during presentation. Mark the positions of cut-outs lightly.</p> <p>Arrange the cut-outs in the order of presentation before you begin.</p> <p>Store the board and cut-outs carefully to keep them clean and prevent the sides folding.</p>

TEACHING FOR BETTER LEARNING

Table 1. (continued)

Teaching aid	Advantages	Disadvantages	Tips on preparation and use
Overhead projector	<p>Flexible materials can be prepared easily by different methods. It can be used in different ways—for writing and presentation of charts, etc.</p> <p>Can be used without completely darkening the room. It is easy to manipulate.</p> <p>Trainer faces audience all the time. She can work and write on it (horizontal surface) while sitting down.</p> <p>Permits use of colour and other effects by presenting short steps in orderly sequence.</p> <p>Transparencies are reusable.</p>	<p>The projector is expensive.</p> <p>Requires electricity, special pen and acetate or plastic transparencies.</p> <p>Heavy, although portable.</p> <p>Spare parts may be difficult to obtain and expensive.</p> <p>Light from the projector in the trainer's eyes may be unpleasant.</p>	<p>Produce transparencies by drawing or writing directly on to transparent acetate (plastic) sheets. Use suitable grease pencils or felt-tipped pens.</p> <p>Two techniques which may be used are:</p> <ul style="list-style-type: none"> ● "overlay" technique: transparencies can be laid one on top of the other to add labels, colour, or other details. ● "uncover" technique: start by covering the entire transparency with a sheet of paper and gradually uncover more parts as necessary. <p>Mount transparencies on cardboard with adhesive tape to preserve them for future use and for easier handling. Store carefully.</p> <p>Arrange transparencies in exact order of presentation; rehearse their use.</p>
Slides and filmstrips with appropriate projector	<p>Easiest way of bringing real-life situations into the classroom; colourful and dramatic.</p> <p>Less expensive and easier to operate than films.</p> <p>They may be prepared for a complete lesson, accompanied by written notes or tape-recorded commentary.</p> <p>Filmstrips cannot get out of order.</p> <p>Both slides and filmstrips are compact and convenient.</p>	<p>Expensive.</p> <p>Most projectors require electricity.</p> <p>Even the portable models may present a problem in mobility.</p> <p>Spare parts may be difficult to obtain and expensive.</p> <p>Require darkened room for presentation.</p>	<p>Slides are easier to edit and arrange for training purposes than filmstrips.</p> <p>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.</p> <p>Before and after the showing, prepare good presentation guides, e.g., what to look for, discussion guidelines or leading questions.</p> <p>Repeat the showing or parts of it for emphasis.</p> <p>Switch off projector when not in use.</p> <p>Make sure you have extra bulbs and long extension cord.</p>
Sound filmstrips or slide-tape, presentations	<p>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.</p>	<p>Additional investment needed for equipment.</p> <p>Need special expertise to prepare and training and practise to use.</p>	<p>The script or story (sound) and pictures should match well.</p> <p>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 to see if relevant to your need and situation.</p>
Use of real examples (e.g., real food items or food models)	<p>Convenient and bring real-life situations to class.</p> <p>Very effective for clear teaching and learning.</p>	<p>May not be readily available or difficult to bring in.</p>	<p>Use real examples whenever possible.</p>