A Training Manual in Combatting Childhood Communicable Diseases:
Volume I

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Module 4: Health education

Acknowledgements

Introduction

The Combatting Childhood Communicable Disease (CCCD) Project is a major collaborative effort of Sub-Saharan African nations, the U.S. Agency for International Development, the Peace Corps, the Centers for Disease Control, the World Health Organization, and other donor nations to red we morbidity and mortality in children under five years of age. The CCCD Project focuses on the following target diseases which affect the lives of millions of children every year:

• vaccine-preventable diseases
• diarrheal diseases and dehydration
• malaria

Peace Corps Volunteers (PCVs) assigned to the CCCD Project serve in the role of health educators at the national and community levels. The Peace Corps CCCD Training Manual, made possible by a cooperative agreement between AID and Peace Corps, is designed to provide these Volunteers and Host Country Counterparts with intensive training in health education for selective primary health care (PHC) activities including

programs in expanded immunization, diarrhea! disease control, malaria control, nutrition, and training of health workers.

Although the manual was developed as part of the CCCD Project, it may be used as a resource for training any health workers whose jobs include a focus on health education and the selective PHC activities. The manual is based on a generic approach to health training that:

• reflects an understanding of the role of the Peace Corps health worker in the context of providing primary health care (PHC) in the developing world.

• is sufficiently flexible and adaptable for use in Peace Corps countries world-wide.

• addresses the needs of participants with varying degrees of health knowledge and work experience.

• considers important field realities such as variations in the length of technical training or accessibility of a local community for application of training.

• allows for the integration of technical and other training components to promote the attainment of well-rounded development skills.

A central theme of the CCCD Manual is the recognition that technical expertise is significant and useful only when it is applied in balance with other abilities. A person technically competent in disease control is of little value to the community unless he or she has the ability to work cooperatively with others to motivate them toward a more self-reliant and healthy life. It is essential that Peace Corps Volunteers and Host Country Counterparts develop a variety of complementary skills, knowledge and attitudes that will serve to weave together the many threads of community development. Therefore, two primary goals of the manual can be identified:

1. To assist Volunteers and Host Country Counterparts in developing knowledge and skills in the selective areas of primary health care.

2. To help Volunteers and Host Country Counterparts develop the complementary skills, knowledge and attitudes necessary to work cooperatively with community members in designing health education strategies that meet the needs of the people.

The training program outlined in this manual emphasizes the parallels which exist between training and community-based development work in primary health care. Throughout the program, participants are encouraged to take a full and active role in their own education and to make decisions that will affect them and the people with whom they work and live. They are urged to cooperate with others, to identify and use available talents and resources, and to practice skills that help motivate people and involve them in the process of their own education.

Trainer's guide

Attachment A: Technical health training needs assessment

I. Assumptions of the CCCD manual

The CCCD Manual, like other Peace Corps training manuals, reflects assumptions which are made about the PCV as a development worker. The following assumptions were adapted from The Role of the Volunteer in Development (Core Curriculum, Peace Corps) and apply to the PCV as a development worker in the area of primary health care:

Self Sufficiency:
PCVs help others to gain self sufficiency.

Skill Transfer and Role Model:
PCVs are assigned a role in which the skills they possess are transferred to others, enabling local people to continue to solve problems.

Training as the Example:
We teach others the way we are taught. The sessions in this manual are designed to promote critical thinking, personal responsibility, active problem solving, and thorough analysis of information.

Problem Solving and Project Management:
Volunteers are required to set goals, define tasks, and plan their day by day activities. Volunteers who are able to solve problems and manage themselves, possess a skill directly related to development work.

Gathering and using Information:
How information is gathered, sorted, filtered, verified, and put to use is critical to the process of understanding and defining development problems.

Role Definition:
Throughout the manual, focus is kept on the Volunteer's role as health educator in selective primary health interventions.

II. Organization of the CCCD manual

The CCCD Manual is divided into Volume I and Volume II. Each volume has sections, called modules, which focus on interrelated health content areas. Each module begins with a set of behavioral objectives and captains a sequence of sessions which address the specific context area. The modular format allows the trainer to combine various modules and sessions as needed given training objectives, time limitations, and other program parameters.

The modules and the sessions within each, are as follows.

VOLUME I		
Module 1	Climate Setting and Assessment	Sessions 1-4
Module 2	Primary Health Care	Sessions 5-8
Module 3	Community Analysis and Involvement	Sessions 9-15
Module 4	Health Education	Sessions 16-

		28
VOLUME II		
Module 5	Nutrition	Sessions 29-32
Module 6	Communicable Childhood Diseases	Sessions 33-44
Module 7	Training of Trainers	Sessions 45-55

For pre-service training, the modules in Primary Health Care, Community Analysis and Involvement, and Health Education are considered fundamental and essential in helping Trainees to develop basic communication and planning skills required in community-based development work.

Modules 5 and 6 contain sessions in nutrition and specific disease areas, the selection of sessions from these modules should be based on country-specific technical programming, and the experience and needs of the Trainees.

Module 7, Training of Trainers (TOT), should be used with Volunteers who will be involved in the design and facilitation of training courses for community and mid-level health workers. If the pre-service training program is tightly scheduled, the TOT module may be conducted as an in-service workshop.

Since most pre-service training programs consist of technical, language and cross-cultural/development training, the sessions in this manual include frequent cross-referencing. For example, the sessions in Module 3 on Community Analysis include a reference to and should be closely coordinated with cross-cultural training activities. The cross-referencing is meant to help the trainer recognize overlap and interface among training components. Making use of these references and suggestions will greatly enhance the opportunities for integrated training.

All of the sessions in the manual follow a consistent format which is briefly explained below. Sessions often have several purposes. For example, the activities may provide skill development on malaria and also provide participants with practice in nonformal education methods and materials development. It is important for the trainer to study and understand the multi-purpose design of each session before conducting it.

Allowance is made for break time in each session. As the module and sessions are modified, the trainer should always work in 5 minutes of bleak time for each hour of training and should decide when the actual breaks occur.

III. Training methodology

As designed, the CCCD Manual can be considered a modified a competency-based training. It aims to help Trainees attain and demonstrate health knowledge and skills (i.e.

competencies) required of them on the job. "Competencies" to be achieved are stated as behavioral training objectives at the beginning of each module. These objectives were developed based on a detailed review and analysis of the tasks performed by Volunteers working in selective health areas.

At the beginning of the training, the trainers should provide participants with a complete list of those behavioral objectives they will be expected to achieve by the end of the program. Session 3 includes an activity in which trainers and Trainees examine and clarify the training objectives in relation to group needs and expectations.

For assessing how well they have accomplished the objectives, Trainees should be given a variety of opportunities throughout the program to demonstrate practical application of acquired knowledge and skills.

It is useful to note here that each of the sessions includes one to four learning objectives. For the purposes of this manual, a learning objective is defined as a sub-objective or intermediate objective that describes what the Trainee is doing along the way toward accomplishing the behavioral objective. The behavioral objective is terminal; it describes what the Trainee will be able to do by the end of the training program.

The trainer can best facilitate Trainees' acquisition of specific competencies by utilizing the experiential learning model. This approach to training includes a focus on learner-centered adult education and emphasizes in particular:

- the role of the trainer as facilitator of learning (rather than only as provider of information).

- the use of a variety of educational methods in meeting individual learning needs.

- learning goals, objectives, and activities which relate Trainees' previous knowledge/skills to that acquired during training and its application to the job.

- the assumption of responsibility by Trainees for their own learning.

- the active participation of Trainees in activities aimed at meeting learning objectives.

Experiential learning is exactly what the name implies learning from experience. Effective training strategies which incorporate experiential learning approaches build upon this precept by providing learners with situations and settings that stimulate the process of experiencing. Within the context of a training curriculum, learning experiences in these situations may take the form of classroom activities, simulations, or "real life" activities. Experiential learning occurs when a person engages in an activity, reviews the activity critically, abstracts some useful insight from the analysis, and applies the result in a practical situation. The experiential process follows the theoretical cycle shown below:

Theoretical cycle

```
                    EXPERIENCING ─────────
           ──────>  (activity, "doing")            ──────
                                                          │
                                                          V

APPLYING                                          PROCESSING
(planning more                                    (discussing
effective behavior)                                reactions and
         ^                                          observations)
         │
                    GENERALIZING  <─────────
                    (infer from experience
                    key generalizations about
                    the "real world")
```
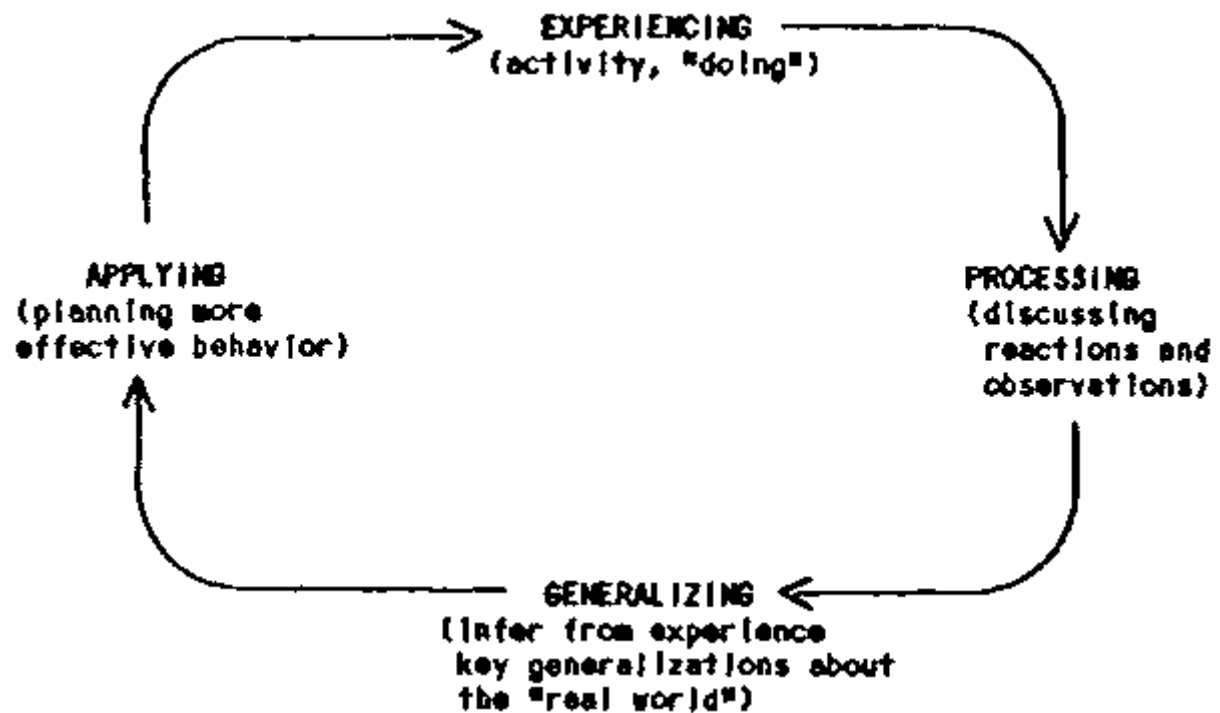
The CCCD Manual makes use of the experiential learning approach in most sessions.
The kinds of techniques used frequently to actively involve the learners include:

demonstration	role play
large group discussion	simulation
small group tasks	case studies
lecturettes	slide shows
community visits and interviews	readings
storytelling	skills practice

The trainer is encouraged to make use of an even wider range of training techniques to
facilitate learning and enable Trainees to transfer health knowledge/skills. In facilitating
learning, the trainer should also make use of and/or help create "learning environments"
which are stimulating, relevant and effective. To the extent possible, the local community
and resources (e.g. health personnel and facilities) should be utilized in conducting
training.

When adapting the sessions from this manual to fit specific training situations care must
be taken to retain all four steps in the experiential learning cycle. For example, if a
session needs to be shortened from three hours to two, the trainer should modify the steps

such that the Trainees can still experience, process, generalize and apply their [earnings. Cutting out the application step to shorten the session time is not a viable modification.

For a fuller description of the experiential learning model and other valuable information on training design and delivery, please refer to A Trainer's Resource Guide, (Peace Corps) and Module 7, Training of Trainers.

IV. Use and adaptation of the manual

The Manual is meant to serve as a model for the effective design of training sessions which promote a logical flow of learning. It is not meant to be used without first adapting sessions to focus on country-specific health problems and the learning needs of Trainees in their particular health assignments. Thus, for example, role plays, character settings, problem situations and other aspects of training activities must be modified to fit local conditions. In addition, country-specific health and related cultural information must be included where appropriate.

In preparation for adapting the manual to meet specific training needs, the trainer should conduct the following steps:

1. Identify host country health problems, needs, and target groups to be addressed during training.

2. Collect country-specific health and other relevant information.

3. Determine the primary and secondary health functions which the Volunteer is being trained to perform (preferably utilizing a task analysis).

4. Determine the average level of health knowledge and skills of the group to be trained.

5. Outline desired training goals, objectives, content, activities and evaluation.

6. Determine resource needs and the availability of resources (e.g. personnel, materials, facilities, and time).

7. Review existing training manuals, designs and materials to determine their adequacy in meeting training objectives.

8. Select, sequence, and adapt specific sessions to be used in the program.

9. Be sure the training design includes:

- opening and closing activities (e.g. ice breakers, end-of-training dinner)
- climate-setting (e.g. sharing expectations, setting the agenda)
- group process (e.g. feedback sessions)

These steps are fairly standard for the design of any training program and can serve as a general guide. For a more detailed description of training design and organization, please read The Trainer's Resource Guide (Peace Corps) as well as Module 7, Training of Trainers.

The following subsections provide ideas for how the manual can be adapted to suit different training situations.

A. <u>Adaptations Based on Trainee Needs and Experience</u>

The more skill, knowledge, and practical experience participants bring, the more effective and enriching are the small group activities that allow them to pool their knowledge and resources to teach each other. The experiential nature of the sessions allows pre-service Trainees to draw on what they bring with them from their experiences in the U.S. (or other parts of the world). They begin with what they already know and apply it to the new culture and work. The trainer can use pre-training questionnaires, a needs assessment form (such as the sample in Trainer's Guide Attachment A), and interviews to assess entry level knowledge and skills and to become familiar with the Trainees' specific needs and expectations.

Once the training is underway, every effort should be made to adapt training activities such that they provide pre-service Trainees with experiences and "hands-on" skill practice in the local community and, if appropriate, in their future workplaces. (For example, participants can pretest visual aids with members of the surrounding community rather than conduct the exercise among themselves in the classroom.)

For cases where health specialists and health generalists are being trained together, the trainer should modify sessions so that the resources of one group are used to benefit the other. Through well-organized peer teaching and small group discussions, the specialists can contribute their expertise to the skills acquisition of the generalists, while the generalists can help to broaden the community development perspective of the specialists. Throughout the CCCD Manual, specific reference is made to activities which represent opportunities for peer teaching.

B. <u>Adaptations Based an Available Materials and Equipment</u>

It is best to use the kinds of materials and equipment during the training that participants will also have available in their host communities. They may have access to more or less variety of materials and equipment than suggested in the manual and sessions should be modified on this basis. For example, you might want to use a film instead of a reading or discussion of a picture because particular health films are available in the country. Or you may want to substitute drawings and photographs where slides are suggested if slides are not available. Encourage participants to locate possible sources of materials and equipment from various agencies in the country.

Case studies, examples, stories and pictures will need to be modified to make them more appropriate for the local situation. If the trainer is not an artist, it is possible that someone in the community who has artistic skills would enjoy helping the staff adapt or design new materials.

C. <u>Adaptations Based on the Size of the Training Group</u>

The sessions and activities in this manual are designed to accommodate training groups of approximately 20 participants. If you anticipate a significantly larger number of participants, consider dividing them into two subgroups, each with its own technical trainer. If the larger group cannot be broken into smaller groups, time allowances for many of the activities will have to be extended. This is especially true in sessions which include small group tasks followed by reporting back to the large group.

D. Adaptations For In-Service Training Workshops

Prior to in-service workshops, a needs assessment and pre-test can be acne in the field to identify technical skill levels, perceived needs, and current project descriptions of the Volunteers scheduled to participate. Trainer's Guide Attachment A contains the Technical Health Training Needs Assessment which can be adapted for use in this manner.

During the training design stage, the trainer should adjust the sessions so that the "starting point" is the PCV's recent experience in the field working with the community. The generic case studies and examples included in the manual can be replaced with "real" examples provided by the group. In addition, Volunteers can bring to the workshop any visual aids, utensils, local clinic equipment and other items from their communities which would help to make the training as relevant as possible.

E. Adaptations Based on Previous Use of the Manual

Technical and educational information contained in this manual is current at the time of this writing. However, advancing technology means modification will be needed to keep the manual up-to-date. Trainers are encouraged to write notes in the margins of the manual where new information applies or an activity was changed and improved. Also note changes in the time required to conduct the sessions as the session times listed are only estimates. This kind of information will allow for improvement of the training over time.

V. Resources

The CCCD Manual has been specifically written for use in Africa but may be modified for application in a variety of countries. The complete collection of materials used in the sessions is listed in the Bibliography at the end of the manual. The primary technical resources are the followings

• WHO Supervisory Skills Modules for Controlling Diarrheal Diseases

• WHO Guidelines for Training Community Health Volunteers in Nutrition

• WHO Supervisory. Mid and Peripheral Level Training Manuals for the Expanded Program of Immunizations

• CDC "Training Course for Instructors in Combatting Childhood Communicable Diseases"

• Proceedings of the International Conference on Oral Rehydration Therapy, (AID)

• Pediatric Priorities in the Developing Countries

• See How They Grow

Technical materials from AID, CDC, WHO, and UNICEF have also served as sources of current guidelines, information and case examples.

Primary resources for Modules 3, 4, and 7 are; <u>Community Culture and Care</u>, <u>Helping Health Workers Learn</u>, <u>Bridging the Gap</u>, <u>Teaching and Learning with Visual Aids</u>, and <u>Teaching For Better Learning</u>.

The references, handouts and trainer attachments included with each session should be considered the major resources for the actual training. All of these materials are either available to Peace Corps trainers and Volunteers through the Information Collection and Exchange (ICE) or are attached to the sessions to which they pertain. ICE also provides an annotated listing of available health publications.

In addition to assembling written materials, the trainer should visit local agencies and groups and international organizations and obtain a variety of visual aids and support materials, for use by both trainers and Trainees during the program. Training staff should pay attention to the various items identified under "Materials" in each session and locate these at the be-tinning of the program. Many people find it helpful to photocopy and compile all of the handouts ahead of time to avoid last minute "crises" in preparation.

A final, but important note an reference materials:

In the course of developing this manual, extensive review of published data has revealed a significant variation in some technical information and recommendations. For example, there are several variations in the "correct" amounts of sugar and salt required for one liter of homemade rehydration solution. In some cases these variations represent differences in technical perspectives, and in other cases, outdated information. As of the final revision of the manual, all technical information is based on the most current and accurate data and guidelines available from WHO and CDC. Great care has been taken to ensure the quality of the technical material included in sessions, handouts, trainer attachments and suggested readings. As with any technical document, however, the content will have to be revised and up-dated in accordance with conclusions drawn from the most recent research.

Trainers and other users of the manual should always check with Peace Corps as well as host country health ministries to revalidate or modify material to ensure that it is consistent with country health policy and programming.

VI. <u>Staff Preparation</u>

The CCCD Manual includes detailed session procedures and explanatory trainer notes for the benefit of seasoned as well as less-experienced trainers; merely following the steps in the sessions however does not guarantee a successful program. The training staff who design and conduct the program outlined here should represent a balance of skill and experience in adult training methodology and technical expertise in the subject matter. The staff should be flexible and able to "let go" so that the participants are encouraged to take an active role in their education.

In addition to the trainers' background skills and expertise, program success depends on adequate preparation time. A "training of trainers" workshop should be scheduled before the program, to provide the staff an opportunity to practice their training skills and build a cohesive and supportive team. During the preparation time, trainers should review the designs, prepare lecturettes in their own words, and have a complete sense of exactly

what a session is trying to accomplish. If at all possible, trainers should simulate or rehearse sessions in order to anticipate questions and gain a sense of session flow.

VII. <u>Evaluation</u>

Before discussing how we do evaluation, it is useful to first examine why we do it.

Evaluation is an integral part of every training program and should be designed from the start of planning. It includes an assessment of the conduct of the program (administrative organization and presentation of activities) as well as the outcomes (if the participants have accomplished the objectives). Evaluation is a learning process which allows both trainers and Trainees to:

- Test the knowledge and skills acquired during the course;
- Analyze the effectiveness of the activities used;
- Judge the appropriateness of the educational material used;
- Give participants and trainers a chance to express their criticisms and suggestions.

Constant evaluation during a training program is as important as a final evaluation. Comments, criticisms and suggestions can be solicited during periodic meetings, informal Conversations at the day's end, or by way of a suggestions box in the conference hall. These inputs aid trainers in modifying the course as the needs arise.

<u>Evaluation Tools Included in the Manual</u>

Several methods for assessing Trainee performance and evaluating the training programs are incorporated into the manual. These include:

- The Technical Health Training Needs Assessment which can be adapted and used to assess participants knowledge and skill levels prior to training design. The sample form is found in Trainer's Guide Attachment A.

- Behavioral objectives for each module which state in measurable terms what the participants should be able to do by the end of the segment of training. The trainer can use this to assess participant performance and identify weaknesses in program content or process.

- A pretest/posttest system which assesses the participants' acquisition of knowledge, and to some extent, attitude change. The pretest is part of Session 2, General Assessment.

- Participant-led projects and presentations which assess learning and provide participants with the opportunity to immediately apply and practice what they have learned in a "safe" environment. These training events occur throughout the modules and enable Trainees to demonstrate both their technical knowledge and their teaching skills.

- The Health Day (Session 28) which challenges participants to bring together and apply many of the skills they've learned during the program. The Health Day is a two-day task in planning, organization and implementation, and is usually scheduled as a culminating activity of the training program.

- The program evaluation in Session 4 which provides for both a written and verbal discussion of the strengths and weaknesses of the training. For training programs of two

weeks or more, an evaluation session should be conducted at the mid-point and at the end of the program. The information and recommendations from these evaluations should be synthesized and included in the trainer's end-of-training report to Peace Corps.

It should be noted that all of these evaluation measures reveal primarily the immediate reactions and changes in knowledge, skills and attitudes of participants. A more reliable test of program effectiveness can be made in the field where participants perform their daily tasks. Questionnaires, supervisory visits, and evaluation meetings three to six months after the training are several means of gaining greater insight into the utility of the course and future training needs of Volunteers.

For more detailed information on evaluation, please refer to Demystifying Evaluation (Clark and McCaffery) and Helping Health Workers Learn.

Attachment A: Technical health training needs assessment

VOLUNTEER:
Please fill out this form completely and return it to _____ in the Peace Corps Office by _____. Your training will be planned according to the responses we receive.

_____

____

_____

____

What additional technical skills/knowledge do you need to enhance your ability to perform your job? Indicate the level of your need by circling the appropriate number. The following are suggested topics; if you have additional topics include them under "Other".

TOPICS	**Not Needed**	**Needed**	**Strongly Needed**	**Essential**
	0	**1**	**2**	**3**
Primary Health Care (PHC)				
• Host country PHC programs	0	1	2	3
• Role of PCV in PHC	0	1	2	3
Community Analysis & Involvement				
• Methods for general community analysis	0	1	2	3
• Knowledge, Attitude and Practice	0	1	2	3

Surveys				
• Surveillance	0	1	2	3
• Community involvement techniques	0	1	2	3
• Planning and working with a Counterpart	0	1	2	3
Health Education (HE)				
• Writing objectives	0	1	2	3
• Selecting strategies	0	1	2	3
• Planning and implementing an HE project	0	1	2	3
• Monitoring and evaluating the project	0	1	2	3
• Making or adapting visual aids	0	1	2	3
• Mass media techniques in HE	0	1	2	3
• Pretesting techniques and materials	0	1	2	3
Nutrition				
• Basic food groups	0	1	2	3
• Nutritional Assessment (anthropometric measures)	0	1	2	3
• Breastfeeding and weaning	0	1	2	3
• Nutrition counseling	0	1	2	3
Communicable Diseases				
• Vaccine Preventable Diseases (measles, DPT, polio, tuberculosis)				
- how to recognize	0	1	2	3
- how to prevent	0	1	2	3

• Malaria				
- how to recognize	0	1	2	3
- how to treat with chloroquine	0	1	2	3
• Diarrhea and dehydration				
- how to recognize	0	1	2	3
- how to treat with CRT	0	1	2	3
• Logistical planning for health services	0	1	2	3
Training of Trainers (TOT)				
• Task analysis	0	1	2	3
• Experiential learning design	0	1	2	3
• Facilitation Skills	0	1	2	3
• Group dynamics	0	1	2	3
• Planning, conducting and evaluating workshops	0	1	2	3
Other_____	0	1	2	3
Other_____	0	1	2	3

Module 1: Climate setting and assessment

Session 1: Sharing perceptions of health education
Session 2: General assessment
Session 3: Defining the training course objectives
Session 4: Training program evaluation

Session 1: Sharing perceptions of health education

Trainer Attachment 1A: Suggested symbols for sharing perceptions exercise

TOTAL TIME: 2 hours

OVERVIEW

Setting a climate of sharing and active participation during the first few days of the program is essential to good training for adults. Just as important, participants and trainers need to come together and begin to establish identity as a group. In this opening activity, participants share their feelings and perceptions about being here in the program and about their future roles as health educators. Afterwards, the trainer provides participants with a brief overview of their technical health program.

OBJECTIVES

• To become better acquainted with one another and begin to form a group. (Steps 1-5)
• To share perceptions about health education and future roles as community health educators. (Steps 3, 4)

RESOURCES

Trainer Attachment:

- 1A Suggested Symbols for Sharing Perceptions Exercise

MATERIALS

Markers and newsprint with symbols drawn.

PROCEDURE

Trainer Note

Before this opening session, draw four symbols related to the participants' technical program and similar to those in Trainer Attachment 1A. Draw each of the symbols on a different sheet of newprint. Avoid extraneous and possibly interfering or confusing details. The examples should be as simple as possible. Post the symbols on the four walls of the meeting room and, if practical, have chairs near each one. Cover the symbols with a blank sheet of paper or fold them up from bottom to top and secure with tape until Step 2.

In Steps 2 and 3, participants will use the four drawings to describe and share some of their feelings about being involved in the training course. They will also use the same symbols to discuss their perceptions about health education. This kind of activity works best when the trainer keeps the drawings simple, asks clear questions, and allows the participants as much room as possible for interpretation and expression.

Step 1 (30 min)
Getting Acquainted With One Another

Explain to participants that perhaps the most significant element in beginning a training program is to get to know the other people with whom they will be working. Ask them to

participate in an ice-breaking activity that will help everyone learn names and faces and find out new things about fellow group members and trainers.

Trainer Note

Any one of various ice-breaking games can be employed in this step. Several examples are given here. Other ideas can be found in Training Attachment 53B (Ice-Breakers and Warm-ups) in Session 53 (Training Design).

<u>Alliteration Name Game</u>: Trainer begins by giving his or her name followed by an adjective which describes how he or she is feeling at the moment and which begins with the first letter of the name (e.g., "Mike Motivated" or "Nancy Nervous"). Moving clockwise around the room, each participant then takes a turn at repeating all the preceding names and descriptors and adds his or her name to the end of the growing list. The game ends when all participants have added their names and have tried to repeat the list.

<u>Superlatives</u>: Participants silently study the composition of the group and select a superlative adjective that describes themselves in reference to the others (e.g., shortest, most nervous, oldest). Moving around the room, they tell their adjectives, give an explanation, and check the accuracy of their self-perceptions.

<u>Who Am I</u>: Trainer gives participants paper, markers and string, and asks them to answer the question "Who Am I" by drawing a pie with wedges that illustrate major areas of their lives. Participants then hang their sheet around their necks and move around the room meeting people, but without speaking. Afterwards, the trainer asks participants to find two or three other people with particularly interesting "pies" and ask them questions about the graphic information.

<u>Fire of Your Life</u>: Trainer provides a box of wooden matches. Participants sit in a circle and have the time it takes for a match to burn to say what they want about themselves. This is particularly effective with large groups.

Step 2 (20 min)
Sharing Feelings Through Symbols

After conducting one of the ice-breaking activities, ask four people to uncover the symbols that have been posted around the roam. As participants are looking at the symbols, write the following question on the board:

- Which symbol characterizes how you feel right now?

Ask participants to move around the room, examine the symbols and choose one, then move to that area and introduce themselves to others gathered there, sharing each of their reasons for choosing that particular symbol.

After people have had a chance to talk for 10-15 minutes, ask a volunteer from each group to share some of the themes that came out in their discussions.

Step 3 (25 min)
Exploring Perceptions of Health Education

Repeat the process using the following question:

- Which symbol best represents what health education means to you?

Again, have participants form clusters and discuss their perceptions of health education. As the small groups summarize their perceptions for the others, point out similar themes and ideas which emerge and help the group draw some general conclusions about their future roles as health workers and educators.

Step 4 (20 min)
Overview of the Health Program

When the groups have finished reporting, bring everyone together. Building on what just came out of the discussion of health education, give the group a brief overview of their job assignment in primary health care programs and, where applicable, CCCD activities. Also, briefly introduce participants to the concept of health education as defined in the training course.

Step 5 (15 min)
Personal Expectation of the Program

Close the session by asking participants to refer once again to the four symbols. Tell them to stay seated this and select the symbol(s) that represents their personal expectations for the upcoming training. Ask three or four participants to share their selection and explain their expectation.

Tell the group that they will have an opportunity to discuss specific expectations and needs more fully during Session 2.

Trainer Attachment 1A: Suggested symbols for sharing perceptions exercise

Suggested symbols for sharing perceptions exercise
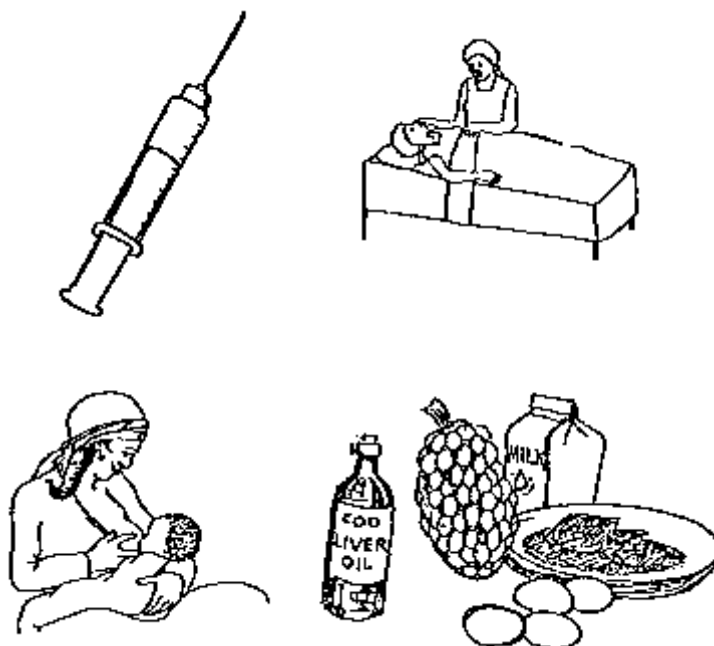
Session 2: General assessment

Handout 2A: Pretest
Handout 2B: Pretest answer sheet

TOTAL TIME: 2 hours

OVERVIEW

In the first session, participants are given a brief overview of their technical health program and Primary Health Care. During this session the group completes a pretest that helps them assess their knowledge on certain primary health care activities. Then they work through their answers by pooling their information in a large group discussion. Through this process participants and trainers can more accurately define their training needs and adapt their training schedule accordingly during the next session (Session 3, Defining The Training Course Objectives).

OBJECTIVES

• To assess entry-level knowledge of primary health care and its related program activities. (Step 1)
• To identify areas of skill, knowledge and interest among the participants. (Step 2)

RESOURCES

Handouts:

- 2A Pretest (To be adapted by trainer)
- 2B Pretest Answer Sheet

MATERIALS

Newsprint, markers, pencils

PROCEDURE

> **Trainer Note**
>
> As stated in the Trainer's Guide, this course is comprised of seven modules. Preceding each module are the behavioral objectives for that module. Learning objectives are given in each session. These objectives should be used when developing an instrument or pretest, to assess the knowledge of the participants. An example of a pretest developed from the context of each session in this manual is given in Handout 2A. Based on the sessions in this manual that have been selected for inclusion in training program, you will need to adapt or change Handout 2A to reflect your program-specific learning objectives. Please note that the pretest should be followed by a post test (using the same questions) administered at the end of the training program.
>
> The pretest is intended to enable individuals to assess their knowledge and analytical skills in the areas of primary health care. As such, it should be administered in a non-threatening manner. Encourage the participants to view it as a means for clarifying their strengths and weaknesses in this area.
>
> Assessing participants' skills, while more time consuming, is equally important. As stated in the Trainer's Guide, the very nature of these experiential sessions provides participants the opportunity to practice and demonstrate proficiency in the major skill areas.

Step 1 (80 min)
Knowledge Assessment

Introduce and distribute Handout 2A (Pretest). Explain that it is an outline of the main concepts and technical information to be covered during the course of the participants training, and that it can be used throughout the training as a worksheet.

Ask participants to complete the pretest and to write "don't know" whenever they cannot provide the information requested.

Step 2 (30 min)
Information Pooling

Using the pretest as an outline hold a short discussion on the following points:

- How they arrived at their individual answers for the test (for example: personal experiences, prior education, guesses, etc.)

- What local/community-based experiences they have had with some of the primary health care activities addressed in this pretest.

- How their experiences, skills and knowledge in this area compare with that of the other participants.

Ask a participant to volunteer to serve as a recorder. Ask the recorder to jot down comments, questions, impressions and experiences on newsprint.

Distribute Handout 2B (the Pretest Answer Sheet) and allow the group 5-10 minutes to review the answers. Next have the group discuss any major concerns or findings they observed in this brief review of their answers. Close this session by having the group draw conclusions about the diversity or similarity in knowledge and skill among the group.

Trainer Note

At the end of this session, collect the participants' pretests and explain that you will use it to gauge their knowledge and to identify areas in the training that will need more emphasis. An alternative to distributing Handout 2B (Pretest Answer Sheet) is to collect the pretests and distribute the sections corresponding to the sessions being covered that day or week. In this way, participants can use the pretest as a guide to assess their individual progress in a non-threatening manner and to correct their own answers. Whether or not this same instrument serves as the post test of the participants' knowledge, time should be allotted at the end of the course to go over the test questions and answers once again.

Handout 2A: Pretest

Name_____

I. Primary Health Care.

1) Define Primary Health Care. (Session 5)

2) List the eight components of Primary Health Care. (Session 5)

3) Describe and/or diagram the organizational structure of the host country's health care delivery system. (Session 6)

4) Describe the host country's intersectoral/multinational approach to Primary Health Care. (Sessions 6, 7)

5) List three traditional health beliefs, practices and/or socioeconomic conditions which affect individual, family and community health. (Session 8)

Traditional Health
Family Health
Community Health

II. Community Analysis and Involvement

1) Give three reasons why it is important to learn about the community. (Sessions 9, 12)

2) List eight major areas of information that need to be collected to learn about the community. (Session 9)

3) Name three techniques that can be used to gather information. (Sessions 9, 10)

4) Define the terms survey and surveillance and state the six major steps that comprise a surveillance system. (Session 13)

5) State three ways to involve community members and leaders in the planning and implementation of programs. (Session 14)

6) Define the term Counterpart and list two reasons for working with a Counterpart. (Session 15)

III. Health Education

1) List the steps you would go through to plan a health education project in your community. (Session 16)

2) What are 4 questions you can ask to determine if a particular health problem in your community is a priority problem? (Session 17)

3) List the information that needs to be included when writing a good objective. (Session 18)

4) Distinguish monitoring from evaluation and describe two types of evaluation that need to be done. (Sessions 21, 22)

5) List at least five nonformal education techniques that you can use in health education. (Session 23)

6) List the four steps of the experiential learning cycle and give an example illustrating what you would do for each step. (Session 23)

7) Look at the picture below. Will it be effective in communicating good personal hygiene techniques to rural villagers in the host country? yes___ no___

List three kinds of criteria that you used to assess the picture. (Session 24)
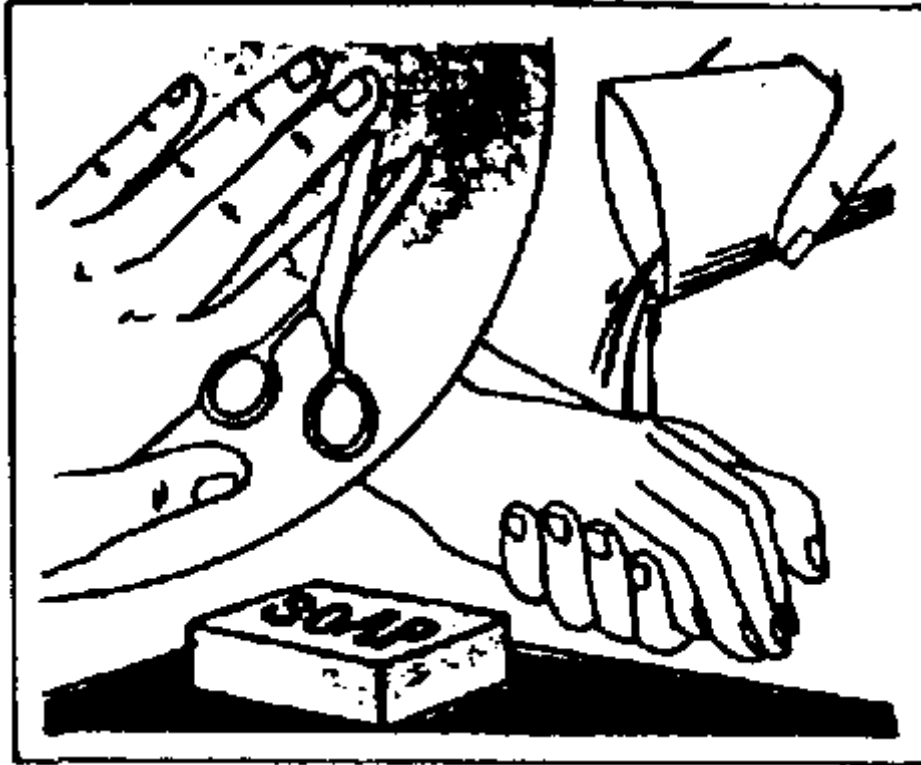
8) List three roles for mass media in health education projects at the community level. (Session 25)

9) Is pretesting of pictures worth the time and cost? yes _ no _ Explain your answer. (Session 26)

IV. Nutrition

1) Categorize foods into three groups and give one example of a local food for each group. (Session 29)

Food Categories

1. _____ 2. _____ 3. _____

Local Food

1. _____ 2. _____ 3. _____

2) List three factors which contribute to nutritionally at-risk infants. (Session 30)

3) Describe three different anthropometric measures that are used to assess children's nutritional status. (Session 30)

4) State three reasons for using the Road to Health chart. (Session 30)

5) Describe the weaning diet of a six month old infant. A 12 month old infant. (Session 31)

6) List three causes of malnutrition. (Session 32)

V. Communicable Childhood Diseases

A. Immunizable Diseases

1. Describe the major clinical signs and symptoms of measles. (Session 33)

2. Describe two ways that neonatal tetanus is transmitted. (Session 34)

3) At what ages should you give a child each of these vaccines? (Sessions 33, 34, 35)

DPT:
TT:
OPV:
Measles:
BCG:

B. Malaria

1. Identify the two high risk groups for malaria. (Session 38)

2. List three signs and symptoms of malaria. (Session 38)

3. Explain the difference between presumptive treatment of malaria and prophylactic treatment. (Session 38)

4. Explain the mode of transmission of malaria. (Session 38)

C. Diarrheal Diseases

1. Explain the primary way diarrhea! diseases are transmitted. (Session 39)

2. Name three signs of severe dehydration. (Session 40)

3. List three things to do when a child has some dehydration. (Session 41)

4. List the ingredients in ORS packets. (Session 41)

5. Explain why simple rehydration (fluid replacement) is not enough for the treatment of diarrhea and prevention of dehydration. (Session 41)

6. List three local beliefs and practices that affect diarrhea and how it is treated. (Session 42)

VI. Training of Trainers

1. List three advantages of using experiential learning activities in training programs for community health workers. (Session 46)

2. State three reasons why a task analysis should be performed when planning a training program. (Session 47)

3. Write an example of a behavioral objective and state three reasons why we use behavioral objectives in training programs for health workers. (Session 48)

4. Name two training techniques you would use in teaching knowledge? Teaching Skills? Teaching attitudes? (Session 49)

5. In the context of group dynamics, briefly distinguish between the dimensions of "content" and "process" in group work. (Session 50)

6. Name three types of decision-making commonly used by groups. (Session 50)

7. Describe four factors that help a trainer define his or her role in a workshop. (Session 51)

8. Explain the relationship between behavioral objectives and evaluation in the context of a training workshop. (Session 52)

9. What kinds/types of information would a simple plan include for a two day workshop with health workers? (Session 53)

Handout 2B: Pretest answer sheet

I. Primary Health Care

1. - "PHC is a practical approach to making essential health care universally accessible to individuals and families in the community in an acceptable and affordable way and with their full participation".

2. - Education concerning prevailing health problems and the methods of preventing and controlling them,

    - Promoting food supply and proper nutrition

    - An adequate supply of safe water and basic conditions

    - Maternal and child care, including family planning

    - Immunization against the major infectious diseases

    - Prevention and control of locally endemic diseases

    - Appropriate treatment for common diseases and injuries

- Provision of essential drugs

3. - This will vary with the country.

4. - This will vary with the country.

5. - This will vary with the country.

II. Community Analysis and Organization

1. 1) To Identify the communities' needs

   2) To identify what needs/priorities the community feels is important

   3) To determine what resources are available.

2. 1) Kinship

   2) Education

   3) Economics

   4) Politics

   5) Religion

   6) Recreation

   7) Association

   8) Health

3. Observation

   Listening

   Interviewing

4. Survey's are special studies that are conducted to gather data usually from outside the health center at a specific point in time and are based on a sample that is representative of that population.

   Surveillance of disease is the collection, interpretation and dissemination of health related information. Surveillance methods include routine disease reporting, (poison) active surveillance, and representative surveys. The six major steps that comprise a surveillance system are:

1) Identify cases

2) Count reported cases

3) Analyze reported cases

4) Take action

5) Report promptly

6) Monitor monthly and yearly totals

5. 1) Teaching techniques that actively involve community members.

2) Starting with a project that will produce results quickly before going on to more long-term efforts.

3) Building an local self-help traditions, beliefs, customs and religious values.

6. Counterpart maybe defined as one having the same functions or characteristics as another; i.e., equivalent or complement.

Two reasons for working with a Counterpart are:

- He or she may help you better understand and interpret the needs of a community

- He or she will be able to continue the program after you have left.

III. Health Education

1. The steps to follow when planning a community health education project are:

- Learn about the community
- Identify and Analyze health problems
- Set objectives Select strategies
- Develop a project plan
- Identify resources and prepare materials
- Implement and monitor the project
- Evaluate and revise the project plan

2. To determine problems, ask these questions:

- Does it affect many people (is it a common problem?)
- Do many people feel it is a problem? (is it widely recognized as a problem?)
- Does it cause many deaths or serious illnesses? (is it a serious problem?)
- Can it be solved using community resources?

3. The conclusions about what information belongs in an objective should include:

- <u>Who</u> will do the changing?
- <u>What</u> needs to change?
- <u>How much</u> change?
- <u>When</u>? By what date or time?
- <u>Where</u> will the change occur?

4. Monitoring means to closely observe or check on a routine basis. Through monitoring ongoing information about project progress is gathered, using pre-established benchmarks or milestones.

Evaluation implies comparing actual work or usage of service to what was expected to be achieved. Two types of evaluation need to be done, Process Evaluation and Outcome Evaluation. -process Evaluation, periodically looks at our strategies and activities and ask the question's: "Are we following the strategy we said we would follow or are we doing something else? If, we are following our strategies, what is our assessment of their adequacy, effectiveness, appropriateness, efficiency?" In Outcome Evaluation, you look at your objective, at the predetermined time, and ask the question "Did we accomplish what we set out to do

5. Some examples of nonformal education techniques to use in health education are :

Role Play	Story telling
Large group discussion	Demonstrations with skills practice
Small group problem solving	Brainstorming
Drama	Field trips
Songs	Drawing and discussing pictures
Simulation	

6. The steps of the experiential learning cycle are:

Experiencing (doing something)
Processing (discussing reactions and observations)
Generalizing (deciding what that experience tells you about the real world)
Applying (planning more effective behavior).

The example should be comparable with the one given in Handout 23A, Session 23.

7. Criteria for evaluation of pictures are:

- Does it help accomplish the objectives?
- Is it appropriate for the local culture?
- Is it well designed? (Is it easy to see, simple, well organized, focused)

8. Some of the ways WHO views the role of mass media in education as follows:

- to help strengthen political will by appealing to policy makers;

- to raise general health consciousness and clarify options concerning actions that have a strong bearing on health levels;

- to help deliver technical messages;

- to foster community involvement by reflecting public opinion, encouraging dialogue and facilitating feedback from the community.

9. Yes.

Pretesting pictures can save time and money by identifying whether they get and hold interest and whether they communicate the intended message.

Pretesting also provides a way to learn more about the community.

IV. Nutrition

1. Answers will depend on what three categories are chosen and what food stuffs are available in your country. The following is an answer based on Trainer Attachment 29A.

Food Categories			
Local Foods	Body Building Foods	Energy Foods	Protective Foods
1. Fresh Fish	x		
2. Millet	x	x	
3. Mango			x
4. Palm Oil		x	

2.

1) Maternal weight below 43.5 kg.
2) Failure to gain 0.5 kg. a month in the first three months of life
3) An episode of measles, whooping cough and severe repeated diarrhea in the early months of life.

3.

1) arm circumference
2) weight for age
3) weight for height

4.

1) Keeping pertinent and concise medical records on children during critical development stages.

2) Encouraging mothers ongoing involvement with an Under-Fives clinic.

3) Providing quick visual means of monitoring a child's developmental status.

5. Weaning foods should be introduced to a child between 4 and 6 months of age. In addition to breast milk a child at 4 months of age should be given once a day a bland well-mashed porridge comprised of fruits, vegetables and the local staple grain or tuber. At 6 months of age, in addition to breast milk a multimix food, composed of a carbohydrate food, a protein supplement, a vitamin and mineral supplement and a calorie

supplement should be served 2 to 4 times a day. At 9 months of age a child can manage easily chewable foods. The child in addition to breast milk should be given the multimix foods about 3 times daily, each dish providing about 220 calories. Between 9 and 12 months a child should be given between 1 to 1 1/2 cups of multimix food four to six times a day.

6. Several causes of malnutrition include:

Biological causes such as:	Physical causes such as:	Social causes such as:
Malaria	Low birth weight	Abrupt weaning
Diarrhea	Lack of sufficient	Bottlefeeding
Measles	protein/calories in the diet	Inadequate medical care.

V. Childhood Communicable Diseases

A. Immunizable Diseases

1. High fever before rash

   Cough

   Runny nose

   Redness of eyes

   Raised rash

2. Usually by an unsterile instrument used to cut the cord or "packing" the umbilicus with contaminated substances.

3. The WHO recommended schedule for vaccinations is as follows:

   DPT - From six weeks of age with two additional doses separated by four weeks.

   TT -Two doses separated by four weeks as early in pregnancy as practical and/or a booster dose for those pregnant women who have completed the series but have not been vaccinated within the past three years

   OPV - same as DPT

   Measles - nine months of age

   BCG - at birth

B. Malaria

1. Young children

   Pregnant women

2. shaking chills

   high fever

   headache

3. Presumptive Treatment means to treat before the disease is confirmed by a laboratory test.

   Prophylactic Treatment means preventing infection or illness by taking anti-malarial drugs on a regularly scheduled basis.

   Malaria (continued)

4. All forms of malaria are spread by the bite of an infected female anopheles mosquito. The mosquito bites a person and injects young forms of the parasite into the person's blood. The young parasites travel through the blood stream to the liver. The parasites grow to their next stage of development in the liver (merozoites). In 6 to 9 days, the young parasites leave the liver and enter the blood stream again. They invade the blood cells, finish growing and multiply quickly (erythrotic stage of infection). The parasites increase in number until the red blood cells begin to burst open, this makes the patient feel cold. The parasites then attack other red blood cells. This makes the patient's temperature rise and feel hot.

C. Diarrheal Disease

1. Fecal- Oral Route (i.e. hand to mouth)

2. (1) no tears, (2) very fast and weak pulse, (3) no urine for 6 hours.

3. (1) give ORS packets, (2) continue breastfeeding, (3) give some light high calorie food.

4. sodium chloride, sodium bicarbonate or trisodium citrate, potassium chloride and glucose.

5. Simple fluid replacement is not enough for the prevention of dehydration because more is lost than just fluid in diarrhea episodes; important salts are lost and an electrolyte imbalance often occurs. Fluid replacement doesn't treat diarrhea as it is usually a self-limiting disease.

6. This will vary with the country.

VI. Training of Trainers

1. Any three of the following:

- it is based in the knowledge or of experience of the learner.

- it is a problem-solving approach to learning and as such resembles "real life" learning

- it permits active participation and "hands-on" experience for everyone involved, thus facilitating skill acquisition, skill development, attitudinal changes)

- it encourages participants to share their problems and work together to identify viable solutions

- it helps participants "learn how to learn".

2. Any three of the following:

- Task analysis can help you, as a trainer, to determine <u>what</u> to teach.

- Task analysis can help the trainer identify performance discrepancies by correcting only <u>discrepancies</u> (instead of retraining a worker in his entrie job) the trainer can achieve far better results with less training costs and time.

- Task analysis can help administrators keep job descriptions performance oriented (action-oriented).

- Task analysis can help trainer and administrators focus on the <u>valuable</u> actions that each worker does as part of his job.

- Task analysis can help administrators develop <u>measures</u> of the worker's job - thus making it more manageable.

3. A good behavioral objective answers the following questions: Who? does what? to what standard of quality? quantity? time? Given what? or under what conditions?

- Facilitate instructional design and development by providing clear goals to work toward.

- Facilitate appropriate sequencing, eliminating gaps and overlaps.

- Promote more efficient communication between trainers, administrators, researchers, and trainees.

- Permit students to be more efficient learners, when they find out what is expected of them.

- Eliminate the time wasted when trainees can already achieve all or some objectives before beginning a course.

- Tend to impose a philosophy of <u>trainer responsibility</u> for helping learners master objectives.

4.

Knowledge - lectures   film/sides
          handouts   programmed learning

Skills	- practical experience demonstration projects	roleplay/simulations problem-solving
Attitudes	- story-telling Role-play	Village-theatre cultural incidents

5. Content: One may think of content as that material which the group is discussing, i.e., ideas, notions, proposals, opinions, facts, etc. - What an efficient recording secretary would write.

Process: One may think of process as the underlying factors which exist in a group situation, i.e., interpersonal relations, feelings, attitudes, mode of handling disagreement and agreement, general tone and climate--How the group functions.

6. Any three of the following:

Majority rule	consensus
Unanimity	polling
Self authorization	handclasp
plops ("non-decision")	baiting

7. Any four of the following:

- kinds of learner styles represented in the workshop group.

- the preferred trainer role of the workshop leader and the ability of that leader to adapt to another role.

- experience of the group members as a group (i.e., is it a newly-formed group or have they worked together previously? At what stage are they in their group growth?)

- goals and length of the workshop.

- technical content of the workshop.

- cultural/social homogeneity of the group.

- cultural norms regarding group work, learning, feedback. - physical resources available to the training situation.

- the development-worker role of the PCV.

8. Evaluation consists of testing procedures or test items in which the trainee performs the same behavior described in the behavioral objective. Once you have stated clearly what the Trainee will be able to do at the end of training, evaluating whether or not you have achieved your goal can be very precise. At the end of the training program, you

have the Trainee do that same action. If he can perform it correctly, then your training has been successful if he cannot, then your training needs improvement.

9. A list of objectives and activities with scheduled times, materials, evaluation methods, and assigned coordinator/facilitators.

Session 3: Defining the training course objectives

Handout 3A: Self-assessment worksheet

TOTAL TIME: 1 hour, 30 minutes

OVERVIEW

Up to this point participants have been given an overview of their training program and they have examined their own skills and knowledge that they bring to this program. In this session they review the training objectives, comparing them with individual TAC sheets, descriptions of work they have received, expectations of host country agencies, their pretest and their self-assessment worksheets. Through this process, participants and the trainer exchange their expectations about the training, recognize the flexibility in the training design, identify opportunities for peer teaching and begin to consider their role as health workers in the context of primary health care.

OBJECTIVES

• To identify individual expectations about the training. (Steps 1, 2)
• To examine the training objectives and schedule and make modifications as appropriate. (Steps 3, 4)

RESOURCES

Handouts:

- 3A Self-Assessment Worksheet
- 3B Peace Corps TAC Sheet (to be provided by trainer)

Trainer Attachments:

- 3A Training Calendar (to be prepared by trainer or Peace Corps staff)

MATERIALS

Newsprint and markers

PROCEDURE

Trainer Note

As this session focuses on the participants and trainer jointly reviewing the training

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course objectives and agenda, it is imperative that you read the sessions in advance in order to provide the necessary background detail that will be needed when modifying the course schedule to meet the participants' identified needs. Also, prepare for distribution in Step 3 a sheet of the Behavioral Objectives (found at the beginning of Modules 2 through 7), that relate to the sessions being covered in the training program.

Step 1 (15 min)
Self-Assessment

Distribute Handout 3A (Self-Assessment Work sheet). Allow participants time to complete this form and ask them to hand in the worksheet.

Trainer Note

Although the participants may not have a clear idea of exactly what they want or need to know at this point in the training, the opportunity to write down their ideas after taking a pretest will force them to reflect on their needs and expectations. The worksheet along with their pretest answer sheet provides a reference for evaluation during the training as well as at the end.

The self-assessment worksheet should be collected and used by the trainer along with the pretest to gauge the level of knowledge of the group and individuals. After recording the information from the worksheets, return them to the participants. You can refer to this information throughout the training to mix knowledge and skill level in small groups.

Step 2 (35 min)
Sharing Expectations and Concerns

Ask for a person to act as a recorder. Have each participant share one example of the skills, knowledge, or experience they want to gain by the end of their training. Based on this list have the participants form three small groups that combine, in as much as possible, one person with a certain skill (cognitive, technical) with one person who lists this as a desirable outcome of their training.

Distribute Handout 3B (TAC sheet) and ask the small groups to spend about 15 minutes reviewing these sheets and, in light of this and previous information, have them share and discuss the expectations and concerns they have for this program. Have them focus their discussion on answering the following questions:

- Why did you come to this training?
- Does the TAC sheet information concur with your expectations?
- What do you hope to accomplish?
- What is the best thing that could happen?
- What is the worst thing that could happen?
- What is some barrier or obstacle that might prevent you from fulfilling your expectations?
- How can these obstacles be overcome?

Reconvene the group and ask them to share some of the expectations and concerns expressed in their groups and record them in two columns on newsprint.

Trainer Note

The list of expectations and concerns may be used to periodically evaluate how well the training program is:

- living up to expectations
- meeting needs
- providing the kind of education that participants find most useful.

At the end of training, the lists may be used as reference material to evaluate the entire PST and to make recommendations for the future. Point out that the participants' concerns and learning needs will be examined in more detail during the next step. If sufficient wall space is available in the training center these lists should be kept posted so that the participants can periodically review how the program is or is not addressing their expressed needs and concerns.

Step 3 (35 min)
Reviewing Training Program Objectives and Schedule

Distribute the list of Behavioral Objectives you prepared and explain that these objectives are what the participants are expected to achieve by the end of the training program. Clarify the difference between the behavioral objectives and the learning objectives which appear at the beginning of every session.

Distribute or display on newsprint the training schedule you adapted for this training course and indicate where during the training the aforementioned objectives will be met. Ask the participants to look at the objectives and sessions planned and compare them to the expectations and concerns that they identified in Step 2. Hold a group discussion and answer any questions they may have as to how this training program may or may not meet their expectations. Help the group to see where their specific needs will be met and identify places where the program may be modified to account for other stated areas of interest or concern that do not appear to be covered in the proposed training design.

Close this session by discussing any ground rules that should be addressed. Examples of some rules which may need to be established are:

- Session times
- Punctuality
- Maintenance of rooms and materials
- Appropriate dress
- Sharing of teaching responsibilities

Trainer Note

Provided Trainees have previously received accurate information about their technical programs and job assignments, their list of expectations and concerns should closely

relate to the program that has been planned. One common problem, however, is a tendency to want to accomplish too much for the total number of training hours. Be sure participants understand that because of time constraints, some technical areas are considered lower priority for pre-service training and can be addressed later as in-service training or self-directed learning.

Handout 3A: Self-assessment worksheet

Name_____

Please complete the following sheet for your own reference and some group sharing.

(A) Two skills or concepts on Primary Health Care activities that you bring to this training.

_____
____
_____
____
_____
____
_____
____

(B) Three most important skills that you want to gain by the end of this training.

_____
____
_____
____
_____
____
_____
____

(C) Two ways in which you envision your role as a Volunteer contributing to the achievement of the goal of "Health for all by the Year 2000".

_____
____
_____
____
_____
____
_____
____

(D) One overall or specific personal goal you plan to achieve by the close of the training.

_____

____

____

____

Session 4: Training program evaluation

Handout 4A: Training program evaluation

TOTAL TIME: 1 hour, 30 minutes

OVERVIEW

A constructive evaluation is an important part of any well-designed training program. During this session, participants and trainers will determine how well the training achieved its stated objectives and how the program might be modified to serve the needs of health workers more appropriately in the future. The group will complete an evaluation instrument as well as verbally discuss problems and potential improvements. If the program is longer than two weeks, a mid-point evaluation (using the same instrument) should be conducted as well as the final evaluation.

OBJECTIVES

• To evaluate in writing and in discussion the effectiveness of the training program. (Steps 1, 3, 4)
• To check individual as well as group goal accomplishments during the training. (Step 2)
• To identify specific ways to improve the training design and program implementation. (Steps 3,4)

RESOURCES

Behavioral objectives from each module completed during the course.

Handouts:

- 4A Training Program Evaluation
- 3A Self-Assessment Worksheet (from Session 3)

MATERIALS

Newsprint, markers

PROCEDURE

Step 1 (20-30 min)
Written Evaluation of the Program

Review the session objectives and distribute copies of the evaluation form, Handout 4A, to all participants. Ask them to take 20 minutes to fill out the form and explain that they will discuss the program afterwards.

Trainer Note

Ask participants to take out and refer to their copies of the Behavioral Objectives from each of the modules and the Self-Assessment Worksheet. These handouts were used in Session 3 to establish the base of the program and should now help participants gauge their learning and skill development. If alternate worksheets or forms were used during the initial objective-setting exercise, then tie them in here with these steps. If participants also did daily or weekly evaluations of the course, ask them to refer back to those at this time.

Step 2 (15 min)
Individual Accomplishments

Have participants read back over their Self-Assessment Worksheets from Session 3. In turn, ask each person to briefly comment on their personal accomplishments during the program. The idea in this step is to give each participant an opportunity to share accomplishments in the context of his or her particular job and community.

Step 3 (20-30 min)
Identifying Problems in the Training

Have participants form small groups of four and list on newsprint up to three aspects of the program which have been problematic and possible suggestions for improvement. Encourage participants to be as specific as possible. As the groups finish the task, have them post the newsprint on the wall.

Step 4 (15 min)
Summary and Conclusions

Reconvene the group and review the newsprint suggestions with them. Ask someone to summarize the observations and suggestions for improvement which have resulted from the discussions. Have a participant record these on newsprint for use by the staff later. Circle those observations that seem to be generally agreed upon and most feasible for future implementation.

Close the session by asking the group to comment on the written evaluation instrument and ask them to suggest other ways that program evaluations can be handled.

Handout 4A: Training program evaluation

We need your candid feedback on the training program so that we can make improvements in the design and provide the next group of participants with a richer experience. Please keep in mind the original Training Objectives as you answer the following questions:

1. The objectives of the training program seemed :

```
   +    ---------    +    ---------    +    ---------    +    ---------    +
   1              2              3              4              5
```

Mostly Irrelevant to my PC   Somewhat Relevant   Very Relevant
work

Because : _____

2. During the training course we accomplished the objectives:

```
   +    ---------    +    ---------    +    ---------    +    ---------    +
   1              2              3              4              5
```

Not at all   Somewhat   Entirely

Because : _____

3. The trainers were:

```
   +    ---------    +    ---------    +    ---------    +    ---------    +
   1              2              3              4              5
```

Very ineffective   Somewhat Effective   Very Effective

Because : _____

4. For my learning, the activities used during the sessions were:

```
   +    ---------    +    ---------    +    ---------    +    ---------    +
   1              2              3              4              5
```

Very ineffective   Somewhat Effective   Very Effective

Because : _____

5. The handouts, visual aids, and other support materials used in the sessions were:

```
   +    ---------    +    ---------    +    ---------    +    ---------    +
   1              2              3              4              5
```

Nearly Useful   Somewhat Useless   Very Useful

Because : _____

6. The specific sessions or activities I found most helpful to me in my work were:

_____

7. The specific sessions or activities I found least helpful to me in my work were:

_____

8. These sessions could be improved in the future by: (What could have made these session more worthwhile for you in relation to the Job you have in your workplace and/or community?)

_____

9. The most meaningful things that I learned during this program were:

_____

10. Some other comments I would like to give to the training staff are:

_____

(Adapted from: A Trainer's Resource Guide, Draft Peace Corps)

Module 2: Primary health care

Behavioral objectives

Session 5: Primary health care
Session 6: Health care delivery systems
Session 7: The role of the peace corps volunteer in primary health care in primary health care|
Session 8: Factors affecting health

Behavioral objectives

By the end of this module the participants will be able to:

1. Discuss the Host Country National goals and objectives for Primary Health Care as stated in the country's health plan or policy, in terms of how it incorporates all or some of the eight components of Primary Health Care.

2. Explain how the Volunteer's role can contribute to the implementation and achievement of at least one aspect of the Host Country's Primary Health Care plan.

3. List the national and local agencies, ministries and international organizations with whom the Volunteers will work or collaborate and describe the resources that each organization provides to the host country's Primary Health Care program.

4. Describe at least two traditional beliefs and practices that impact on the individual and or the communities health in relation to the control and or prevention of malnutrition, measles, neonatal tetanus, malaria and diarrheal disease.

Session 5: Primary health care

TOTAL TIME: 2 hours

OVERVIEW

A thorough understanding of Primary Health Care is important for Peace Corps Volunteers involved in health activities such as CCCD activities. In this session participants critically review the WHO/UNICEF concept of primary health care as originally defined at the World Health Conference at Alma Ata, Russia in 1978. They focus on the emphasis of an integrated/multisectoral approach and community involvement. In small groups they develop charts illustrating primary health care which show the place of health education and their assigned programs. Through readings they learn about and discuss different approaches to primary health care.

OBJECTIVES

• To explain why primary health care is an appropriate means of protecting and promoting the health of all the people of the world. (Step 1)

• To describe the eight components of primary health care and give examples of primary health care activities in Africa. (Steps 2, 3)

• To describe the integrated/multisectoral design of health and development that characterizes primary health care and CCCD activities. (Steps 1, 3, 4)

• To identify at least two approaches to implementing primary health care. (Steps 3-5)

RESOURCES

Health: A Time for Justice

Handouts:

- 5A Health Care in The Developing World: Problems of Scarcity and Choice
- 5B Water Supply and Health in Developing Countries: Selective Primary Health Care Revisited
- 5C Selective Primary Health Care

MATERIALS

Projector and screen if movie is shown, newsprint, markers, the Film, "That Our Children Will Not Die" (Ford Foundation).

PROCEDURE

Trainer Note

By way of an introduction to primary health care, you might consider having the participants read <u>Health: A Time for Justice</u> (available through ICE Reference No. HEO79), the day before this session is to be presented. Also before this session you should critically read all the handouts so that you are prepared to facilitate discussions on the provocative concept of PHC. Viewing and discussing the film "That Our Children Will Not Die" is a suggested alternative to reading and discussing the articles. You may consider lengthening this session so that the readings and film can both be included.

Step 1 (15 min)
Understanding The Primary Health Care Approach

Introduce this step by reading and writing the following definition of Primary Health Care as stated at the International Conference on PHC in Alma Ata in 1978.

"Primary Health Care is a practical approach to making essential health care universally accessible to individuals and facilities in the community in an acceptable and affordable way and with their full participation".

"Health cannot be attained by the health sector alone. In developing countries in particular, economic development, anti-poverty measures, food protection, water, sanitation, housing, environmental protection, and education all contribute to health and have the same goal of human development".

Ask participants to look at this definition carefully and then using their knowledge of health care in the U.S. discuss aspects of the Alma Ata definition of PHC, and why some countries may find it a difficult or revolutionary concept to implement.

Trainer Note

Possible questions to facilitate this discussion might include:

- What is meant by essential health care?

- What aspects of health care have been essential to you?

- Is health care universally accessible in the U.S.?

- Are there more physicians and other health personnel and facilities in urban areas as compared to rural areas?

- What is meant by secondary and tertiary health care? How do these levels of care relate to Primary Health Care?

- Do you think that the health care system in the U.S. is acceptable to everyone? If not,

---

why not?

- Do most Americans fully participate in the decisions that affect the kind of health care that is delivered in their area? If not, why not?

- What about the cost of health care? Is it affordable?

- What do you think about viewing health as an integrated part of the political, economic, social and environmental aspects of a country?

Step 2 (15 min)
Defining the Eight Components of Primary Health Care

Present the list of the eight components that the delegates from 134 governments and representatives from 67 United Nations' organizations and other specialized agencies have determined to be essential services provided by primary health care and ask the participants to briefly discuss why they think these areas have been stressed.

Trainer Note

Write the following list of the eight components of Primary Health Care on newsprint and present to the participants:

- Education concerning prevailing health problems and the methods of preventing and controlling them;
- Promotion of food supply and proper nutrition;
- Adequate supply of safe water, and basic sanitation;
- Maternal and child care, including family planning;
- Immunization against the major infectious diseases ;
- Prevention and control of locally endemic diseases;
- Provision of essential drugs;
- Appropriate treatment of common diseases and injuries.

This discussion should focus on:

- How these eight areas can help persons to lead a socially and economically productive life.
- The interrelationship between these eight areas.
- How an integrated approach to health care can most effectively deliver these services.

Conclude this discussion by stating that although most persons agree that primary health care should include these eight essential components, the ways of approaching the implementation of the PHC programs vary from one country and community to another and the following articles they will read and discuss present some of the different approaches/strategies.

Step 3 (20 min)
Examining Different Approaches to Primary Health Care

Have the participants form three groups and assign one of the articles found in Handouts 5A (Health Care in The Developing World: Problems of Scarcity and Choice), 5B (Water Supply and Health in Developing Countries: Selective Primary Health Care Revisited), and SC (Selective Primary Health Care) for reading and brief discussion by each group.

Trainer Note

Ask the participants to keep the basic principals of Primary Health Care in mind when they read these articles and to select one person in each group to prepare a 3-5 minute summary of the article that they have read to present to the large group reconvened for discussion in the next step (Step 4).

The attached articles were selected because they present three different approaches/strategies for the implementation of primary health care.

Step 4 (25 min)
Discussion of PHC Approaches

Reconvene the large group and ask the selected persons from each group to present a summary, not longer than 3-5 minutes, of their articles. Based on their understanding of the different approaches to PHC as presented in the summaries of the articles, have the group discuss and list on newsprint the pros and cons of the different approaches, and decide which ones they feel will be most effective in attaining "Health For All By The Year 2000".

Trainer Note

This discussion should be most provocative given the different approaches to PHC that they have just reviewed and shared in their brief presentations. In this 25 minute discussion the participants should direct their discussion to various aspects or approaches to PHC, some of which include questions concerning:

- What are the different approaches presented in these articles and an what key issues do they differ?

- Is there coordination of the health and health related sectors? (e.g. agriculture, education, finance)

- What are the social and economic determinants of health and ways PHC approaches affect these determinants?

- How is or how should PHC be supported within the national health system?

- What should be the focus of PHC programs?

- What are the constraints on implementing a complete PHC program?

- How should these constraints be addressed? (For example, should they concentrate an two or three particular PHC activities and worry about integrating other activities later when more funds are available?)

- What is or should be the role of International agencies in PHC?

- How does "political will" affect or impact an the PHC approach of providing health for all?

- How does or can strong management capabilities affect PHC programs?

Step 5 (15 min)
Summarizing Primary Health Care

Lead a short discussion on summarizing PHC. Focus this discussion around the following questions:

- From what we have seen and discussed thus far concerning primary health care, how would you explain the meaning of this concept to someone?

- What generalizations can we make about primary health care and its effectiveness as a means of promoting positive health and development?

- We have seen that a key concept in the primary health care approach is integration. Where do you think problems might arise in trying to integrate the various components of primary health care services?

- How will what you have learned during this session help you in promoting primary health care in your primary job assignment? Through secondary activities?

- What are the controversial issues surrounding primary health care?

Step 6 (20 min)
The Role of the Peace Corps Volunteer in Primary Health Care

Based on their understanding of Primary Health Care and the discussions in Session 1 and from other parts of their training on their roles as health educators, ask the group to discuss and develop a diagram for Primary Health Care, identifying where they think they as health care generalists/educators fit in.

Trainer Note

An example of a diagram that may be developed and used for discussion is the following
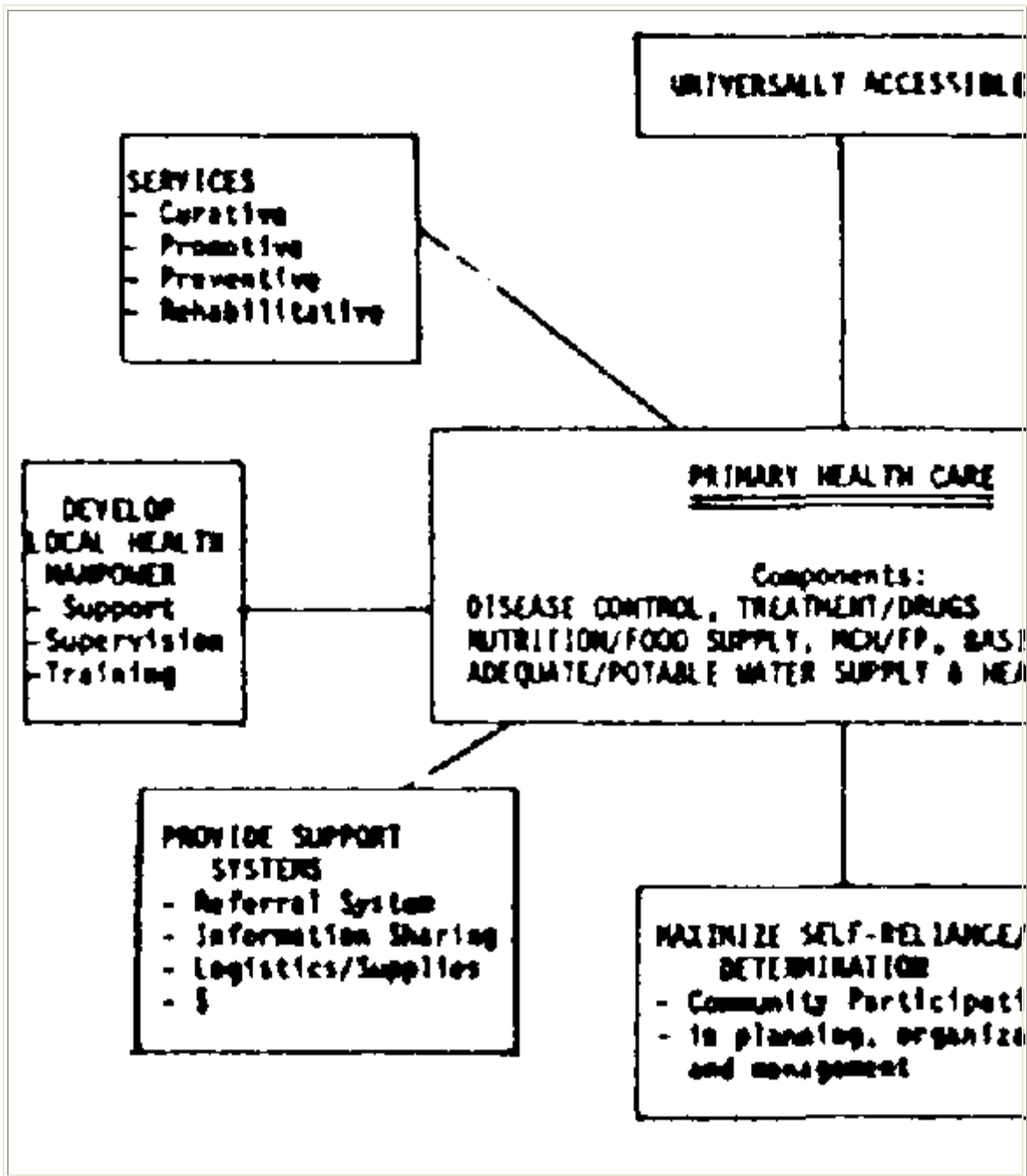
Alternate Step 3 (30 min)
"That Our Children Will Not Die"
Show the film "That Our Children Will Not Die".

Trainer Note
Ask a participant to set up the projector and run the film. Introduce this activity while one of the participants is setting up the projector. Explain that the film they are going to watch discusses a primary health care approach in a particular part of Africa. Advise them to watch the film, keeping in mind the eight basic principles of PHC that they have

just discussed, and to identify ways in which they have been incorporated.

Alternate Step 4 (30 min)
Discussion of the PHC Approaches

After viewing the film, have the group engage in a discussion on how practical the PHC approach is in achieving the health care needs of an individual, family and community, and what some of the difficulties are in implementing this strategy.

Trainer Note

In this 30 minute discussion, the participants should direct their discussion to various aspects or approaches to PHC some of which include questions concerning:

- From what you saw in the film, what were the major health problems and needs of the people in the area where primary health care was practiced? Do these problems differ from what you might find in the U.S.? How?

- How were these problems and needs identified? Handled? Specifically, how did this primary health care approach solve health problems/meet health needs? Were the people involved in helping themselves? How?

- Of the key elements of primary health care outlined before the film, which ones were incorporated into the health care approach in the film? Was the health care accessible, acceptable, affordable? Were the elements integrated?

- What would you say were the essential components of the primary health care approach in the film? Food and nutrition? Sanitation? Maternal and child health? Family planning? Immunization?

- Do you see any ways in which a PC Health Worker might fit into a process/approach like the one illustrated in the film?

Handout 5A: Shattuck lecture - Health care in the developing world: Problems of scarcity and choice

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The views and interpretations in this article are those of the authors and should not be attributed to the World bank, its affiliated organizations, or anyone acting on their behalf.

THE World Health Organization (WHO) and UNICEF, together with representatives of 134 member governments, launched a campaign in 1978 to achieve "Health for All by the

Year 2000" through primary health care.[1,2] The objective of this campaign was to increase the political commitment of member countries to address the health needs of their people and particularly to improve the health status of the rural and urban poor in the Third World. Our presentation describes the difficulties of putting this objective into practice, and what may be possible on the very limited budget available for health in most developing countries.

WHO and UNICEF might well have found the text for their plan in the Report of the Sanitary Commission of Massachusetts, which Lemuel Shattuck presented to the Massachusetts state legislature in 1850.[3] The report was based on a careful survey of the health status of the population of Massachusetts, and its recommendations embodied the essential elements of primary health care: immunization and communicable-disease control; promotion of child health; improved housing for the poor; environmental sanitation; training of community-oriented health manpower; public-health education; promotion of individual responsibility for one's own health; mobilization of community participation through sanitary associations; and creation of multidisciplinary boards of health to assess health needs and plan programs in response to sound epidemiologic evidence. Recognizing the importance of political commitment, Shattuck built a strong public-health constituency by highlighting both the major differences in life expectancy between rural areas and Boston and the deterioration of health status over a decade in major cities in the United States.

The conditions described by Shattuck in the United States in 1850 prevail today in most countries of the developing world (Table 1).[4-6] In low-income countries, life expectancy at birth averages only 51 years, and in several it is less than 45 years. Mortality rates are 10 to 20 times higher for infants and for children aged one to four than in developed countries. Nearly half of all deaths occur in children under five years of age. The major causes are diarrhea! diseases, respiratory infections, tetanus, and childhood infectious diseases such as diphtheria, measles, and whooping cough, all of which can be effectively and cheaply controlled by measures used in developed countries. Malnutrition is important as an associated - and even primary - cause of death in young children, and short birth intervals adversely affect the survival of infants. For those who reach the age of five, life expectancy is only eight to nine years less than in developed countries. The commonest causes of death are similar to those in industrialized countries: cancer, cerebrovascular disease, heart disease, respiratory disease, and trauma. However, in developing countries, tuberculosis ranks among the most common causes of death. These nations are also plagued with endemic diseases such as malaria, schistosomiasis, trypanosomiasis, onchocerciasis, and leprosy, which are major causes of serious morbidity and mortality in adults and children, but for which effective control measures have not been available or have proved difficult to implement or maintain.

Table 1. Health-Related Indicators in Countries with Different Income Levels.[6]

INDICATOR	YEAR	LOW-INCOME COUNTRIES *	MIDDLE-INCOME COUNTRIES **	INDUSTRIALIZED COUNTRIES ***
Gross national	1979	240	1420	9440

product per capita ($)				
Crude birth rate (birth/1000 population)	1979	42	34	15
Crude death rate (death/1000 population)	1979	16	10	10
Life expectancy at birth (yr)	1979	51	61	74
Infant mortality rate (death/1000 live births) ~	1978	(49-237)	(12-157)	13
Child mortality rate (deaths/1000 children 1-4 yr old)	1979	18	10	1
Per cent of population with access to safe water	1975	25	58	~~
Daily per capita cal- vie supply (% of requirement) ||	1977	96	109	131
Adult literacy rate (%)	1976	43	72	99

*Thirty-four low income developing countries with a per capita income of $370 or less us 1979 (China and India are excluded from the low-income group in this table).

** Sixty middle income developing countries with a per capita income Or more than $370 in 1919

*** Eighteen industrial-market economies

~ Weight averages figures in parentheses denote the sample range

~~ Data not available but assumed to be close to 100 per cent

\|\| Requirements based on calories needed to sustain a person al normal levels of activity and health taking into account age and sex distributions, average body weights and

environmental temperatures as estimated by the United Nations Food and Agriculture Organizations

Even in middle-income countries, more favorable national statistics in the aggregate disguise wide disparities between the conditions, on the one hand, of the rural and per-urban poor that are typical of low-income countries and the conditions, on the other hand, of more affluent urban dwellers who are better educated and have better access to health services and whose health status closely resembles the profile in industrialized countries. Table 2 contrasts the high mortality rates for infectious and parasitic diseases in the less developed northeastern and frontier regions of Brazil with the high rates for cancer and cardiovascular diseases in the more affluent southeastern region of the country. As economic development proceeds, the more prosperous regions of the country have the advantages Of greater individual and collective wealth and greater political leverage. Consequently, national health policies give priority to their needs, and the limited resources of hospitals, equipment, drugs, physicians, and other health personnel are concentrated in the urban areas, widening the sap between urban and rural populations.[7]

In the push for development, particularly industrial and commercial development, protective measures for workers and the environment usually lag behind, as they did in the earlier stages of developed countries. These measures are often disregarded because they are initially expensive, and can generally be enforced only by firm legislation and inspection. Rapid development accelerates the appearance of new health problems such as traffic accidents, work accidents, accidental poisoning, and environmental pollution. Similarly, disruption of families and community, migration, and unemployment contribute to a variety of disorders of individual behavior - alcoholism, violence, promiscuity - each with attendant physical and mental risks, counterparts of those seen in industrialized countries.

Urban problems will increasingly dominate the health pattern of the developing world. According to United Nations projections, the urban population in developing countries will increase by 1.32 billion between 1975 and 2000; by 2000 it will average 43 per cent of the population of the less-developed regions overall, and 75 per cent of the population of countries in Latin America.[8] The primary-health-care approach for rural health problems may need to be modified to address different problems arising from life styles and diets in the urban setting. For example, recent analyses indicate that in several countries there are large numbers of malnourished urban dwellers, and that their numbers are increasing more rapidly than those of the rural malnourished.[9]

Table 2. Regional variations in Cause-Specific Mortality in Brazil, 1970.*

CAUSE OF DEATH	REGION		
	NORTHEAST	FRONTIER	SOUTHEAST
	per cent of all deaths		
Infectious and parasitic diseases	24.5	26.6	11.2

| Neoplasms and cardio-vascular diseases | 21.1 | 19 1 | 42.1 |

* Adapted from de Carvalho AVW, de Moura Ribeiro E. Estudo da Mortalidade proporcional, segundo Grupos de Idade e Causas de Obito, em algunas Capitais Brasileiras, em 1970. Revista Brasileira de Estatistica. 1976; 37(148):475 (as reported in World Bank Brazil: Human Resources Special Report. Washington, D.C., October 1979).

STAGES IN THE EVOLUTION OF HEALTH SYSTEMS

The pattern of diseases in northern Europe and the United States evolved in stages over the past two centuries, and with each stage distinctive control measures were introduced.

The first stage, dominated by major and minor infectious diseases linked to poverty, malnutrition, and poor personal hygiene, responded slowly to improved food supply, housing, and literacy made possible by greater prosperity, and to public-health measures, particularly safe water supply, sanitation, and immunization campaigns. The steady decline in infant mortality (Table 3) and the reduction in child mortality as a percentage of all deaths (Table 4) may be attributed to these changes. As scientific advances provided a wide array of immunologic and therapeutic techniques to control acute bacterial and viral infections, life expectancy increased, and heart disease, cancer, and stroke replaced respiratory and gastrointestinal infections as the principal causes of death. For example, in the United States in 1900, the three leading causes of death (influenza and pneumonia, tuberculosis, and gastroenteritis)-accounted for over 30 per cent of all deaths, whereas heart disease, cancer, and strokes were responsible for 18 per cent of deaths. By 1975, only influenza and pneumonia (3 per cent) ranked in the top 10 causes of death, whereas heart diseases (38 per cent), cancer (20 per cent), and stroke (10 per cent) together accounted for over two thirds of all deaths.[10]

The second stage in the evolution has been dominated by chronic diseases, particularly cardiac and cerebrovascular diseases, cancer, diabetes, arthritis, and mental disorders. As the threat of infectious diseases receded, public-health measures were relegated to a regulatory role, and personal health services became the primary channel for prevention and treatment of health problems. The development of expensive and complicated technology for diagnosis and treatment has led to the transfer of care from doctors' offices to elaborate and expensive hospitals. Doctors and patients have looked to these curative techniques and facilities to provide striking improvements in health. Sadly, experience has shown that for many problems the benefits hoped for have not been realized. As Cochrane has noted, the massive public and private expenditures on health, now close to $1,000 per capita annually for capital and recurrent costs in the wealthier industrialized countries, have not produced commensurate improvement in the health status of the population.[11] Only a small proportion of the interventions used are of proved effectiveness, and the benefits to be gained from the intensive services for terminal illnesses are at best marginal.

Table 3. Infant Mortality in Selected Countries. 1750-1975.*

PERIOD	COUNTRY

	SWEDEN	FRANCE	UNITED STATES
	no. of deaths/1000 live births		
1751-1755	206	277	**
1851-1855	144	166	**
1901-1905	91	141	124
1971-1975	10	14	18

* Source - Arriaga E, Boulanger PM, Bourgeois-Pichat J, et al. La Mortalité des Enfants dans le Monde et dans l'Histoire. Liege, Belgium: Department de Demographie, Université Catholique de Louvrain, Ordina Editions, 1980: 147-9.

** Data not available.

A third stage of evolution can now be defined. It reflects a shift from preoccupation with intrinsic disorders of structure and function of the body, to an awareness of the health hazards arising from environmental exposure to an increasing number of chemicals, drugs, and other toxic substances and from changes in the social conditions of the family, community, and workplace that influence behavior and life style and are associated with absenteeism, violence and alcohol and drug abuse of epidemic proportions. The personal health-care system concentrates on the consequences of such processes. New approaches are needed to encourage the healthy to avoid patterns of behavior that lead to disease, and to identify and treat the social and environmental causes of disease that originate in the community. Industrialized countries have recently recognized the importance of this third stage and the need to adapt their health systems to give greater emphasis to health promotion and preventive measures at individual and community levels.[12,13] This stage is not new. These concerns provided much of the impetus for reform of industrial and other health practices for well over a hundred years. The meaning of the third stage is a return to the recognition that responsibility for health should not be exclusively the prerogative of the health professions - that protective and preventive measures have to be the responsibility of the individual and the society.

Industrialized countries have evolved through the three stages over the course of more than a century (Table 3). In contrast, developing countries face the challenge of coping with all three stages simultaneously: the rural and pert-urban poor who constitute a majority of the population are in the first stage; the influential, more affluent urban dwellers are at the second stage; and manifestations of the third stage are already apparent because of environmental deterioration and the social disruption associated with massive urban growth and unemployment. Furthermore, developing countries must cope with just a fraction of the financial and human resources available to their industrialized counterparts. In any circumstances, but particularly in these, the strategy to improve health must be selective. Success will depend heavily on correctly identifying the most important problems in each population group, selecting the most cost-effective interventions, and managing the services efficiently. Uncritical acceptance of new and expensive high technology will not serve the purposes of developing countries. But

developed countries do have much to offer through scientific and technical cooperation. Already, developing countries, by taking advantage of the innovations in the industrialized world (vaccines, microbiologic techniques, and antibiotics, for example) have achieved much faster rates of improvement in health status than those achieved in northern Europe and the United States. However, there are signs that this rate of progress is not being sustained. As Gwatkin and Brandel pointed out (unpublished data), life expectancy in the less-developed regions of the world, which had been rising by 0.64 year annually between 1950 and 1960, slowed to 0.40 year annually 15 years later. Several factors stand out as impediments to progress.

OBSTACLES TO PROGRESS

Uneven Distribution of Health Services

Access to health services is very uneven, and large segments of the rural population are not reached. Health facilities and personnel are concentrated in urban areas, and within the urban population the services are oriented to the middle-income and upper-income groups, neglecting the pert-urban poor. Political considerations may override all other priorities, and little progress can be expected unless there is a political commitment to apply resources where the need is greatest.

There is a shortage of skilled health personnel, particularly in the poorer countries. National averages for physician: population ratios are reported to be 1:17,000 in the least developed countries and 1:2700 in other developing countries, as compared with 1:520 in developed countries. The nurse: population ratios are 1:6500, 1:1500, and 1:220, respectively.[5] These national averages disguise the fact that in some rural areas there may be only one doctor serving 40,000 to 200,000 people. Furthermore, the pyramid of health manpower is inverted, particularly in the least developed countries. Instead of a broad base of inexpensively trained, less skilled personnel working at the community level, priority has been given to expensive training programs for "conventional" doctors, who expect sophisticated facilities and equipment, gravitate to practice in the cities, and have a propensity to emigrate. To achieve effective coverage of the population, large numbers of less skilled personnel need to be trained, and these health workers need to be part of a system that will provide supervision, drugs and supplies, and the support services necessary for their practice. Otherwise dissatisfaction will lead to high turnover of health workers and low utilization of their services as patients bypass the first level of care in the community in favor of higher-level facilities, which properly should function as referral centers. Doctors are key participants in the referral and supervisory systems; if they operate as primary-care workers, their expensive training is wasted and the cost of their practice may outweigh the benefits. The supervisory and managerial role of the physician in the health system must be addressed more directly in the process of medical education and in the career development and rewards for the physician in practice.[14]

Table 4. Child Mortality in Belgium, 1880-1970.*

YEAR	AGE GROUP		TOTAL
	< 1 YR	1-5 YR	(0-5 YR)

	per cent of all deaths		
1880	27.7	13.3	41.0
1900	27.4	9.0	36.4
1920	17.7	4.1	21.8
1950	7.5	1.0	8.5
1970	2.5	0.04	2.6

* Adapted from Arriaga E., Boulanger PM, Bourgeois-Pichat J., et al. La Mortalité des Enfants dans le Monde et dans l'Histoire. Liege, Belgium: Department de Demographie, Université Catholique de Louvain, Ordina Editions, 1980-127.

Lack of Appropriate Technology

A second obstacle to progress is the lack of appropriate technology to address Stage 2 and Stage 3 health problems and to cope with the serious endemic diseases prevalent in the developing world. For Stage 1 health problems, much of the technology needed is already available, and in the case of vaccines technologic advances that would reduce dependence on the cold chain are imminent. In contrast, for Stage 2 health problems, relatively few technologies for dealing with the serious diseases of the adult population are appropriate to the circumstances and financial resources of less developed countries. Most of the technologies that are being transferred from the developed world are expensive, and the equipment is often difficult to maintain. It is necessary to determine which interventions are effective and which yield large benefits at acceptable costs. The greater challenge is in the search for preventive measures to reduce the large burden of illness from cancer, hypertension, diabetes, respiratory, cardiac, and cerebrovascular disease. For Stage 3 health problems, we are still handicapped by inadequate understanding of behavior and the links between social and environmental hazards and specific diseases. We have much to learn about conveying health-education messages, motivating community participation, and using modern communications technology to circumvent the barrier of illiteracy.

The "tropical diseases" (e.g., malaria, schistosomiasis, filariasis, trypanosomiasis, and leprosy) are a particular problem for developing countries, in part because they generally have climates and ecologies conducive to disease vectors. Techniques for ecologic control of vectors or transmission routes are available but are expensive and require repeated application over wide areas. Treatment of patients is generally expensive, sometimes risky, and often delayed. Prophylactic measures such as vaccination are largely undeveloped. Knowledge of the biology of the diseases is far from complete. Research on these diseases has so far been largely neglected by the scientific community and the pharmaceutical industry, which have been preoccupied with cancer, cardiovascular disorders, and the other major diseases of the industrialized world. The Special Program for Research and Training in Tropical Diseases led by the WHO is an

attempt to mobilize the health-science research community throughout the world to focus attention on these neglected tropical diseases in order to discover appropriate technologies for their control.

The scientific and development resources of the developing countries are limited, and their problems are difficult to solve. The most promising results will come from combining the scientific and technologic potential of the industrialized world with the local knowledge of scientists and professionals in developing countries who will have responsibility for applying the new technologies.

Pharmaceutical Policies

The most widely used technologies in health are drugs and vaccines. Shortages of supplies and failure to provide for the timely distribution of drugs and vaccines are serious problems that must be overcome for an effective health program. In looking to the future, however, the problems may be excessive and irrational use of drugs and unsustainable costs to the health system. Patients who consult health personnel expect to receive a prescription or, in some cultures, an injection. As access to health services broadens with the implementation of primary-health-care programs, a rapid increase in the consumption of drugs may be expected. Experience in less-developed countries supports this contention. In China, with nearly universal access to health care, curative medicine occupies 90 per cent of the time of "barefoot" doctors, and nearly all patients receive medication; there is evidence that drugs and traditional medicines account for two thirds of overall health expenditures. In countries with less complete coverage of the population, expenditures on drugs constitute about 40 to 60 per cent of the health budget (as compared with 15 to 20 per cent in developed countries[15]) and over half of private health expenditures. In most developing countries, the majority of drugs are imported, and these outlays are a considerable drain on foreign exchange.

The importance of drugs to the quality of health care, to the credibility of community health workers, to the development of iatrogenic disease (for exam pie, from toxicity or antibiotic-resistant microorganisms), and to the cost of health services makes it imperative that developing countries establish better mechanisms for assessing drug requirements and for purchasing, quality control, storage, and distribution of drugs. Experience in Tanzania and Ghana indicates that savings of up to 70 per cent of the budget for pharmaceuticals could be achieved by promoting generic alternatives and introduction of controls against over-prescription.[16,17] The South Pacific Pharmaceutical Scheme projects cost savings of at least 25 per cent through limiting the availability of nonessential drugs and through bulk purchasing.[18] Without policies for national formularies, procurement, prescription, and pricing, this powerful and ubiquitous health technology could become more of a liability than an asset to the health system.

Management of Health Resources

One of the most difficult and pervasive problems to solve in the establishment of effective health services in developing countries will be deficiencies in management. The health sector presents a formidable organizational challenge. Some of its objectives can be achieved only with the cooperation of other sectors such as water supply and sanitation, education, agriculture, and community development. The delivery of health

services involves widely dispersed facilities, numerous categories of personnel, general and specialized hospitals, vertically organized programs to control individual diseases such as malaria, tuberculosis, leprosy, or venereal disease - each with its own personnel and support services, community health-care programs with multipurpose workers, and a system of indigenous medicine with traditional healers and birth attendants. The different elements need to be organized to reduce conflict and duplication between programs and to provide a coherent system to screen and treat patients according to the level of care required and to refer patients with difficult problems. Supervision and continuous in-service education of health workers, improved logistics and supply to maintain credible services, institution of personnel policies and rewards to maintain the quality, distribution, and morale of staff, and policies and financial arrangements that encourage rational use of the health resources by the public are essential corollaries to enhance sector performance.

The weakest links in the administrative chain of most developing countries are institutions at district and local levels, which are usually poorly staffed, have inadequate authority or control of resources, and are unable to provide the necessary support and supervision of field staff. The development of planning and administrative capability at the district level is of special importance, since this is normally the lowest tier of the health-services organization still communicating directly with central government but also in contact with the villages, aware of their needs, and in a position to encourage community participation. It is at this level that matching of health needs and resource allocation is most likely to occur.[19] Community-based non-governmental organizations active in health care may make an important contribution to the process of devolution of administrative responsibility.

The management of a system of health services is much more than the management of its facilities and support systems. It involves decisions about priorities and resource allocation that are based on the health needs of the population to be served. This epidemiologic perspective is missing from the training of many of those in positions of responsibility, and the information system on which to base such management decisions is typically inadequate. Management also involves gaining the cooperation and compliance of highly independent professionals and specialists who have their own constituencies and political support.

The medical profession is of special importance because of the profound steering effect of individual clinical decisions on the demand for expensive facilities and the consumption of resources for diagnosis and treatment. Most practicing physicians give relatively little weight to consideration of the efficacy of these procedures and almost no attention to the real cost and foregone opportunities in terms of resources used. Abel Smith (personal communication) has estimated that the consequential costs generated by the average medical specialist in Great Britain are on the order of £500,000 per year; if eliminating unnecessary procedures reduced expenditures by 10 per cent, the savings nationwide would be enormous. In developing countries, the secondary-health-system costs generated by physicians are smaller, largely because of the absence of much of the high-cost diagnosis and treatment modes, but the same problem exists as in developed countries, and the implications are more serious because of the much more limited resources available for health. To give priority to medical education and to a reward

system for physicians is to place clinical decisions about the individual patient in the context of the health needs of the population and to promote more discriminating use of scarce resources for diagnosis and treatment based on evaluation of the effectiveness and the cost of these procedures. These decisions involve difficult ethical judgments. The concepts behind these decisions have only recently been introduced into medical education and health-services administration in developed countries.[14]

Poverty

Money alone will not ensure good health. However, in the opinion of most development specialists, the overriding constraint to improving health status in the least developed countries is the extreme poverty of most of the population and the low level of the gross national product per capita (below $400). Health must compete with other pressing developmental needs for extremely limited public resources.

The problem is made worse by the rapid growth in population, which averages 2.4 per cent per year among developing countries as a group and reaches nearly 4 per cent per year in Kenya; at this rate, the population of Kenya will double in 17 years. At current average annual growth rates, half the population will be under 15 years of age; and demands for employment, housing, and all basic services will increase rapidly. Public expenditures on health will have to increase commensurately just to "hold the line" on current levels of quality and coverage of services. Since population is the critical denominator of all development activities, with such limited resources reduction of fertility will be a decisive factor in attempts to improve services such as health care. At the same time, wider coverage of the population with effective services for maternal and child health and family planning is a necessary part of any strategy to reduce population growth.

Given the extremely limited resources and the rapid growth in population, several basic questions need to be addressed. First of all, what are the prospects for increased public expenditures on health, and to what extent are improvements in health dependent on economic progress? What other sources of financial support might be mobilized? Secondly, can existing resources be used more effectively? And thirdly, within these constraints is "Health for All" through primary health care feasible?

Financing of Health Services

Analysis of health expenditures in developing countries is hampered by a lack of satisfactory financial information on programs operated by different levels of government and the private sector. The available data indicate striking differences in the levels of current total public expenditures on health for capital and operating purposes, with average figures of $2.60 per capita per year in the poorest countries (1.1 per cent of the gross national product), $19 in middle-income developing countries (1.2 per cent of the gross national product), and $469 in industrialized countries (4.4 per cent of the gross national product). The combined public and private health expenditures in the United States and several northern European countries are close to $1,000 per capita per year - more than 100 times the level in the poorest group of countries. At the other extreme, a few of the poorest countries - Bangladesh, Ethiopia, Indonesia, and Zaire - have annual public expenditures on health of only $1 per capita. Since recurrent expenditures are

concentrated in urban areas where hospitals and specialized manpower are located, it may be concluded that the resources available to operate health services for the rural population are very limited and in the poorest group of countries average substantially less than $1 per capita.

During the decade 1980-1990 the average annual growth in gross national product per capita is estimated to be 2.1 to 2.3 per cent in middle-income oil-importing countries, and 0.7 to 1.8 per cent in low-income countries. Assuming that public expenditures for health remain at the same proportion of the gross national product as in 1977, the allocation for health in low-income countries may be expected to increase by only $0.40 to $0.80, to a level of $3 to $3.40 per capita per year by 1990; the increment will be only $0.20 to $0.50 in Asia and even lower in Africa, where a reduction in per capita income is possible in the sub-Saharan countries during the decade. Predictions for the year 2000 show little further improvement, particularly in the low-income countries, with the gap between rich and poor countries continuing to widen. A substantial increase in poor countries' public resources for health by 2000 is possible only if there is a shift in resources from other sectors. This seems unlikely, unless investing in health can be justified more convincingly to ministries of finance and planning, in terms of immediacy of benefit and return on investment.

To what extent are improvements in health dependent on economic progress? Preston's study of the contribution of economic factors to declines in mortality, which uses national income and mortality data from populations in 43 countries between 1938 and 1963, indicates that income is a critical but not major determinant of mortality level.[20] In the aggregate, income growth accounted for only 16 per cent of the improvement in life expectancy in the countries studied. In the subgroup of countries with incomes below $400 per capita, there appeared to be a stronger correlation of income and mortality trends. Nevertheless, Sri Lanka and the state of Kerala in India[21] and the People's Republic of China are examples of countries that have attained a life expectancy close to the level in the industrialized world, with income levels in the range of the least developed countries. The achievements may be explained in part by the public priority given to literacy, food, and health and by special features of social and political organization. Furthermore, as McDermott illustrated in the case of chemotherapy for tuberculosis in blacks in New York City and Maoris in New Zealand, advances in medical technology can be very effective in reducing mortality promptly without any preceding improvement in living standards.[22] These examples are of great importance for the least developed countries, which have such gloomy economic prospects for the next two decades.

In view of the continuing scarcity of public resources, what opportunities exist to supplement a central government's capacity to finance health services by mobilizing support from other sources? The possibility of revenue sharing by local government for local services warrants further exploration, although the capacity of local government to generate tax revenues is limited. In two regions of Senegal 8 per cent of general rural taxes are set aside for health, and in Colombia 35 per cent of the state beer tax is earmarked for hospitals. If these taxes generate new public revenue, they could expand support for health; otherwise, the process is merely an exercise in allocation.

Social-security schemes based on contributions by employers, employees, and sometimes governments are an important financing mechanism in middle-income countries, particularly in Latin America. The services financed are predominantly curative, and since the benefits are restricted to employees, the schemes cannot be relied on to attain full coverage of low-income populations, many of whom are outside the wage economy. The equity of social-security systems has been questioned, since the public-sector contributions in effect serve to subsidize the better-off segment of the population, and employers may pass on their costs to consumers by raising prices. Private financing of health care has also been undertaken by productive sectors. One of the largest examples is the Colombia Coffee Growers' Association, which in 1978 alone contributed two fifths (41 per cent) of the total operating costs of the rural health-delivery system in that country.*

User fees and contributions in kind from the individual or the community are also important means to supplement financing from government. Many governments resist any form of user charges, for fear of excluding the poor or in the belief that users will not understand the value of the services. Paradoxically, imposition of user charges can have a positive impact on utilization of health services, by increasing the perceived value of services and therefore the demand for them over alternative "free" care. Mission clinics and hospitals have demonstrated the feasibility of recovering a considerable part of their operating costs for selected curative services when quality of care is acceptable. Institution of a pricing policy for selected curative health services has been attempted in several countries. The establishment of community pharmacies in the Philippines and of village drug cooperatives in Thailand and Senegal are examples of this approach. Traditional healers and birth attendants practice on a fee-for-service basis and enjoy a high level of community acceptance; with appropriate training, they could serve as a valuable extension of the health system financed by user fees. Village organizations and popular self-help movements such as Saemaul in Korea and Sarvodaya in Sri Lanka illustrate the value of community participation for mobilizing local labor and materials for health facilities and salary support of community health workers. However, local initiatives may lead to disillusionment if they are not supported by appropriate services within the public-health system. Multiple independent initiatives may complicate the evolution of a rational system unless they are developed within a general framework.

China, one of the few low-income countries with a broadly based health-care system, uses a variety of financing devices. In addition to central, provincial, and county-government appropriations and some user fees, health-insurance schemes are also employed. The "public-medical-expenses" scheme is similar to a social-security system covering government employees and students. The "labor-medical-insurance" scheme covers about 10 per cent of the population and is financed by 2 to 3 per cent of factory income before payment of salaries. The large rural population is covered by "cooperative medical services" financed by the participating communes through production "brigade revenue, " individual premiums equivalent on average to 1.5 per cent of the family's disposable income, and user fees.[23] All expenditures for preventive health care are borne by the state.

Much work remains to be done in analyzing the effect of prices on the demand for health services in developing countries; the success of the private sector in this area is not

necessarily a reliable guide to public-sector pricing policy. Even when a superior public service replaces a private one, the public cannot be assured of capability to collect the same level of charges, since it is less able to refuse services to those unwilling to pay, as has been shown in the case of public water supply. Nevertheless, since private spending is estimated to be three to four times greater than government expenditures on health in many developing countries,[24] it is clearly one of the most important sources of financing to explore.

Mobilization of resources for health from the widest spectrum of alternative sources should be actively pursued, ensuring that these resources are a net addition to public funding rather than a substitute for it. They have the added benefits of reducing the uncertainty associated with total dependence on public funding and of increasing the participation of the individual, community, cooperative, or local government in planning and managing the health services.

In many countries the principal alternative to government financing has been official development assistance from bilateral and multilateral agencies and extensive local contributions by foreign nongovernmental organizations According to Howard, assistance for health from all external sources totaled $3 billion in 1978 - less than one quarter of the total estimated public and private expenditures on health in the 67 poorest developing countries (excluding China).[24] The largest component, $1,008 million, came from 18 bilateral donors; they allocated approximately 10 per cent of their total concessional assistance to the health sector - a share only exceeded by agriculture, public utilities, and education.[25] In view of the economic difficulties facing industrialized countries, it seems unrealistic for developing countries to rely on any appreciable increase in external assistance for health in real terms to compensate for a shortage in public expenditures. Furthermore, care must be taken to avoid capital expenditures financed by external assistance if the recurrent cost obligations that they create are not in keeping with the priorities for use of the limited public funds available for health.

The tendency of governments to discriminate in budget allocations against programs with high recurrent costs in favor of capital-intensive projects is aggravated by the policy of many external donors not to support operating costs. In general, recurrent costs generated per dollar of capital investment are substantially higher for health than for other major public sectors, such as agriculture or transportation, and the ratios are particularly high for primary-health-care programs and rural health centers,[26,27] in which expenditures are mainly for manpower and drugs. This makes these programs very vulnerable to budget cutting by government. In addition, even when general operating expenditures have been met, neglect of maintenance expenses leads to further capital expenditures for rehabilitation or replacement of facilities and equipment - a much more costly approach to sector development. An important consideration in the success of primary health care will be the willingness of governments and external donors to place appropriate priority on the financing of recurrent costs.

EFFICIENCY AND EFFECTIVENESS OF THE USE OF RESOURCES

National capability to plan and implement strategies and programs that make the best use of scarce resources is seriously deficient in most developing countries. The coexistence of sub-populations with different health needs requires programs that are designed for

these groups and not based on national averages. The need to select from among a broad range of possible interventions the most appropriate mix of personnel, facilities, and technologies requires information on relative cost effectiveness, trade-offs between capital investment and recurrent costs, and assessment of the political and administrative feasibility of implementation - for all of these, data are seriously deficient.

Health planning is under a cloud of skepticism because the substantial efforts to date have had little effect on resource-allocation decisions for the health sector in most countries. Much of the planning has been normative, based on international estimates of the number of personnel and hospital beds needed to establish or extend coverage of services rather than on the nature of the health problems of a given population and the most cost-effective methods of solving them. Almost all planning and management have been central, with inadequate understanding of the real constraints on implementation at the operating level.

Matching programs more closely with needs will depend on strengthening planning in several areas. Some initial definition of priorities for the sector is essential. This may be achieved by a review of estimates or epidemiologic measures of the disease profile of representative population groups, clarification of explicit health-sector objectives, and assessment of the technical, political, and administrative feasibility of dealing with the most important problems. From this general framework it should be possible to define population-specific objectives for health investments and to establish targets For reductions in critical sector-development indicators such as infant mortality, malnutrition, fertility, or disease prevalence. Setting targets provides a mechanism not only to assess the value of use of scarce resources but also to monitor and evaluate program performance. Alternative approaches to achieve the targets should be reviewed, and the most cost-effective solution selected, weighing not only technical and financial considerations but also cultural acceptability and feasibility of implementation. This exercise will raise difficult questions about trade-offs: whether to pursue inexpensive short-term symptomatic therapy or more expensive long-term measures to eliminate the cause of disease; the relative merits of interventions in health and in other sectors such as water supply and sanitation, and the choice between disease-specific, vertically organized health services and the multi-purpose, horizontal primary-health-care approach. Walsh and Warren reviewed published reports of infectious and parasitic diseases endemic in tropical countries and concluded that the strategy of intervention should be selective - based on evidence of the contribution of each disease to mortality and morbidity, the efficacy and cost of currently available control measures, and the feasibility of applying these measures.[28] The extensive studies of Morrow and his co-workers in Ghana[29] illustrate the potential value of cost-benefit analysis in sorting out priorities within the health sector and in justifying to the government the investments in health vis-à-vis other sectors. Application of this technique is limited by the difficulty in quantifying benefits in health, the inadequacy of the human-capital approach to life valuation, and the lack of suitable data for analysis in most developing countries.[30,31] In the absence of cost-benefit analysis, unit costs of specific health improvements may be compared in order to identify the least-cost solution. To apply these epidemiologic and economic measurements when planning health programs requires much information and takes time. In many cases, detailed measurements cannot be made, but more vigorous review of available evidence on the health needs of different population groups and the consideration of cost

effectiveness in selecting interventions offer the best hope for stretching limited resources to achieve maximum impact on health. In addition to encouraging better policies and practices in the health sector, this should enhance the acceptability of proposals by ministries of health to ministries of planning and finance.

The development of measurement capability for both planning and managing health services has a high priority for health administrators. physicians, and others with leadership responsibility in the health system. This can be best achieved by strengthening existing institutions through mid-career training of the staff, improving management information system and undertaking operational research on health services at central and peripheral levels of the health system.

FINANCIAL FEASIBILITY OF PRIMARY HEALTH CARE

Primary health care has been accepted by the member governments of the WHO as the key to achievement of universal access to health care by 2000. Assuming that the low-income countries will have no more than $3 to $4 per capita per year in public resources to devote to health by 2000, is it possible to achieve the goals envisaged in the primary-health-care approach with this financial constraint?

Evidence from six primary-health projects undertaken in the late 1960s and 1970s in developing countries indicates that marked health improvements can be demonstrated within five years through provision of basic services with annual operating costs ranging from about $0.50 to $3.50 per capita (Table 5).[32,33] When corrected for inflation, these figures would be $1 to $7 per capita in 1981 prices. The results must be interpreted with caution since five of the projects were of a pilot nature; most involved very small populations; the cost data varied greatly. As a rule, they did not include capital investment, training, expenditures beyond the primary level of health care, or the value of expatriate and volunteer labor. The contribution of voluntary health workers is of special importance because they provide a large share of rural health services and because volunteerism may be difficult to sustain over the long term.[34] Although there should be economies in scaling-up to national programs, in fact higher marginal costs would be expected with expansion of primary health care to more widely dispersed populations. Furthermore, political and administrative problems involved in scaling-up would add costs for management, supervision, and support systems. Nevertheless, the results of the pilot projects, adjusted for inflation, are of the same order as the estimates of $1 to $3 by Joseph and Russell[35] and $5 by Patel (unpublished data) for per capita recurrent costs of primary-health-care programs.

An alternative approach to estimating the cost of primary health care is to price the individual components of a model program designed to treat the principal causes of mortality in children in low-income countries, as outlined in a recent WHO discussion paper.[36] The model for a total population of 100,00.0 would try to provide basic care for children under five years of age (about 17,000), tetanus toxoid, iron and folic acid for pregnant women (about 4000), and contraceptive advice and supplies for fertile women (about 5100 at a 30 per cent level of coverage). On the basis of estimates of the need for immunization against common infectious diseases and for treatment of diarrhea, acute respiratory infections, malaria, and intestinal parasites, and assuming that all patients in need will be treated with the least expensive, effective treatment available, it is possible

to calculate the annual cost of drugs and supplies for each condition. For example, to immunize the 4000 children under one year of age against measles, 3200 doses would be required to achieve 80 per cent coverage (recognized as sufficient to halt transmission), which at $0.17 a dose would cost $544 each year. The annual cost of all the drugs, vaccines, and supplies for the model program was $35,000, or $0.35 per capita, for the population as a whole to cover the selected target groups.

The cost of commodities is, of course, only one component. It is necessary to add the cost of salaries of health workers, training, transportation, and maintenance. If these additional costs are in the same proportion to total primary-health-care costs as drugs are in national health budgets (drugs account for 25 per cent according to a conservative estimate[6]), then the total annual recurrent costs for primary health care may be in the range of $1.40. Since annuitized capital costs for primary care are about one third of recurrent costs,[26,27] $0.45 to $0.50 may be added to cover capital investments. The combined capital and recurrent costs of the primary-health-care program would be under $2 per capita per year, well within the financial reach of low-income countries.

Table 5. Impact and Cost of Selected Primary-Health-Care Projects.*

PROJECT	PERIOD MONITORED	ESTIMATED POPULATION COVERED	INFANT MORTALITY RATE			CHILD MORTALITY RATE			PROJECT COST PER CAPITA
			BASE OF STUDY PERIOD	END OF STUDY PERIOD	PER CENT REDUCTION	BASE OF STUDY PERIOD	END OF STUDY PERIOD	PER CENT REDUCTION	
			deaths/100 live births			*death/100 children 1-4 yr*			*$*
Miraj, India	1974-77	23,000	68	23	66	**	**	**	0.50
Jamkhed, India	1971-76	80,000	97	39	60	**	**	**	1.25-1.50
Narangwal, India	1968-73	10,500	128 ***	70 ***	45	19 ***	11 ***	42	0.80-2.00

Hanover, Jamaica	1973-75	65,000	36	11	69	13-15 ||	5-6 ||	60	0.40
Deschapelles, Haiti	1968-72	9,600	55	34	38	11	6	45	1.60
Rural Guatemala	1969-72	3,000	150	55	63	28	6	79	3.50

* Sources - Faruqee R. Johnson E. Health, nutrition and family planning: a survey of experiments and special project in India. (unpublished data); World Bank Discussion Paper No. 81-14. Population and Human Resources Division); Gwatkin DR, Wilcox JR, Wray JD. Can health and nutrition interventions make a difference? (Monograph No. 13) Washington, D.C.: Overseas Development Council, 9180, and Berggren WL, Ewbank DC, Berggren GG. Reduction of morality in rural Haiti through a primary-health-care program. N Engl J Med. 1981; 304: 1324-30

** Data not available.

*** Comparison of average rates for 1970-73 in medical-care intervention and control areas. Child mortality reflects deaths in children 12 to 36 months of age per thousand children in that age group.

|| Child mortality reflects deaths in children 1 to 48 months of age per thousand children in that age group.

The fragility of the assumptions involved in multiplying the commodity costs is acknowledged. The model itself is relatively insensitive to changes in the assumptions about the commodities with the exception of the contraceptive prevalence rate. (Increasing contraceptive prevalence to half the women at risk would increase per capita costs of commodities from $0.35 to $0.43.) A more important factor is the assumption that the primary-health-care worker will provide early diagnosis and treatment. For example, if treatment of diarrhea were delayed so that 50 per cent of children rather than 10 per cent required intravenous fluids and antibiotics, the cost of commodities would be increased from $0.35 to $0.62 per capita. The model also assumes encouragement of breast-feeding and nutrition education of mothers and children at nominal cost, but if food supplements are added, the cost of the package of commodities would be substantially increased. Using data from Project Poshak in India[37] on the cost of the basic food supplements, adjusted for inflation and an assumed 30 per cent prevalence of malnutrition, as reported in several national nutrition surveys, the added cost would be $0.71 per capita - twice the cost of supplies for the basic health and nutrition interventions. Provision of rural water supply, which might be proposed in addition to or as an alternative to primary health services, is estimated to cost $5 per capita, of which approximately half would be annuitized capital cost.[38] (This estimate is based on a reported capital cost of $26 per capita in 1977[38] annuitized at a 10 per cent discount rate and including complementary operation, maintenance, and support costs.)

The value of the modeling exercise is limited by the pyramid of assumptions on which the calculations are based. More important than the results, however, is the process involved in developing the model, which illustrates the trade-offs that countries must consider in determining the balance of services to be provided to their population. The process of choosing the most cost-effective approaches to meeting health needs is the essence of the planning and decision-making process outlined above.

CONCLUSIONS

Developing countries face the challenge of coping with a heavy burden of illness that differs markedly in subgroups of the population at different stages of development. The greatest improvement in life expectancy from health investments can be expected in the rural and pert-urban poor through a program that provides maternal and child health services, including control of the major infectious and parasitic diseases of children under five. Effective technology for such a program is now available and affordable even within the financial constraints of the least developed countries. Two major problems remain: the first is the political will to allocate the necessary resources for the program, and the second is the management capability to organize and operate a system of services for the rural and pert-urban populations that use multi-purpose community-health workers.

No satisfactory strategy has been developed to meet the health needs of older children and adults within the financial means of most developing countries. There are relatively few simple, effective interventions to control the metabolic, vascular, degenerative, and malignant diseases of the adult population, and there is little understanding of the behavioral disorders. Without new technologies for control and prevention, it is unlikely that the poorer developing countries will be able to provide more than symptomatic care for most patients with these health problems. Furthermore, adoption of the expensive technologies now used for the diagnosis and treatment of these diseases in the industrialized world will divert the limited resources available for programs for the rural and pert-urban poor to sophisticated, hospital-based, urban services, which will have, at best, a marginal impact on health.

The search for health technology appropriate to the financial and organizational circumstances of developing countries must be seen as a high priority for the research and development community of the entire world. Existing technology must be critically evaluated, and new, simpler techniques developed for the control and prevention of common chronic diseases. Greater attention should be given to research and development on the "tropical" diseases, which are a major component of the disease burden of developing countries but have been largely neglected by the world's scientific community. Pharmaceuticals are of special importance since the timely supply of essential drugs is critical to the quality of health care and the credibility of community health workers. The dangers of excessive use or inappropriate choice of drugs necessitate the introduction of policies on procurement, prescription, pricing, and quality control to avoid health hazards and excessive costs.

Financial constraints will be an overriding consideration in the development of the health sector for the foreseeable future, particularly in the least developed countries. The poorest countries that now have public expenditures on health averaging only $2.60 per capita

per year also have the least favorable economic prospects for the next decade. Greater efforts are required to mobilize resources for health from other sources, particularly the private sector, and to ensure that the limited resources available from all sources are used in the most cost-effective manner. Few developing countries have the institutional capability to select health interventions on the basis of expected health impact, least cost, and feasibility of implementation, and to integrate independent facilities, practitioners, and disease-specific programs into a more coherent, economical, multipurpose system. A high priority should be given to strengthening the capability of administrators, physicians, and other personnel in positions of leadership in the health system at central and local levels in order to develop a population perspective in the analysis of health problems, a cost-effectiveness attitude toward the use of resources, and management skills appropriate for a human-services organization. More efficient management of health services is only one aspect of the problem. It is equally important to mobilize communities and individuals to take a more active role in promoting health and in financing health services, rather than to rely passively on a government system.

Scarcity of money for health is a critical limitation on progress toward the goal of "Health for All by the Year 2000." More money alone, however, will not produce the desired outcome unless there is a political commitment to programs for those in greatest need, as well as the managerial capability to implement them. This is first and foremost a challenge for developing countries, but it is also a consideration in the investment policies of donor agencies. Progress toward the goal of "Health for All" can be accelerated if more external assistance can be provided for the areas of greatest need and if the unique scientific and technologic resources of the industrialized world can be made available to developing countries, to strengthen their institutions and to collaborate in the development of appropriate technology to meet their needs.

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Handout 5B: Water supply and health in developing countries: Selective primary health care revisited

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Primary health care (PHC) and selective primary health care (SPHC)

In the health delivery systems of most developing countries, the bulk of available resources are devoted to curative services delivered from urban hospitals (Stern, 1983). With the exception of a few vertical programs, such as smallpox and yaws programs, health services have remained largely curative and largely unavailable to poor urban and especially rural people. [2] There have, however, been some dramatic exceptions to this general pattern. Of particular importance is the health care delivery system developed in the world's most populous country, The People's Republic of China, [3] but equally striking successes have been achieved in Sri Lanka, India, Vietnam, and Cuba. [2,4,5,6]

In the light of the failure of most countries to deliver health services to the majority of their people and the success of other countries with similar resource bases to reach this goal, the WHO, UNICEF, and other international agencies embarked on an ambitious effort to encourage more countries to adopt the principles which had proved so successful in the above-mentioned countries.

At the Alma Ata Conference in 1978, the characteristics of the successful systems were analyzed and the concept of PHC defined and endorsed by all participating countries. Of particular importance in this definition is the explicit recognition given to the multiple causes of poverty and the manifestation of these causes in ill health, with the strategy therefore being defined as a multifactorial approach rather than simply a set of medical activities. In particular, PHC was to include:

. . . education concerning prevailing health problems and the methods for preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning, immunization against the major infectious diseases, prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs. [7]

Shortly after Alma Ata, two biomedical scientists, Walsh and Warren, [8] published a critique of this PHC concept in the New England Journal of Medicine. This critique and the alternative "selective primary health care" (SPHC) concept advocated by Walsh and Warren have received widespread and generally favorable attention in the scientific and development communities.

The reasoning behind the concept of selective primary health care is simple. While the adherents to the idea profess sympathy to the concept of comprehensive PHC as expressed in the Alma Ata Declaration, they are acutely aware of limitations on the resources available to developing countries for implementing primary health care

programs and argue that insufficient resources are available for implementation of all components of the original PHC program. What is necessary, then, is to examine each possible item in the overall program individually, to determine what the costs of implementing that item are, and what the effectiveness of the program is in reaching any particular objective, such as reducing infant mortality The items are then ranked in terms of cost-effectiveness, and the "selective primary health care" program is designed to include the most cost-effective items within the overall budgetary constraints pertaining in any particular circumstances.

The approach is thus presented as simply a minor modification of the original concept expressed in the Alma Ata Declaration, a modification which adheres to the principles of Alma Ata, but makes the concept of primary health care operational and implementable.

The SPHC package emerging from the cost-effectiveness calculations is almost exclusively medical, including measles and diptheria-pertussis-tetanus vaccinations, treatment for febrile malaria, oral rehydration for diarrhea in children, and tetanus toxoid in mothers. Biomedical research for the development of vaccines and therapies for major tropical diseases, too, are considered "cost-effective" More systemic non-medical activities, such as community water supply and sanitation and nutrition supplementation, are rejected as being "non cost-effective"

The rationale of the SPHC approach has been widely accepted by both the scientific community (a computer search turned up dozens of references to the original article, with virtually all the articles accepting the premises of the SPHC approach in *toto*) and by policymakers in many international agencies, with the recent USAID health sector policy [9] an outstanding example of the application of these principles.

The purpose of this payer is to examine the details of the cost-effectiveness calculations with respect to one of the components of PHC (viz., community water supply), the choice of the measures of effectiveness chosen, and the methodology followed in comparing activities which fulfill different objectives. The rationale behind SPHC is also examined in terms of the light which this rationale can shed on the experience of both successful and unsuccessful national and pilot projects. The article concludes with a consideration of the programmatic and political consequences of SPHC vis-a-vis PHC.

The details of the water supply and sanitation cost-effectiveness calculations

As indicated earlier, a computer search was carried out to identify articles in the scientific literature which referenced the original Walsh and Warren article. Many of these references referred to the original article only to reinforce a contention that a particular field of inquiry was important, but some of the articles present a criticism of the details of the cost-effectiveness calculations pertaining to a particular sector, the objective usually being to argue that the ranking of the specialty of the particular author should have been higher than indicated by Walsh and Warren.

In this spirit, a critique of the numbers used by Walsh and Warren in assessing the cost effectiveness of investments in water supply and sanitation is presented in this section.

The data used by Walsh and Warren for the capital costs of water supply and sanitation programs are based on recent and widely verified World Bank data, and, aside from

noting that in certain circumstances (such as tubewells in rural Bangladesh [10] and latrines in Zimbabwe [11]) the per capita costs may be an order of magnitude less than the costs used by Walsh and Warren, there is no basis for disagreement with the cost data used.

What is apparently not appreciated by Walsh and Warren, however, is that, whether or not there are additional investments in water supplies, people in many Third World settings (particularly in urban areas) pay substantial amounts of money for poor-quality water supplies. A well-documented, but by no means unique, case is that of poor people in Lima, Peru, [12] the results of which are summarized on Table 1 below.

Table 1: THE QUANTITIES OF WATER USED AND EXPENDITURES ON WATER IN LIMA, PERU

Quality of Service	Quantities used (l/cap/day)	Monthly Household Expenditures on Water (soles)
Poor (vendors)	23	105
Medium (standpipe)	78	22
Good (house connection)	152	35

Table 1 shows that improvements in the quality of water supply service in urban areas may be associated not with an increase, but a reduction in the monetary costs of the supply, a finding by no means unique to Lima. One of the most experienced water supply engineers in the world has found this phenomenon to be virtually universal in developing countries and has concluded that "if daily expenditures made to a water carrier were invested instead in a proper piped supply, far more economical and better water service could be provided". [13]

In terms of a cost-effectiveness analysis of the sort used by Walsh and Warren, then, the economic cost of such water supply improvements may be much smaller than the overall cost of the project, since much or often all of the costs can be covered by "simply" redirecting expenditures which are already being made by the population for an inferior water supply service. Since the Third World is rapidly becoming as much an urban as a rural world, since similar willingness-to-pay is often demonstrated by rural inhabitants, [14] and since those urban dwellers paying high costs for poor water supplies are those urban dwellers with the highest incidences of disease, this phenomenon is of major importance in terms of improving health through the investment of relatively few outside resources. The rub, of course, is in the word "simple", for these poor urban residents are frequently not recognized as either legitimate or deserving by their governments, and the organizational and managerial implications of these changes are by no means trivial. A key issue, then, is political will and program management, themes to which attention is directed later in this paper.

Turning to the denominator in the cost-effectiveness factor, an assessment of the likely impact of a water supply and sanitation program on health is far more problematic than

the assessment of the effects of other PHC programs which operate more directly on the causes of disease. Thus, while it is a relatively straightforward (although not trivial) task to calculate the effects of a tetanus or measles vaccine on death rates, a similar assessment of the effects of a water supply and sanitation program is fraught with problems, for the intervening steps linking the program inputs to health outputs are far more numerous and the necessary behavioral changes far more complex. In particular, the assumption that the water supply produces the quantity and quality of water for which it was designed is frequently incorrect, as is the assumption that the water supply is being used appropriately by the classes or age groups most affected by water-related diseases. [15]

In light of these problems, it is appropriate to proceed with caution in attempting to assign a "typical value" in the effect of water supply and sanitation programs on health. [16] In their analysis, Walsh and Warren drew on only a small sample of the large number of available studies and reached universal conclusions which are not supported by a more comprehensive assessment. For instance, Walsh and Warren concluded that while water piped into the home might result in substantial reductions in diarrhea! diseases, water supplied through public standpipes would affect only a very small reduction (about 5%) in the incidence of diarrhea! diseases. While this was certainly the conclusion to be drawn from the couple of studies examined by Walsh and Warren, fundamental doubts have been raised about the results of one of the studies, [17] and a more complete analysis of methodologically sound, available studies would have indicated that where improved quantities of water of improved quality became available through standpipes, the expected reductions in diarrheal diseases would be an order of magnitude greater than the 5% assumed by Walsh and Warren. This is indicated on Table 2, which is abstracted from a recent comprehensive review of the health effects of water supply and sanitation programs.

Table 2 : THE EFFECT OF WATER SUPPLY AND PROGRAMS IN 24 NONINTERVENTION STUDIES [18]

Parameter Affected	Number of Studies	Reduction in % Diarrheal Diseases (median)
Water quality	6	30%
Water availability (mostly through standpipes)	11	34%
Quality and availability	4	40%
Excreta disposal	8	40%

There are reasons, then, to believe that the figures used by Walsh and Warren in both the denominator and numerator of the cost-effectiveness calculations for water supply and sanitation programs are seriously in error. Furthermore, since the approach taken by Walsh and Warren is one in which the cost-effectiveness of different components of PHC

are compared, it is pertinent to note that there are also serious problems with the costs and effectivenesses used by Walsh and Warren for the more traditional medical components, which their analysis suggested were most appropriate in a "selective" approach. Specifically, in the examination of several small, nongovernmental health projects [19] which served as a basic source of data for the Walsh and Warren analysis, costs generally did not include capital investment, training, expenditures beyond the primary level of health care, or the value of expatriate and volunteer labor." [20] In scaling these projects to a national level, the costs would be substantially greater and the effectiveness of the programs substantially less due to "political and administrative problems." [20] Indeed, the generalizability of these findings has been questioned by many (including the Director General of the WHO [21]), with the comments on the Indian project being typical: "It was the dedication of the team leaders, their total involvement in the community programs, and their special organizational abilities which made the program successful". [22]

However, as will be detailed in the following sections, the "selective primary health care" analysis of Walsh and Warren is, in our opinion, flawed by fundamental conceptual problems which are much more serious than the problems of detail outlined above. For this reason it is not appropriate to attempt to present revised cost-effectiveness figures for water supply and sanitation programs and other components, or to suggest, on the basis of such revised estimates, an alternative hierarchy of programs for "selective primary health care"

The criteria used for assessing the effectiveness of health programs: what are the objectives and who decides on these?

Health is a multifaceted concept. At the most elementary level, it is possible to distinguish between severity of effect (infection, disease, disability, and death) and age group affected (infant, child, or adult). A fundamental difficulty in comparing different health programs is that, typically, different programs affect different facets of health. One program, for instance, may affect infant mortality only, while another might affect infection, disease, disability, and mortality in all age groups.

Decision theory offers only some simple concepts in suggesting how to analyze trade-offs between programs which affect different facets of health in this way in particular, with reference to Figure 1, decision theory tells us only that, if outcome 1 and outcome 2 are both desirable, and if the costs of the programs represented on the diagram are equal, then program B is always preferable to program A, and program C is always preferable to program A (a concept known as "Pareto optimality") Decision theory tells us explicitly that, if we are unable to reduce output one and output two to a common measure (such as dollars), then the only way of resolving whether program B is preferable to program C is to submit the choice to decision makers and have them tell us which program is preferable.

It is immediately apparent, then, that two questions are of fundamental importance in attempting to compare different health programs:

1. What are the health outcomes which will be considered?

2. Who will be the judges of the trade-offs between these outcomes?

A first concern with the procedure followed by Walsh and Warren is their choice of criteria and the consistency (or lack thereof) in applying these to the components of PHC which they analyze. For the most part, Walsh and Warren consider reductions in infant mortality to be the unique criterion of interest, thus comparing, for instance, the cost per infant death averted through water supply and sanitation programs, and expanded immunization and oral rehydration therapy programs. This lands them in a bind, of course, for such a procedure means that all programs which do not result primarily in reductions in infant mortality (one of these considered by Walsh and Warren is an onchocerciasis control program) will automatically be rejected. The procedure followed by Walsh and Warren, then, is to write down that onchocerciasis control programs "prevent few infant deaths," leaving the reader to assume, reasonably, that onchocerciasis control programs may be justified on grounds other than reductions in infant deaths.

So far so good. With respect to the example which is followed through the present analysis - water supply and sanitation - Walsh and Warren follow a quite different procedure. Since it is never argued that the only effect of a water supply and sanitation program is a reduction in infant mortality, the only consistent procedure would be to repeat the procedure followed in the onchocerciasis control program and make no comparison between a water supply and sanitation program with a program the unique effect of which is to reduce infant mortality. This Walsh and Warren do not do. Instead, they compare water supply and sanitation programs with programs aimed specifically at reducing infant mortality (such as oral rehydration therapy programs) and conclude, not surprisingly, that the programs which affect infant mortality only are more effective in this than a program which has multiple effects on all manifestations of disease in all age groups. If we imagine that "outcome 1" on Figure 1 represents reductions in infant mortality and outcome 2 some other desirable outcome (such as reduction in adult morbidity), then Walsh and Warren's procedure is equivalent to claiming that program B is superior to program C simply because B gives us more of outcome 1 than C (ignoring the fact that C gives us more of desirable outcome 2 than B). This procedure is obviously unsatisfactory.

As indicated earlier, trade-offs between different outcomes cannot be considered in isolation from the decision as to who will make such tradeoffs. While Walsh and Warren could almost certainly defend their choice of reduction in infant mortality as an important criterion, other scientists would claim that other criteria (such as morbidity in the adult population [23]) are important, too. Where different criteria are used, of course, the cost-effectiveness of different programs will be quite different. For example, in the case of cholera, whereas rehydration therapy has been shown to be less costly and more effective in saving lives than immunization, if morbidity reduction becomes the objective, the results of a cost-effectiveness analysis would be reversed. [23]

In the spirit of John Grant, however, who argued that primary health care and other development programs should follow "the principle of inherent need and interest, in which "projects in a village should grow out of its own needs and interests, and not be superimposed by some idealists," [24] we would argue that the trade-offs between the outputs of PHC programs be done in light of the expressed needs of the communities involved. From an examination of the actual health and nutrition practices of families in the developing world, it is clear that their de facto priorities do not agree with the

assumption of Walsh and Warren that reductions in infant mortality are of unique concern. In particular, throughout the developing world the economic welfare of families is highly dependent upon the economic production of adults, [23] giving rise, for example, to discrimination in feeding among household members to protect the actual or potential breadwinner in subsistence settings. [25]

In assessing actual practices, however, attention has to be given to the fact that families, like villages, are not division-free entities, and it is necessary to go one step further and ask whose interests in the family should be given greater weight.

From a variety of perspectives it seems clear that the group whose needs are most important, in terms of the health of the community in general and young children in particular, are mothers. First, virtually all components of PHC programs are based on the assumption that mothers will be the most important front-line providers of health care to children. [26] Second, of all the correlates of infant health, none is as strong or as consistent as mother's education, [27] implying that there are few better investments in health than those which meet the needs of women, particularly those which alleviate the constraints limiting the education of girls and women. Later in this paper it is argued that a particularly important constraint faced by women in undertaking, to use James Grant's term, [28] "discretionary activities," such as education and child care, is the enormous demands made on women for performing time consuming, repetitive tasks. Investments which relieve mothers of part of this burden will have an effect on child health which is as certain as it is impossible to quantify. [16] Indeed, many experienced investigators of the determinants of health in the Third World would concur with Latham, [29] who has argued that "attentions to women's rights and the emancipation of women may ultimately have more impact on nutrition and infection in developing countries than any of the (conventional nutrition and health) interventions"

Concerned, then, with the exhortation of the Director General of the WHO that mothers become the subject and not the object of health programs, the following sections of this paper assess some principal constraints aired by women in implementing PHC programs.

Women as the front-line health care workers: some constraints

A concept central to all PHC programs is that no lasting advances in child health can be made unless the mother is involved in these programs. Thus, most of the core elements of PHC programs - such as breastfeeding, supplementary feeding, oral rehydration therapy, and household hygiene - involve the mother as the front-line health worker. Indeed, the objective of PHC programs may be described as the improvement of "mothering, the poorly-defined but crucial interactions between mother and child that form the principle determinants of health, growth and development." [30]

To carry out the complex and demanding task being set her by primary health care programs, the mother faces four principal constraints, namely, technology, knowledge, resources, and time. One way of visualizing PHC programs is that such programs are aimed at relieving the mother of one or more of these constraints so that she may become a more effective mother.

In their analysis of "selective primary health care," Walsh and Warren focus their attention almost exclusively on the first of these four constraints, technology, an approach common to the policy formulations of some development agencies, too. While there is no doubt that technological advances, such as improved expanded vaccination programs and oral rehydration therapy, open new vistas in terms of the potential for child health in developing countries, the provision of improved technology alone is insufficient, for usually the effective implementation of such technology requires simultaneous inputs of knowledge, resources, and time on the part of the mother. Let us consider a few examples.

Breastfeeding. Primary health care programs provide both information to the mother on the fundamental importance of breastfeeding for the health of her infant and technology in the form of programs designed to monitor the growth of her child. While such programs are essential, equally essential is the availability of time for the women to breastfeed their babies. Studies throughout the world have shown that where women work outside of the home, they do not have the time available to breastfeed their babies, with the result that the inputs of knowledge and technology provided by the PHC program cannot be translated into improved child-rearing practices. (A typical finding is that of a study in Malaysia, where women recently employed breastfed their children 33% less time than women in a control group who had not recently been employed. [31])

Oral rehydration therapy. ORT technology undoubtedly opens entirely new possibilities for the reduction of mortality in young children in developing countries. As in all other cases, however, the provision of the technology alone will have little impact unless the constraints faced by the mother in using the technology are addressed simultaneously. The constraints are many: in many areas of the world, the cost of rehydration packages is too great for poor families; [32] in almost all situations, traditional understanding of food and liquid withdrawal during diarrhea have to be changed, [33] and thus the ORT technology has to be accompanied by educational and informational inputs. Finally, since "continually giving a sick infant large volumes of liquid by spoon or cup is time-consuming tiring, and inconvenient for an overburdened mother with other children plus household and farm work to do, ORT may require the commitment of more time and energy than she can easily provide". [34]

Clinic-based supplementary feeding and other programs. Perhaps the simplest of all programs, in principle, is one in which the mother comes to a clinic or distribution center to collect food for her child, to weigh her child, or to have her child immunized. Yet many studies have shown that attendance at a clinic drops off dramatically as the distance to a clinic increases [35] and that women in the labor force are frequently unable to avail themselves of such services because of the constraints on their time. [36]

Food preparation and storage. Recent longitudinal studies in Bangladesh [37] and The Gambia [38] have documented the vital role of food contamination on the transmission of diarrheal diseases, an effect which becomes particularly marked when great demands are made on the time of the mother. In The Gambia, for instance, at the peak diarrheal transmission season, "feeding of small children is particularly haphazard . . . infants may be left in the compound in the care of young nursemaids with a supply of porridge or gruel for the next 8 or 9 hours, and food for the evening meal is sometimes stored over night . . ." [38]

In sum, the great demands placed on the time of Third World mothers constitute a serious barrier to the implementation of PHC, with these constraints often being particularly acute at those times of the year when children have most need of additional health care [39] and in low-income families where the incidence of illness is greatest. [40]

The overall effect of restrictions in the availability of time is evident in recent data from the Philippines, Although the children of working mothers received 5% more food than the children of a comparable group of mothers who were not working, the children of the working mothers weighed, on the average, 7% less than the children of the mothers who did not work, an effect attributed to the lack of time available to working mothers to translate increased resources and improved knowledge into improved health of their children. [41]

Thus, although improved water supply and sanitation conditions affect PHC in several ways - by reducing the disease load (see Table 2) and thus the need for child care, by increasing available income through reducing payments for water (see Table 1), and by releasing the calories used in carrying water (12% of a woman's caloric intake in East Africa) [42] - most important of all effects may be increasing the time available to mothers for carrying out child care and other "discretionary activities

Time and mothers' needs in developing countries

A recent workshop in "Women in Poverty" examined the phenomenon of poverty among women in the Third World and analyzed how women might become actors in and beneficiaries of the development process.

Three conclusions of this workshop are of particular importance for PHC. First, time is the most important resource which poor women have available to them. [31] Second, studies in a variety of developing countries (Bangladesh, Bolivia, Indonesia, and the Philippines) have found that the rural mother engages in ten to eleven hours per day of active home and market production, [40] whereas women in industrialized countries typically work at and outside the home only six hours per day. [31] And third, poverty is concentrated in female-headed households, and the number of these households is large (typically between 15% and 35%) and increasing. [31] Thus, the workshop concluded that, for women in developing countries, "saving time is development, for time saved from humdrum tasks is time to invest in human capital," [31] and that priority should be given to "technologies that reduce the time women and children spend fetching wood and water and preparing food." [31]

Time required for water collection

The impact of the installation of a convenient village water supply system on the time spent by women and children in carrying water has been documented throughout the world. [16] To give just a few of many examples: in the lowlands of Lesotho, 30% of families spend over 160 minutes per day collecting water; [43] as a result of improved water supplies in the Zaina scheme in Kenya, about 100 minutes per household per day are saved from the water-collecting activity; [44] in East Africa, rural families spend up to 264 minutes per day carrying water; [42] in East Nigeria, families spend up to 300 minutes per day collecting water. [43] Studies in Asia (for example, the Philippines [41] and Thailand [14]),

too, have documented the substantial amount of time spent in collecting water in many areas.

Felt needs of low-income women

It would thus appear that a major constraint on women's discretionary activities (including child care) in many developing countries is the enormous demand made on their time for the performance of repetitive, time-consuming tasks. It has further been documented that in many rural communities the fetching and carrying of water is one of the most important of these tedious tasks. What do the low-income women of the Third World have to say about this when they are asked directly, when they are treated, as Halfdan Mahler would have, as subjects and not just as objects in the development process?

In looking for answers to this question, it bears repeating that societies in general, and societies in developing countries in particular, are typically sharply divided along class and sex lines. Earlier in this paper it has been argued that particular attention should be paid to the concerns of poor women, yet determining the concerns of this largely disenfranchised group is not simple, for two main reasons. first, the sexual divisor of labor is universal, with the time-consuming tasks performed by women seldom, if ever, being performed by men; and, second, "the decision-makers or leaders in the agencies and in the target communities are usually men and they communicate with other men and not with the women."[45] Thus, as has been documented for Kenya,[45] the reduction in time-consuming tasks like fetching and carrying water is a high priority need for rural women, but is typically given low priority when the "village leaders" (men) are asked for their opinion.

Where surveys of community needs have been aware and taken account of such factors, throughout the developing world water supply has ranked high on the list of expressed priorities.[46] In a recent review of the findings of surveys of low-income women in developing countries, water supply improvements were found to "rank right alongside the most basic human need (adequate food) in many (such) surveys."[40]

Cost effectiveness revisited

Returning to the decision model outlined earlier it is thus apparent that when, first, outcomes of programs are not arbitrarily restricted solely to reductions in infant mortality and, second, the trade-offs between outcomes are made by poor Third World women and not scientists, water supply programs routinely constitute an integral part of PHC programs in those (large) areas of the developing world in which access to adequate water supplies is restricted.

It is thus not surprising that, in all countries in which PHC has been successful, improvements in water supply and sanitation conditions have been an integral part of strategies for both improving health and improving the status of women.[47,48]

Summary and conclusions

Six years after Alma Ata, what is the prospect for the PHC philosophy as outlined in the Alma Ata Declaration? On the one hand, the concept is clearly a viable one which has

been implemented successfully in a number of large, low-income developing countries and with considerable, if only temporary, success in a number of pilot projects in developing countries which have made little progress at the national level. [19] The overwhelming reality, however, is that in those countries which had made little progress before Alma Ata, little progress in implementing PHC programs has been made since. [27] Simplifying a complex debate, there have been two main contending theses explaining this failure. On the one hand, many have seen the failure of PHC programs in most developing countries as a predictable consequence of a "lack of political will," while others have focused on technical factors, such as the scarcity of resources for implementing PHC programs and the necessity for making cost-effectiveness choices on components to be included in an overall PHC program.

For those who favor the technical interpretation of this experience, the "selective primary health care" approach of Walsh and Warren is an insightful and pragmatic tool to be used in making choices in the light of the "resource scarcity, about which interventions are "cost effective" This analysis, as has been shown in this paper, is fundamentally flawed. If the problem is a problem of "resource scarcity" how is it that several low-income countries have implemented strikingly successful PHC programs, while many other countries with higher GNPs per capita have failed completely? If the problem is the comprehensive nature of the Alma Ata formulation of PHC, then how is it that all of the successful national programs have taken such a comprehensive approach? And if water supply and sanitation programs are not "cost-effective, why is it that all of the countries in which PHC has been effective have made improvements in water supply and sanitation a cornerstone to their PHC approach? In summary, although the approach taken by Walsh and Warren and used as a basis for sector strategies by some international development agencies has a certain appeal to fundamental notions of rational planning, the approach fails totally to account for the experience which has been accumulated with PHC programs throughout the world. This being the case, then, there are several critical questions. Is there an alternative interpretation which explains the experience with PHC programs more satisfactorily? If so, what are the implications of this alternative interpretation for policy? And, finally, why has the obviously flawed "selective PHC" approach proved to be so compelling and attractive to some development agencies?

Even the technically focused analyses of the SPHC sort usually mention in passing the "importance of political will and management" in the implementation of PHC programs. An alternative explanation for the success of some national PHC programs and the failure of others considers this factor of political will to be fundamental rather than incidental. The importance of this commitment is evident from both longitudinal and cross-sectional observations. Thus, history shows that prior to World War II cogent blueprints for appropriate health services were drawn up for both China and India (in the form of the Bhore Commission Recommendations of 1943) To John Grant, who played a major role in this process in both countries and who recognized that "the use of medical knowledge . . . depends chiefly upon social organization," [24] subsequent developments could have been no surprise. Where the government made a fundamental commitment to meeting the health (and other) needs of all people, as in China, enormous progress was made in developing an appropriate health delivery system. Where no such commitment was made, as in India, health services changed little over the intervening forty years. [49] Similarly, a contemporary cross-sectional comparison of countries which have made marked progress

in the development of health services for all, with those countries in which adequate services have been developed for only a small minority, shows that progress has been rapid only where "health and health care became a political goal and eventually came under political control as a part of overall development."[2]

To the proponents of this alternative interpretation, the experience of the successful nongovernmental PHC health projects which are the object of so much attention in the cost-effectiveness analyses, too, is consistent with this theory on the centrality of political commitment. For what distinguishes these successful small projects from the unsuccessful national projects in the same countries is not the resources available nor the choice of technology, but that, through dedication and management, these programs have managed to overcome the problem of the lack of political will that characterized the national programs in these countries. [21,22,27]

Thus, the concerns of the technical analysts with "resource constraints" and the use of "non cost-effective technologies" appear to be either false problems or second-order problems. The problem of "resource scarcity" is a problem wrongly named, for it is clear that this problem arises not because there are insufficient resources for the health sector but because the vast majority of these resources, both public and private, are devoted to an existing urban, hospital-based, capital-intensive health care system serviced by and meeting the needs of an elite minority.[1] The problem of appropriate technology is a real one, and there is no doubt that, where political commitment exists, PHC programs will become more effective through the use of ORT, expanded immunization programs, improved low-cost sanitation technologies, and other technological improvements. This does not imply, however that an enormous amount cannot be done with existing technologies. The successful experiences in China, Sri Lanka, Cuba, Vietnam, and India all demonstrate the progress that can be made without the technological advances which some international development agencies suggest to be the major impediment to improving health in developing countries. Indeed, what the experience of the successful national PHC programs shows is that the issue of appropriate technology is intimately related to the issue of political commitment, as is evident in the development and widespread use of innovative "appropriate" solutions to the problem of sanitation technology in both China[50] and Vietnam[51] and the imaginative incorporation of traditional medicine into a modern health care delivery system in China.[27]

Given these manifest shortcomings of the Walsh and Warren type of approach, why has it proved to be so attractive to certain development agencies and many developing country governments?

First, the only reasonable conclusion from the evidence is that credit for the success, or blame for the failure, of national PHC programs lies squarely with the government of the country concerned. Where PHC programs have failed, this is because the commitment of the government to "health for all" its people is little more than empty rhetoric

The implication for development agencies with a genuine concern for the health of all people has been stated by one of the pioneers of the PHC movement: "Where support is available, let it be selectively to those countries which already have, or are taking steps to develop, a form of decision-making and implementation which is likely to be effective."[2] Since the support of some development agencies for certain countries has more to do

with political imperatives than a true concern for the health of the people of that country, such agencies use analyses, such as that presented by Walsh and Warren, to deflect responsibility for death and illness from its true source, namely, the home governments and their international supporters, and to assign responsibility for such suffering to "neutral" causes, such as "resource shortages" and "the limitations of technology." In short, "selective primary health care" is not, as the authors would suggest, a practical modification of the PHC concept, but rather a negation of much that was positive in the PHC approach formulated at Alma Ata.

Figure 1: THE CHOICE OF PROGRAMS WITH DIFFERENT OUTPUTS
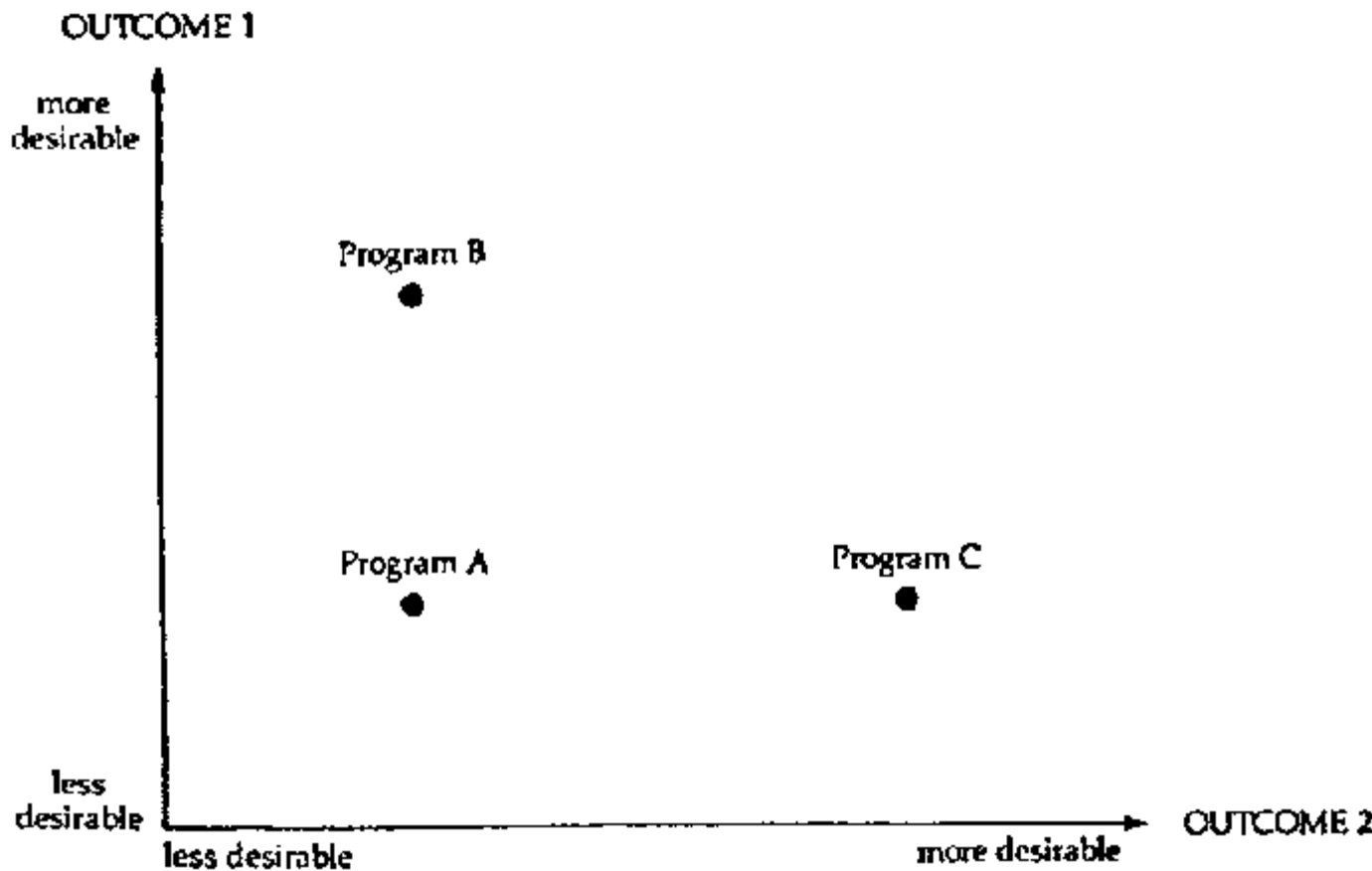
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Handout 5C: Selective primary health care

An Interim Strategy for Disease Control in Developing Countries

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Abstract. Priorities among the infectious diseases affecting the three billion people in the less developed world have been based on prevalence, morbidity, mortality and feasibility of control. With these priorities in mind a program of selective primary health care is compared with other approaches and suggested as the most cost-effective form of medical intervention in the least developed countries. A flexible program delivered by either fixed or mobile units might include measles and diphtheria-pertussis-tetanus vaccination, treatment for febrile malaria and oral rehydration for diarrhea in children, and tetanus toxoid and encouragement of breast feeding in mothers. Other interventions might be added on the basis of regional needs and new developments. For major diseases for which control measures are inadequate, research is an inexpensive approach on the basis of cost per infected person per year. (N Engl J Med 301:967-974, 1979)

THE three billion people of the less developed world suffer from a plethora of infectious diseases. Because these infections tend to flourish at the poverty level, they are important indicators of a vast state of collective ill health. The concomitant disability has an adverse effect on agricultural and industrial development, and the infant and child mortality inhibits attempts to control population growth.

What can be done to help alleviate a nearly unbroken cycle of exposure, disability and death? The best solution, of course, is comprehensive primary health care, defined at the World Health Organization conference held at Alma Ata in 1978 as

the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. Primary health care includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition, an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs.[1]

The goal set at Alma Ata is above reproach, yet its very scope makes it unattainable because of the cost and numbers of trained personnel required. Indeed, the World Bank has estimated that it would cost billions of dollars to provide minimal, basic (not comprehensive) health services by the year 2000 to all the poor in developing countries. The bank's president, Robert McNamara, offered this somber prognosis in his annual report in 1978:

Even if the projected - and optimistic - growth rates in the developing world are achieved, some 600 million individuals at the end of the century will remain trapped in absolute poverty. Absolute poverty is a condition of life so characterized by malnutrition, illiteracy, disease, high infant mortality and low life expectancy as to be beneath any reasonable definition of human decency.[2]

How then, in an age of diminishing resources, can the health and well-being of those "trapped at the bottom of the scale" be improved before the year 2000? A valid approach to this overwhelming problem can be based on the realization that the state of collective ill health in many of the less developed countries is not a single problem. Traditional indicators, such as infant mortality or life expectancy, do not permit a grasp of the issues involved, since they are actually composites of many different health problems and disorders. Each of the many diseases endemic to the less developed countries (Table 1) has its own unique cause and its own complex societal and scientific facets; there may be several points in the process for which interventions could be considered. [3-5]

Thus, a rationally conceived, best-data-based, selective attack on the most severe public-health problems facing a region might maximize improvement of health and medical care in less developed countries. In the discussion that follows, we try to show the rationale and need for instituting selective primary health care directed at preventing or treating the few diseases that are responsible for the greatest mortality and morbidity in less developed areas and for which interventions of proved efficacy exist.

ESTABLISHING PRIORITIES FOR HEALTH CARE

Faced with the vast number of health problems of mankind, one immediately becomes aware that all of them cannot be attacked simultaneously. In many regions priorities for instituting control measures must be assigned, and measures that use the limited human and financial resources available most effectively and efficiently must be chosen. Health planning for the developing world thus requires two essential steps: selection of diseases for control and evaluation of different levels of medical intervention from the most comprehensive to the most selective.

Selecting Diseases for Control

In selecting the health problems that should receive the highest priorities for prevention and treatment, four factors should be assessed for each disease: prevalence, morbidity, mortality and feasibility of control (including efficacy and cost).

Table 2 incorporates these factors into an analysis of three representative illnesses of the less developed world. The newly discovered Lassa fever was associated with a 30 to 66 per cent mortality rate in the few limited outbreaks recorded in Nigeria, Liberia and Sierra Leone. Those who survived recovered fully after an illness lasting seven to 21 days. Although this fatality rate seems to suggest giving Lassa fever high priority in a major health program, the prevalence of overt disease appears to be low. Furthermore, the only treatment available is injections of serum from patients who have recovered. Since its mode of transmission is unknown and there is no vaccine, Lassa fever is impossible to control at present.[6] Therefore, concentration on preventing Lassa fever would be neither efficient nor efficacious.

Ascaris, the giant intestinal roundworm, causes the most prevalent infection of man, with one billion cases throughout the world.[7] Yet disability appears to be minor and death relatively rare.[3,4] Treatment, however, requires periodic chemotherapy for an indefinite period.[3,4,8] Control may ultimately require massive, long-term improvements in sanitary and agricultural practices to reduce reinfection. In view of the difficulty of eliminating exposure to the roundworm and the low morbidity associated with the infection, ascariasis deserves less attention than its ubiquity seems to suggest.

Malaria is associated with a far smaller mortality rate than that of Lassa fever and a far lower prevalence that that of ascariasis. Yet its mode of transmission is well known, and it produces much recurring illness and death; about one million children in Africa alone die annually from malaria.[9] What also distinguishes malaria from Lassa fever and ascariasis is that it can be controlled through regular mosquito-spraying programs or chemoprophylaxis.[3,9] Of these three infections, then, malaria would be as signed the highest priority for prevention in the most effective approach to reducing morbidity and mortality.

By means of the process outlined above for Lassa fever, ascariasis and malaria, the major infections endemic to the developing world (Table 1) were evaluated and assigned high (I), medium (II) or low (III) priorities. Within categories exact rank is not of major importance, and rank may change or items may be added or deleted, depending on the geographic area under consideration. For instance, schistosomiasis, to which a high priority was assigned, does not occur in many areas of the developing world. Our results and rationale for the proposed hierarchy are listed in Table 3.

Table 1. Prevalence, Mortality and Morbidity of the Major Infectious Diseases of Africa, Asia and Latin America, 1977-1978.*

INFECTION	INFECTIONS (THOUSANDS/Yr)	DEATHS (THOUSANDS/Yr)	DISEASE (THOUSANDS OF CASES/Yr)	AVERAGE No. OF DAYS OF LIFE LOST	RELATIVE PERSONAL DISABILITY**

				(PER CASE)	
Diarrheas	3-5,000,000	5-10,000	3-5,000,000	3-5	2
Respiratory infections		4-5000		5-7	2-3
Malaria	800,000	1200	150,000	3-5	2
Measles	85,000	900	80,000	10-14	2
Schistosomiasis	200,000	500-1000	20,000	600 1000	3-4
Whooping cough	70000	254450	20,000	21-28	2
Tuberculosis	1,000,000	400	7000	200-400	3
Neonatal tetanus	120-180	100-150	120-180	7-10	1
Diphtheria	40,000	50-60	700-90.0	7-10	1
Hookworm	7 - 900 000	50-60	1500	100	4
South American trypanosomiasis	12000	60	1200	600	2
Onchocerciasis					
Skin disease		Low	2-5000	3000	3
	30,000				
River blindness		20-50	200-500	3000	1-2
Meningitis	150	30	150	7-10	1
Amebiasis	400,000	30	1500	7-10	3

Ascariasis	800,000 1,000.000	20	1000	7-10	3
Poliomyelitis	80,000	10-20	2000	3000+	2
Typhoid	1000	25	500	14-28	2
Leishmaniasis	12,000	5	12,000	100-200	3
African trypanosomiasis	1000	5	10	150	1
Leprosy		Very low	12,000	500-3000	2-1
Trichuriasis	500,000	Low	100	7-10	3
Filariasis	250,000	Low	2-3000	1000	1
Giardiasis	200,000	Very low	500	5-7	1
Dengue	3 4000	0.1	1-2000	5-7	2
Malnutrition	5-800,000	2000			

* Based on estimates from the World Health Organisation and its Special Programme for Research and Training in Tropical Diseases, confirmed or modified by extrapolations from published epidemiologic studies performed in well defined populations (see references). Figures do not always match those officially reported, because under-reporting is great.

** 1 denotes bedridden, 2 able to function on own to some extent, 3 ambulatory, & 4 minor.

Table 2. An Approach to the Establishment Priorities for Disease Control, Based on Prevalence, Mortality, Morbidity and Feasibility of Control of Three Representative Infections.

Infection	Prevalence	Mortality	Mortality	Feasibility of control	Priority
Lassa fever	Unknown (thought to be low)	High (30-66%)	Moderate (bedridden 7-21 days)	Extremely poor al present	Low prevalence low,

					feasibility of control poor
Ascariasis	Extremely high (thought to affect 1 billion people)	Extremely low (approximately 0,001 %)	Low (minor disability & often assymptomatic)	Poor (continuous drug treatment required)	Low: mortality & morbidity low, feasibility of control poor
Malaria	High (more than 300 million infected annually)	Low (approximately 0.1%)	High (severe, many complications, often recurrent)	Good (chemoprophylaxis available; regular spraying programs for vectors practical)	High: prevalence high, morbidity high, feasibility of control good

Group I contains the infections causing the greatest amount of most readily preventable illness and death: diarrheal diseases, malaria, measles, whooping cough, schistosomiasis and neonatal tetanus. With the exception of schistosomiasis, all the infections receiving highest priority for health-care planning affect young children more than adults.[10-14] Together with respiratory infections and malnutrition, they account for most of the morbidity and mortality among infants and young children.[11,15,17] Members of this age group (five years old or less) have a death rate many times greater than that of their counterparts in Western countries - accounting for 40 to 60 per cent of all mortality in most less developed countries.[11,15,17] It infant and child deaths from these infections are reduced, a large decline in the overall death rate will result. Such a situation would be an optimal outcome of a selective disease-control program.

Groups II and III contain health problems that are either less important or more difficult to control. Respiratory infections, a major cause of disability and death, are not listed in Group I because of the difficulties involved in preventing and managing them. A wide variety of viruses and bacteria are associated with pulmonary infections, and no specific causative agent has been found in most patients.[16,28] As in the industrialized world, where pneumonia is frequently the terminal episode in elderly patients weakened by cancer or cardiovascular disease, lower-respiratory-tract infections affect children in developing countries who are already afflicted with chronic malnutrition and parasitic infections.[16] Pneumococcal and influenza vaccines prevent only a small percentage of cases, and influenza immunization must be given almost yearly because the virus changes antigenically. When penicillin injections were given to all children with clinical signs of pneumonia in the Narangwal Project in India, the mortality rate decreased by 50 per

cent,[21] but this method must be evaluated more extensively before it can be regarded as a major improvement in prevention of respiratory disease.

A medium or low priority was assigned if control measures were inadequate. For example, there is no acceptable therapy for chronic Chagas' disease.[3,4] Only toxic drugs and procedures of unknown efficacy, such as nodulectomy, are available for treatment of onchocerciasis.[3,4] Leprosy and tuberculosis require years of drug therapy and even longer follow-up periods to ensure cure.[4,22,23] instead of attempting immediate, large-scale treatment programs for these infections, the most efficient approach may be to invest in research and development of less costly and more efficacious means of prevention and therapy. To reiterate, the most important factor in establishing priorities for endemic infections, even when evaluating diseases with high case rates, is a knowledge of which diseases contribute most to the burden of illness in an area and which are reasonably controllable.

Table 3. Priorities for Disease Control in the Developing World, Based on Prevalence, Mortality, Morbidity and Feasibility of Control.

Priority group	Reasons roe Assignment to this category
I High	High prevalence, high mortality or high morbidity, effective control
Diarrheal diseases	
Measles	
Malaria	
Whooping cough	
Schistosomiasis	
Neonatal tetanus	
II Medium	
Respiratory infections	High prevalence, high mortality, no effective control
Poliomyelitis	High prevalence, low mortality, effective control
Tuberculosis	High prevalence, high mortality, control difficult
Onchocerciasis	Medium prevalence, high morbidity, low mortality, control difficult

Meningitis	Medium prevalence, high mortality, control difficult
typhoid	Medium prevalence, high mortality, control difficult
Hookworm	High prevalence, low mortality, control difficult
Malnutrition	High prevalence, high morbidity, control complex
III Low	
South American trypanosomiasis (Chagas' disease)	Control difficult
African trypanosomiasis	Low prevalence, control difficult
Leprosy	Control difficult
Ascariasis	Low mortality, low morbidity, control difficult
Diphtheria	Low mortality, low morbidity
Amebiasis	Control difficult
Leishmaniasis	Control difficult
Giardiasis	Control difficult
Filariasis	Control difficult
Dengue	Control difficult

EVALUATING AND SELECTING MEDICAL INTERVENTIONS

Once diseases are selected for prevention and treat. meet, the next step is to devise intervention programs of reasonable cost and practicability. The interventions relevant to the world's developing areas that are considered below are comprehensive primary health care (which includes general development as well as all systems of disease control), basic primary health care, multiple disease-control measures (e.g., insecticides, water supplies), selective primary health care, and research. Below is a discussion of each approach, with emphasis on the relative cost involved in undertaking and maintaining these programs and on the benefits that have accrued.

This section of our analysis relies on reported results from individual studies conducted in various parts of the world. In addition, we have examined estimates of cost and effectiveness in terms of expected deaths averted by each intervention for a model area in Africa. The model area is an agricultural, rural portion of Sub-Saharan tropical Africa with a population of about 500,000 (100,000 are five years old or less). For reference purposes, the average figures for Sub-Saharan Africa will be used: the birth rate is 46 per thousand total population, the crude death rate 19 per thousand total population, and the infant mortality rate 147 per thousand live births.[24,25]

Comprehensive versus Basic Primary Health Care

Comprehensive primary health care for everyone is the best available means of conquering global disease, the humane and noble goal declared at Alma Ata. As defined by the World Health Organization, this system encompasses development of all segments of the economy, ready and universal access to curative care, prevention of endemic disease, proper sanitation and safe water supplies, immunization, nutrition, health education, maternal and child care and family planning. Since resources available for health programs are usually limited, the provision of comprehensive primary health care to everyone in the near future remains unlikely.

Basic primary health-care systems are far more circumscribed in their goals, which are to provide health workers and establish clinics for treating all illnesses within a population. Nevertheless, this approach is far from inexpensive. The World Bank has estimated that the cost of furnishing basic health services to all the poor in developing countries by the year 2000 will be $5.4 to $9.3 billion (in 1975 prices).[24] This investment, which includes only initial capital investment and training costs, would provide one community health worker or auxiliary nurse-midwife for every 1500 to 2000 people and one health facility for every 8000 to 12,000 people or every 10 km^2, whichever is greater. In the model area in Africa, the World Bank estimated that supplying the minimum care offered by building one health post with one vehicle per 10,000 people and training 125 auxiliary nurse-midwives and 250 community health workers would cost $2,500,000, or $5 per capita. To this figure must be added the recurrent costs of salaries, drugs, supplies and maintenance. Other costs not included are for training facilities, continuing education, expansion of referral services and development of communication, transportation and administrative networks to supply and manage the health facilities. Furthermore, the effectiveness of this model program for averting deaths or applying such preventive measures as education in sanitation and nutrition has not been clearly established.

The pilot projects for providing basic health-cam services that have been evaluated vary in their effectiveness in improving the general level of health care. For example, an outside evaluation of primary health service in Ghana revealed that a third to half the population of the districts lived outside the effective reach of health units providing primary care. Only about one fifth of the births were supervised by trained midwives; only one fifth of the children under the age of five years had been seen in a child-health clinic, and two thirds of the population lacked environmental sanitation services. Furthermore, the services were often of poor quality, notably in the crucial area of child care.[27,28]

The cost and effectiveness of several experimental programs providing primary health care in localized areas have been compared in Imesi, Nigeria[29]; Etimesgut, Turkey[30,31]; Narangwal, India[21]; Jamkhed, India[32,33]; Guatemalan villages[34]; Hanover, Jamaica[35-37]; and Kavar, Iran.[38] The estimated cost per capita varied widely among the programs, particularly because they were initiated at different times over the past 15 to 20 years and furnished different services to their communities. In general, however, the cost per capita ranged between l and 2 per cent of the national per capita income of the particular country. The cost For infant deaths averted were difficult to compare because of the paucity of control groups and inconsistency of the population groups monitored. Figures ranged from $144 to $20,000, with a median of $700. The only precise calculations for the costs per infant death averted ($144) or child death evened ($988 per one to three-year-old child) were for a medical-care and nutrition-supplementation project in Narangwal, India.[21] The estimates were much higher for deaths averted by nutrition supplements.

Under some circumstances, programs of basic primary health care have been successful, but the cost and the degree improvement in community health have varied markedly enough that refinements in the approach are still needed.

Multiple Disease-Control Measures

These interventions, which include vector control, water and sanitation programs and nutrition supplementation, are more specific and easily managed than primary health-care programs, and they control many similarly transmitted diseases simultaneously. They can decrease mortality and morbidity and have served as interim strategies for health care in less developed countries.

Vector Control

Vector control is directed at managing the insects and mollusks that carry human disease. This approach has the advantage of being comparatively inexpensive, but it must be continued indefinitely and may be ephemeral since the vectors tend to become resistant. The examples below reveal some of the complexities of maintaining vector control.

The control of malaria transmission through insecticides has been highly effective. In the tropical regions and savannas of Africa, twice-yearly spraying has decreased the crude death rate by approximately 40 per cent and infant mortality by 50 per cent.[39-41] The World Health Organization has estimated that the average cost for house-to-house spraying with chlorophenothane (DDT) is $2 per capita annually.[9] Therefore, the cost per adult and infant death averted is $250, and the cost per infant death averted is $600. Unfortunately, eradication of malaria with insecticides is becoming more difficult to accomplish. Because mosquitoes can be expected to become resistant to DDT within a few years, other, much more expensive pesticides must be substituted; the use of propoxur or fenetrithion will raise the cost of the chemicals five to 10 times.[9] Furthermore, there is no way of knowing how long these insecticides will remain toxic to the mosquitoes. Among the mosquitoes in which widespread resistance to insecticides has developed are *Culex pipiens fatigans* the major vector of urban filariasis, and *Aedes aegypti*, the vector of yellow fever and dengue.[5]

Two other vector-control programs illustrate the prolonged maintenance required by this type of health intervention. Onchocerciasis, a potentially blinding helminth infection affecting 30 million people in Africa, is being managed in the Volta River Basin through a 20-year larvicide operation to control the blackfly vector. The program is estimated to cost $18 per capita for the entire 20-year period or $.90 per capita per year.[26] Disability will be prevented, and economic activity in the area may increase if the program is successful, but continuous, indefinite applications of insecticide will be necessary. Since 1965, St. Lucia has had a program to control the snail-transmitted helminth infection schistosomiasis through molluscicides. An annual cost per capita of about $3.70 and good results have been reported: the prevalence of the infection has decreased from 45 to 35 per cent in adults and born 21 to 4 per cent in children. Despite these heartening figures, eradication of the vector cannot be considered on the horizon. Schistosomiasis is a long-term, chronic infection and the death rate will not begin to decline until many years after continuous mollusk control.

Water and Sanitation Programs

Proper sanitation and clean water make a substantial difference in the amount of disease in an area, but the financial investment involved is enormous. The success of such projects also depends on rigorous maintenance and alteration of engrained cultural habits.

With the installation of community water supplies and sanitation in developing areas, deaths from typhoid can be expected to decrease 60 to 80 per cent,[43] deaths from cholera 0 to 70 per cent,[43-48] from other diarrheas 0 to 5 per cent,[48-51] from ascaris and other intestinal helminths 0 to 50 per cent[8,10,52-54] and from schistosomiasis 50 per cent[42,52] (after 15 to 20 years). The World Bank has estimated that the cost of providing community water supplies and sanitation to all those in need by the year 2000 will be $135 to $260 billion.[26,35] Construction of a rural community stand-pipe costs $20 to $26 per capita, and rural sanitation costs $4 to $5 per capita. In urban areas the costs are $31 and $23, respectively. In our model area of Sub-Saharan Africa the initial investment would be $12 to $15 million if amortization and annual maintenance costs are only 10 per cent of this sum, the annual cost per deaths averted will be $2400 to $2900, and the cost per infant and child deaths averted will be $3600 to $4300.

What must be realized is that the above sums are largely for public standpipes, which are not highly effective in reducing morbidity and mortality from water-related diseases. It is well documented that connections inside the house are necessary to encourage the hygienic use of water.[56] For example, shigella-caused diarrheas decreased 5 per cent with outside house connections but fell 50 per cent when sanitation and washing facilities were available within the home.[51]

All these estimates depend on exclusive use of protected sanitation and water supplies, without continuing use of environmental sources. In Bangladesh for example, there was no reduction in cholera in areas supplied with tube wells, primarily because of the use of contaminated surface water as well as the protected water supply.[47] In St. Lucia, contact with surface water could not be discouraged until household water supplies and then swimming pools and laundry units were installed, and an intensive health-education campaign was instituted.[42] In other words, changing peoples' habits in excretion and water usage takes more than introducing an adequate, dependable and convenient new

source. Realistically speaking, a pervasive and effective health-education campaign[37,38] is required.

Nutrition Supplementation

Nutrition programs have been advocated as among the most efficient means of decreasing morbidity and mortality in children, but supplementation alone has had no notable effect. Malnutrition is an underlying or associated factor in many deaths from infections in children; in a group of Latin American children, it was associated in 50 per cent of the cases.[39] Poor nutrition may also increase susceptibility to disease or predispose an infected child to more severe illness.[60-62] Conversely, infection may be a prominent cause of poor nutrition[61,63-66] since less food is ingested and absorbed by a sick child. Therefore, if infections could be controlled it is probable that the nutritional status of children would improve greatly. There have been some situations, however, in which malnutrition has been reported to protect against certain infections, e.g., the Sahel famine was thought to suppress malaria, and iron deficiency was reported to protect against bacterial intections.[67-76]

In view of these findings, it is not surprising that few nutrition-supplementation programs alone have effected a major decrease in the death rate. The Narangwal Project is one of these few, but even in that program the cost per death averted in infants was $213. In children one to three years old the cost was $3000 - 1.5 to three times higher than the cost of medical care alone.[21]

Selective Primary Health Care

The selective approach to controlling endemic disease in the developing countries is potentially the most cost-effective type of medical intervention. On the basis of high morbidity and mortality and of feasibility of control, a circumscribed number of diseases are selected for prevention in a clearly defined population. Since few programs based on this selective model of prevention and treatment have been attempted, the following approach is proposed. The principal recipients of care would be children up to three years old and women in the childbearing years. The care provided would be measles and diphtheria-pertussis-tetanus (DPT) vaccination for children over six months old, tetanus toxoid to all women of childbearing age, encouragement of long-term breast feeding, provision of chloroquine for episodes of fever in children under three years old in areas where malaria is prevalent and, finally, oral rehydration packets and instruction.

If even 50 per cent of the children and their mothers and 50 per cent of the pregnant women in a community were contacted, deaths from measles would be expected to decrease at least 50 per cent,[71,72] deaths from whooping cousin 30 per cent,[73] from neonatal tetanus 45 per cent,[74] from diarrhea 25 to 30 per cent[75,76] and from malaria 25 per cent.[9] Oral rehydration has been used successfully in hospitals,[77,78] in out patient clinics79 and recently in the home[75,76] to treat diarrheas of numerous causes.

These services could be provided by fixed units or by mobile teams visiting once every four to six month in areas where resources were more limited. Mobile units have been successfully used in immunization programs for smallpox and measles,[80,81] in treatment

services directed against African trypanosomiasis and meningitis[82] and in provision of child care in rural areas.[83-85]

The cost of fixed units would be similar to that of basic primary health care, although efficiency should be much greater. Cost estimates for a mobile health unit used in the model area in Africa for malaria control and water and sanitation programs were based on an extensive study of the Botswana health services by Gish and Walker.[85] They estimated $1.26 as the cost per patient contact in 1974, on a sample 306-km trip that reached 753 patients; the estimated cost per infant and child death averted was $200 to $250. Medications accounted for 30 to 50 per cent of this cost, but this figure could be decreased with contributions of drugs from abroad or their manufacture within the country.

Whether the system is fixed or mobile, flexibility is necessary. The care package can be modified at any time according to the patterns of mortality and morbidity in the area served. Chemotherapy for intestinal helminths, treatment of schistosomiasis and supplementation with new vaccines or treatments as they become available are all types of selective primary health care that could be added or subtracted to this core of basic preventive care. It is important, however, for the service to concentrate on a minimum number of severe problems that affect large numbers of people and for which interventions of established efficacy can be provided at low cost.

Research

For a number of prevalent infections, treatment or preventive measures are expensive, difficult to administer, toxic or ineffective. These infections, which include Chagas' disease, African trypanosomiasis, leprosy and tuberculosis, may better be dealt with through an investment in research. In terms of the potential benefits, the cost of research is low. Indeed, the total amount now being spent on research in all tropical diseases is approximately $60 million, exceedingly small in relation to the number of people infected. As Table 4 shows, expenditures for research on some of the major diseases in the developing world have by far the lowest per-capita cost of all medical interventions discussed.[84]

The estimated cost for the research and development leading to the pneumococcal vaccine licensed in the United States in 1978 was $3 to $4 million (Austrian R: personal communication). Death and disability in developing countries would be reduced by heat-stable vaccines for measles, malaria, leprosy and rotavirus and *Escherichia coli*-induced diarrheas, by improved chemotherapy for leprosy, tuberculosis, American and African trypanosomiasis, onchocerciasis and filariasis and by depot drugs [or malaria and intestinal helminths.

Table 4. Research Funding for Major Diseases of the Developing World, 1978.

Infection	Amount of Funding ($)	Cost/Infected Person/Yr ($)
Malaria	15,000,000	0.02

Schistosomiasis	7,000.000	0.04
Filariasis	2,000,000	0.01
Trypanosomiasis	5,000,000	0.38
Leishmaniasis	1,200,000	0.10
Leprosy	2,000,000	0.16

CONCLUSIONS

Until comprehensive primary health care can be made available to all, services aimed at the few moss important diseases (selective primary health care) may be the most effective means of improving the health of the greatest number of people. The crucial point is how to measure the effectiveness of medical interventions. In all the foregoing calculations, we based our analysis of cost effectiveness on changes in mortality or deaths averted. We did not measure the illness and disability that would be prevented. No other benefits For which intervention may have been responsible were measured because they are much more difficult to quantify. The inadequacy of available data makes it impossible to measure distinct and undeniable secondary benefits. For example, water supplies close by would save time for the women who carry water, and increased amounts could irrigate a home garden.

Accordingly, Table 5 summarizes the estimated costs per capita and per death averted for the various health interventions considered. The per capita costs are calculated in terms of the entire infant, child and adult population or the area covered by the service. A-5 the table Suggests, selective primary health care may be a cost-effective interim intervention For many less developed areas.

Table 5. Estimated Annual Costs of Different Systems of Health Intervention.

Intervention	Per Capita cost ($)	Cost per infant and/or Child Death Averted* ($)
Basic primary health care **		
Range	0.40-7.50	144-20,000 (I)
Median	2.00	700
Mosquito control for malaria	2 00	600 (I)
Onchocerciasis control program	0.50	Few infant & child deaths
Mollusk control for	3.70	Few infant & child deaths

schistosomiasis		
Community water supplies & sanitation	30-54	3600-4300 (I,C)
Narangwal nutrition	1.75	213(I)
supplementation		3000 (C)
Selective primary health care ***	0.25	200 250 (I,C)

* I denotes infant & C child.
** Delivered by village health workers
*** In this case, delivered by mobile units

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Session 6: Health care delivery systems

Handout 6C : Understanding traditional medicine

Trainer Attachment 6A: Primary health care worksheet

TOTAL TIME: 2 hours

OVERVIEW

To work effectively in their communities, PCV's need an understanding of the govern mental structure of the host country, in particular the health care delivery system. In this session, participants analyze the organization, priorities and goals of the country's health system as they relate to other parts of the government and they identify primary health care activities within this structure. As part of the exercise, participants also generate questions to ask host country nationals and representatives of international agencies who will visit the workshop during Session 7.

This session relates to and draws upon those aspects of core curriculum training which covers the governmental structure of the host country.

OBJECTIVES

• To generate a list of questions to ask agency and ministry representatives about the role of the PCV in PHC during Session 3. (Steps 1-7)

• To describe the organization and roles of formal and traditional health personnel and facilities in the host country's health care delivery systems. (Steps 1, 3)

• To identify the national agencies, ministries and international organizations with which the Volunteers will work or interface. (Steps 1, 4)

• To explain the host country's health plan and/or national policy on Primary Health Care. (Step 2)

RESOURCES

- Role of the Volunteer in Development (Peace Corps)
- Cross Cultural Training (Peace Corps)

Handouts:

- 6A Organizational Chart of Governmental Structure (to be developed by trainer)
- 6B Organizational Chart of National Health System (to be developed by trainer)
- 6C Understanding Traditional Medicine
- 6D Host Country National Health Plan or National Policy of PHC (to be developed by trainer)

Trainer Attachment:

- 6A PHC Worksheet

MATERIALS

Newsprint, markers, cardboard, scissors, writing paper, pen.

PROCEDURE

Trainer Note

This session will require considerable preparation. Beforehand, learn as much as you can about the host country's health policy/ plan and the organizational structure of the nation's health care delivery system. Also, obtain a chart of the organizational structure of the Ministry of Health and a copy of their health plan. Before this session, make a large version of the charts in Handouts 6A and 6B.

Step 1 (20 min)
Introduction to the Host Country's Governmental Structure

Display Handout 6A (Organizational Chart of Governmental Structure) and Handout 6B (Organizational Chart of National Health System). Discuss the overall governmental structure identifying the various levels in the health care system and possible linkages that exist between these levels (ministries, departments, etc.).

Ask the group if they have any questions about the organizational structure of the government as presented in this step and or from other sources (ie., information presented in their other core curriculum training, or individual readings about the host country government).

Trainer Note

During Step 1 and continuing throughout this session, one of the participants should record the group's questions to pose to the panel who will participate in Session 7. The list of questions they develop should be reviewed by a language or cross-cultural trainer prior to being used in Session 7.

Step 2 (20 min)
Introduction to the Host Country's National Health Plan

Distribute Handout 6D (Host Country National Health Plan or National Policy of PHC) and allow about 10 minutes for the group to read through the policy, jotting down questions on particular issues as they read.

Based on their understanding of PHC as defined in Session 5, have participants identify and list the elements of PHC that are addressed in this policy or plan. Have individuals discuss possible reasons for the choices the country made in their PHC policy. Have them add these issues to the list started in Step 1.

Trainer Note

Same of the issues that the participants may raise are the following:

- Cost effectiveness of certain programs such as immunization vs. water and sanitation
- Amount of health budget spent for preventive vs. curative health care and the cost-effectiveness of each type of care
- Availability and placement of trained medical personnel (M.D.'s, nurse, midwives)
- Location and distribution of health posts
- Health services provided
- Constraints on government officials
- The role of traditional medicine in the health care structure
- Utilization, training and payment of village health workers
- Development of a health data system for PHC.

Step 3 (30 min)
Understanding Traditional Medicine

Distribute Handout 6C (Understanding Traditional Medicine) and allow the group 10 minutes to read this article. Based on this article and any cultural readings they may have been exposed to in the past (e.g., college courses on Africa, CAST or other pre-service training they have completed up to this point) have them identify the places where certain traditional health systems and practices interact with formal medical structures. Also have them discuss the possible implications stemming from a duality of systems.

Ask participants to record questions they have regarding the Ministries with which they will be working as well as where and how traditional practices, beliefs and structures are viewed or integrated in the country's policies.

Step 4 (20 min)
The Importance of Collaboration Between and Among National and International Agencies

Using the information and material gathered from talking with different national and international agency representatives, (such as AID, CDC, WHO, UNICEF, CARE, NGO's and PVO's) present a brief lecture (10 minutes) showing how these international agencies collaborate in the implementation of one PHC activity and where the role of the Volunteer fits into this schema. Also point out that team collaboration depends on each member of the group understanding the:

- Objectives of the Health Plan
- Organizational structure of the government
- Interfacing between traditional structures and beliefs, international organizations and the official government.

Post in front of the group a large version of the chart found in Trainer Attachment 6A (PHC Worksheet). Ask participants to apply the information from this and earlier sessions and use the worksheet to define and clarify the primary health care roles of the provider groups in their particular country and region.

Trainer Note	
The role of international organizations in country-specific programs usually entails the provision of resources such as the following:	
- USAID:	Technical assistance, equipment, supplies, funding.
- WHO:	Technical consultants, funds for training courses and trainers.
- UNICEF:	Vaccines, vehicles, cold chain equipment, ORS packets.
- CDC:	Technical assistance, trainers, supplemental vaccines, chloroquine.
- Peace Corps:	Manpower.

Trainer Attachment 6A (PHC Worksheet) lists broad categories of providers in the first column starting with the individual and family and working up to national agencies and ministries other than the Ministry of Health. The next four columns list the functions of PHC delivery, planning, budgeting, scheduling, implementing and evaluating. In the spaces provided, briefly describe the roles of each type of health care provider. For example, under "planning" one might write "identification of needs" for the community.

It is not expected that the participants will be able to complete this worksheet at this time. The worksheet has been provided and should be introduced as a framework from which to structure questions and to identify and compare the roles of persons and organizations involved in the PHC process. The complete worksheet summarizes the pattern of PHC roles for the country. Reading down each column you can compare the roles of each group for planning, budgeting and scheduling, implementing, and evaluating. Reading across, you find a role description for each group in terms of the four areas.

It is anticipated that by the end of their training the participants will be able to complete this worksheet and that it can be used as a posttest instrument as well as a useful reference in their future work.

Step 5 (20 min)
Generating the Final List of Questions for the Panel

Drawing on all the discussions about the host country's governmental organization and health policy, the traditional health system, and the function of international agencies, have the group compile a final list of questions to ask the panelists who will participate in Session 7.

Trainer Note
Additional questions that may be added at this time to their list of questions are;
- What have been some of the successes and/or failures in various PHC

Handout 6C : Understanding traditional medicine

That august institution the French National Academy of Medicine has sometimes been criticized for conservatism and lack of receptiveness to any trends that do not fall within the strictest confines of scientific and clinical thought. The latest edition of the Academy's *Bulletin*, however, carries an article on traditional medicine by the Dean of the Faculty of Medicine at Abidjan. A discussion of the paper by members of the Academy, moreover, showed complete agreement that traditional medicine is needed in the rural communities of Africa. We are pleased to reproduce this article below.

In pursuing its aims in Africa, the World Health Organization has, over the past decade, been particularly interested in the practice of traditional medicine in rural areas and has organized a number of conferences on this subject, the main ones having been held in Dakar in 1968, Cairo in 1975, and Abidjan in 1979.

The African and Malagasy Council on Higher Education similarly held symposia on traditional medicine and the African pharmacopoeia in Lomé in 1974, Niamey in 1976, Kigali in 1977 and Libreville in 1979.

One has to conclude, therefore, that a clear trend is emerging in favour of gaining a better understanding of traditional African medicine and, hence, a precise evaluation of how it can be applied in the modern world. But, on first consideration, is this not a dangerous venture? is not the problem being tackled an extremely complex one? What, objectively, can one expect from this sort of medicine in an age when modern medicine has made such great progress in promoting health throughout the world? In order to find rational answers to these questions it is necessary to examine the reasons behind WHO's re-evaluation of traditional medicine, to study the concept of illness in the traditional sub-Saharan African setting and, lastly, to broach the stud' of this system of medicine and its long-term prospects.

The Reasons for Re- evaluating Traditional Medicine

Despite the endeavours of governments and international organizations, the failure of health services to meet the basic health needs of Third World populations is notorious These services are accessible to only a small minority (less than 15%) of the rural populations, which are those most vulnerable to illness because of the many different factors operating upon them: a hostile environment, poverty, ignorance of the objective causes of ill-health and of appropriate protective measures, undernourishment, and malnutrition.

Thus, the rural communities, which represent 80% of national African communities, are of paramount concern to governments faced with the responsibility of bringing them primary health care on the spot, protecting them against lethal and dangerously widespread endemic diseases, and providing them with health education. The means to be applied in order to remedy this situation are defined in terms of hospitals, dispensaries, health centres, mobile or fixed medicosocial structures, and the distribution of a sufficient quantity of suitable drugs. In addition, for any health measure to be effective, it must be

combined with simultaneous action in the following areas: agriculture, housing, urban development, transport and communications, water supplies and, lastly, education. This is a long, exacting, and highly expensive task.

[[1] Dean or the Faculty of Medicine, Abidjan, Ivory Coast. The article is reproduced from a paper published in *Bulletin de l'Académie nationale de Medicine*, 164(5): 428(1980).]

An extremely significant factor in this regard is the cost of health care as a proportion of the gross national product of these countries.

For the sake of comparison, it is useful to note that the annual cost of health care in France is approximately 7% of the gross national product, or about 1800 francs annually per head, an amount which exceeds the entire gross national product in most of the sub-Saharan African countries (Table 1).

Table 1. Per capita gross national product (francs)

France (1974)	25 231
Ivory Coast	1 920
Senegal	1 280
Upper Volta	330
Togo	780

There is also a large disparity in incomes within the countries themselves. In Senegal the average annual income in the rural area is 880 francs where as for wage-earners in Dakar it is 10 000 francs.

A further major problem is that of-the quantity and quality of the medical and paramedical staff in relation to the existing health situation. The number of qualified medical workers is absurdly low, as shown in Table 2, which gives the numbers of doctors and pharmacists in African countries, most of whom have set up their practices in major towns offering them security, comfort and leisure.

Table 2. Numbers of qualified medical workers

	1975 Population	Pharmacists				
	in millions	Total		Dispensaries		Physicians
		1970	1975	1965	1975	
Benin	2.7	24	-	13	20	83

Ivory Coast	5	91	103	41	48	355
Guinea	3	8	-	7	-	77
Upper Volta	8	13	16	5	7	58
Mali	3.8	11	18	8	17	121
Mauritania	1	7	-	1	-	68
Niger	15	10	-	4	-	69
Senegal	3.9	64	-	42	57	263
Togo	2.1	-	20	14	15	70

It is difficult to argue with J. Flahaut, who wrote: "In these conditions one is led to conclude that Western notions of therapy have nothing to offer when it comes to dealing with the problems of the underprivileged." After conducting number of surveys in the field WHO an UNICEF have reached the same conclusion concerning the inadequacies of curative medicine and the costliness and unsuitability of hospital treatment modelled on that of the industrial countries.

The failure of health services to meet the basic health needs of Third World populations is notorious.

Having thus appraised the situation, WHO is considering a strategy aimed at using Africa's own resources, including the traditional medicine currently practiced in rural areas, with its major advantage of low cost, which has already ensured its survival for many generations.

This form of medicine has the funkier merit of being accepted spontaneously as an integral part of the local culture, and being identified with the emotional content of the illness in indigenous surroundings.

The Concept of Illness in the Traditional sub-Saharan African Setting

This concept constitutes the very foundation of traditional medicine. Illness is regarded as the material sign of a lack of harmony between a human being and his social corpus, between a person and his visible or invisible environment. This sign is itself the expression of a punishment imposed by nature on the individual who transgresses one of the laws of society, of the material or spiritual environment, thereby disturbing the normal balance of natural phenomena.

The illness may, however, be experienced as the result of an attack induced by a sorcerer, a man with occult knowledge able to unleash invisible elements in an assault upon the

health of another person. Again, the illness may sometimes be experienced as a message signifying the election of an individual. It then takes the form of a psychiatric syndrome, the genie making mad him whom it has chosen as its spokesman and priest and who refuses to submit to its will. Thus, the illness has no independent existence? being of supernatural origin in the majority of cases.

The healing process is subject to this logic and consequently consists of a number of different stages:

- firstly, the identification of the initial act which disturbed the established order or, in other words, the discovery of the violation of an established law or the evil spell emanating from another person;

- secondly, once the initial act is diagnosed, the spirits' forgiveness must be sought, the hostile force or malevolent sorcerer neutralized, and the damage caused by the initial fault repaired usually through sacrifices (sheep, chicken, eggs). Knowing how to find the offended spirit is not always easy.

Illness is regarded as the material sign of a lack of harmony between a human being and his social corpus.

Once these two hurdles of diagnosis and reparation have been surmounted, tee illness is freed of all spiritual connexions and becomes an independent entity on which any medication, traditional or modern, can act. The illness is now a purely somatic one.

The main causes of death in traditional Africa can therefore be summarized under four heads

(1) Failure to recognize the initial act responsible for the disturbance of the established order. Diviners profess to be able to diagnose the metaphysical source of illnesses and say what kind of therapist (traditional or modern) the patient should go to. They are, in fact, specialists in metaphysical etiology.

(2) Refusal of the initial force to accept any reparation There exist irreparable offences for which the only penalty is the death of the offender. The expiation of the offence through death is the sole condition required for society's well-being. In cases such as this one often hears the remark made "This patient is not suffering from a hospital illness", which means that the illness in question cannot be emptied of its metaphysical content and is therefore not amenable to any form of treatment. This explains why relatives do not behave aggressively towards doctors when patients die in hospital, while in Europe lawsuits are commonplace. Why blame the doctor's treatment when the verdict passed by the initial force is irrevocable?

(3) Delay in making the metaphysical diagnosis and effecting the reparation. Such a delay may lead to the illness taking an irreversible course unconnected with its metaphysical origins. It is as though the pathogenic factor carried a metaphysical charge that can be inhibited. If this inhibition does not take place in time, the intrinsic action of the pathogenic factor will be irreversible.

(4) Incompetence of the traditional or modern therapist in face of an independent disease, whether that independence is acquired or natural. It is interesting to note that a certain proportion of patients who come to die in our hospitals will have passed through the hands of practitioners of traditional medicine with some son of mastery of medicinal plants.

The Practice of Traditional Medicine and its Future

Practitioners of traditional medicine, known in French as *tradipraticiens*, a term given currency by WHO scientists and experts, can be divided into several categories:

- herbalists, who use plants;
- spiritualists, whose use of plants is very limited, their treatment being primarily metaphysical;
- the great spiritualist healers, who never use plants, but only incantations and rites;
- lastly, the diviners, that is to say herbalists v' ho practice divination and are essentially specialists in methaphysical diagnosis.

The testimony of these initiates informs us that the traditional practitioner's knowledge was initially transmitted by a spins whose mission is to watch over mankind and elect certain individuals as depositories of knowledge and practices enabling them to diagnose, prevent and treat various imbalances, whether physical, mental or social. This revelation is a free gift and explains why the practitioners accept gifts rather than fees, which Are forbidden. The gift received is the leitmotiv running through the homage which the practitioner must pay to the Supreme Being who watches over mankind and opens men's eyes to the secrets of nature.

The traditional practitioners who possess this spiritual power of diagnosis and the gift of healing the sick usually keep their knowledge an absolute secret. Some of them go so far as to declare that their knowledge or at least their gift of healing cannot be transmitted. Clearly, by its very nature this practice is liable to be viewed with a degree of scepticism aggravated by the factors that WHO experts hate pointed out namely:

- the vagueness of traditional practitioners' diagnoses;
- the laxity of their posology, governed as it is by an empiricism never called in question;
- the undue exploitation of non-material aspects;
- the practice of witchcraft and charlatanism;
- their failure so acknowledge limits to their competence.

On analysis one soon realizes that this type of medicine is particularly complex, placed as it is at a point where a certain medical expertise overlaps with a cosmic phenomenology. Consequently, the study of traditional medicine opens up two different avenues of research. The first, of concern to sociologists and psychiatrists, leads towards an ethnomedicine, that is, a discipline examining the role played by applied ethnology, culture, religion and psychology in all aspects of medicine. The second avenue leads to a more rational study bearing on the African pharmacopoeia.

Our concern as doctors and pharmacists, and no doubt the concern of WHO also, is to carry out studies in areas directly accessible to scientific research, which means in this context the study of medicinal plants in Africa. In fact, stimulated by WHO, the conviction is growing upon African scientists that in virtue of the wealth of non-mysterious information that is directly amenable to research and training, and the mastery of which will in practice lead to the relinquishment of magic, Africans, by concerted action, should be able to bar the way to mystification and help the development of their countries.

We can be confident that one day there will be a rational convergence between so-called "traditional" and modern medicine.

In this spirit and at the request of the Organization for African Unity, a number of research institutes have been set Up to study medicinal plants and the traditional pharmacopoeia. The main ones are at Cairo (Egypt), Dakar (Senegal), Ifé (Nigeria), Kampala (Uganda), Tananarive (Madagascar), Bamako (Mali), and Manpong-Akwapin (Ghana). These institutes have already made some progress, particularly in regard to the inventorying, plant-health control, and utilization of medicinal plants. Work is carried out by multidisciplinary teams bringing together botanists, ethnopharmacognosists, plant chemists, ethnosociologists, phytogeographers, physicians, pharmacists, traditional therapists, agronomists, foresters, and various other specialists such as clinicians, pharmacologists, biologists, geneticists, and biophysicists.

The immediate concern of each of these institutes is to study drugs of priority importance: anticancer, antimalarial, anthelmintic, antibiotic, hypertensive, cardiotonic and antiviral drugs, insecticides, and drugs to combat sickle-cell anaemia, diabetes and skin diseases. In the Ivory Coast a programme to study natural substances used in medicine has been launched with the participation of the Institute of Floristics, the School of Pharmacy (the pharmacodynamics and toxicology unit, pharmaceutical technology sad galenic pharmacy unit, ethnobotany unit and pharmacognosy unit), the Faculty of Sciences (extractive chemistry, crystallography, animal physiology, and electron microscopy laboratories), and the Faculty of Medicine (departments of immunohaematology and of physiology and functional examinations).

The School of Pharmacy has chosen two areas for particular study and coordination:

- substances protecting against, or healing, snake bites; and
- substances used in the treatment of sickle-cell anaemia or its symptoms.

It is worth mentioning that species of the following genera of African plants in current use are now included in the pharmacopoeias of the industrial countries: *Strophanthus*, *Strychnos*, *Rauwolfia*, *Cinchona*, *Centella*, *Aloe*, etc.

We are therefore justified in saying, in conclusion, that many different avenues of research are now opening up in the field of pharmacology and could lead to the discovery of new natural molecules to supplement those already known to modern medicine for the good of mankind throughout the world.

We can be confident that one day there will be a rational convergence between so-called "traditional" and modern medicine. This is what the future would appear to have in store for us.

(From: Yangni-Angate, Antoine. Geneva. World Health Forum. 1981. pp. 240-244)

Trainer Attachment 6A: Primary health care worksheet

	PLANNING	BUDGETING SCHEDULING	IMPLEMENTING	EVALUATING
Individual and				

family				
Community				
Health center team				
District health team				
Regional health team				
National health programs				
Ministry of health				
Other sectors				
National agencies and ministries				

(From: MEDEX, District and national Planning and Management Workshops Manual. Honolulu. 1983. P. 124.)

Session 7: The role of the peace corps volunteer in primary health care in primary health care

TOTAL TIME: 2 hours

OVERVIEW

An awareness of how the Volunteer's duties are interlinked with the host country's overall health plans can help the Volunteer make better choices in carrying out the tasks included in their job assignments. In this session trainers, participants, host country and other agency representatives have an opportunity to clarify their expectations and understanding of their roles. Through short presentations and a panel discussion, the agency representatives present information and answer the questions developed in Session 6 concerning the PCV's role in the host country's efforts to accomplish their health goals.

OBJECTIVES

• To clarify expectations about the role of the Volunteer in PHC. (Steps 2-4)
• To define the organization and priorities of the host country and international agencies. (Step 2)
• To determine where PCV duties link with and contribute to their host country's primary health care activities and plans. (Steps 4)

RESOURCES

- The list of questions generated in Session 6 to address to the panel.
- Persons (Volunteers) with strong language capabilities to act as moderators and, if needed, as interpreters.
- Representatives of Host Country and International Agencies.

MATERIALS

A comfortable meeting room for the panel discussion, newsprint and markers, any special materials such as audio-visual aids requested by the panelists.

PROCEDURE

Trainer Note

This session will vary depending on the location of the training center (e.g., capital city vs. rural training site), and the availability of Ministry officials and representatives of international agencies. If the Trainees have just arrived in the country and have not been exposed to any cross-cultural or language training, this session should be scheduled for a later date.

Prior to the outset of the actual training course, the trainer or the country staff should contact representatives from several agencies, particularly the Ministry of Health and the Ministries under which the participants will be working, but also including WHO, UNICEF, USAID, and CDC. Invite representatives from host organizations (maximum five) to attend this session and lunch or refreshments immediately following. Provide the guests with:

- An agenda for this session (i.e., training objectives, sequence of speakers and topics)
- An overview of the training course goals and objectives
- The projects the participants will be involved with.

Ask the official agency representatives to present a five - minute talk concerning the following suggested subjects:

- Official government health policy/plan
- Structure of the government and interrelationships of the various ministries
- The National health care delivery system
- The role of the PCV in the country
- The general role and activities of WHO and country specific WHO activities
- The role of USAID in promoting PHC activities, i.e., which ones they have chosen to support and why.

Invite the Peace Corps Country Director(s) and APCD for health to attend these presentations. Have the representatives arrive in time to look over the list of questions the participants would like them to address. Explain that these issues will be dealt with during the discussion following their presentations.

If no one in the training group has a command of the language, request a current Volunteer or a bilingual language instructor to act as an interpreter and moderator for this session and to translate the list of questions generated by the group.

Help the moderator prepare for his or her role prior to the session. If primary health care is a sensitive issue in the host country, discuss with the moderator hew to manage the open forum such that the climate is appropriate and comfortable for all involved.

Step 1 (15 min)
Introduction of the Agency Representatives

Welcome and introduce each of the representatives. Have the moderator introduce the training group to the panelists, giving a brief profile of the general background of the participants. (This may be done on an individual basis if language is not a barrier and the group is not small.)

Step 2 (40-50 min)
Prepared Presentations

Ask each representative to give his or her presentation.

Trainer Note

Ideally, begin the presentations with the representative of the MOH followed by representatives of other ministries, WHO, UNICEF, USAID, CDC, and so forth.

Be sure that everyone is aware that there will be ample time for questions following all the presentations.

Step 3 (35 min)
Questions and Answers

After the representatives have finished their presentations, ask the moderator to lead an open forum for questions and answers.

Trainer Note

Ask the moderator to:

- Keep the pace moving and guard against any one panelist being called upon too little or too much;

- Encourage discussion among the panelists;

- Use the list of questions developed and reviewed from Session 6 as a basis for the open forum, but also allow follow-up questions as the time permits;

- Intervene if any questions seem misdirected, culturally insensitive, or too political. (The review process recommended in Session 6 should help to minimize the potential for this type of occurrence.)

Step 4 (20 min)
Closure

Have the moderator close the session by asking the participants and guests to reflect for a moment on the information gained from this session, Ask them to work together to develop a list of the three to five most important goals they would want to see these Peace Corps Volunteer's accomplish during their two year service. Afterwards, thank the representatives for attending this session and invite them to join the training group for lunch or for refreshments.

Trainer Note

Taking into consideration the cultural norms and the constraints of the training schedule , arrange a lunch, dinner, or at least simple refreshments to follow the panel discussion. This informal time provides an opportunity for more discussion.

Session 8: Factors affecting health

Trainer Attachment 8A : The story of Ibrahim
Trainer Attachment 8B : But why ...?
Trainer Attachment 8C : The chain of causes
Trainer Attachment 8D: Roles and setting for role play on traditional and modern health systems

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TOTAL TIME: 2 hours

OVERVIEW

Primary Health Care is the philosophical framework for most community-based programs such as the CCCD initiative. An important aspect of the primary health care perspective is the view that health includes mental, social and physical well-being. In this session, participants examine the concept of health and its interrelationship with the cultural, political, social and economic systems in their host country. Participants identify factors that affect personal, family and community health, including beliefs, practices and socio-economic conditions. This session provides essential background for the development of categories of information for learning about the community (Session 9).

OBJECTIVES

• To share concepts of health defined in terms of psychological, social, and physical well-being. (Steps 1, 2)

• To define what health means for the individual, the family and the community. (Steps 3, 4)

• To identify beliefs, practices and socio-economic conditions which affect individual, family and community health. (Steps 3, 4)

• To examine factors influencing the utilization of health services. (Steps 4-7)

RESOURCES

- <u>Role of the Volunteer in Development</u> (Peace Corps)
- <u>Helping Health Workers Learn</u> (Chapter 26)
- <u>Community, Culture and Care</u> (Chapters 10 and 12)

Trainer Attachments:

- 8A Story of Ibrahim
- 8B "But Why ...?"
- 8C Chain of Causes
- 8D Role Play

MATERIALS

Cardboard, colored pens, flannelgram, newsprint, pins, scissors and markers.

PROCEDURE

Trainer Note

Prior to beginning this session prepare the cardboard links and symbols as described in Trainer Attachment 8C (Chain of Causes). Also ask five participants to prepare the role play in Step 5 a day before the session occurs. Provide these participants with role descriptions from Trainer Attachment 8D and technical information from Session 38 (Program consideration for Malaria control) and Session 41 (Rehydration Therapy).

This session should be coordinated with the participants' Cross-Cultural and the Role of the Volunteer in Development Training.

Step 1 (10 min)
Defining Well-Being

Ask the participants to write on a small strip of paper a definition of what "well-being" means to them. Give them five minutes to consider the question and to write short one word or phrase definitions on paper and put them into a bowl. While they are writing, post in front of the room newsprint prepared with the categories mentioned below in the Trainer Note. Then, ask for volunteers to select four papers each from the bowl, read the definitions, and place them on the newsprint under the most appropriate category.

Trainer Note

To facilitate participant's understanding of the concepts that underlie the definition of well-being, prepare a chart by drawing and labeling four columns on a sheet of newsprint as shown below:

<u>BIOLOGICAL</u>	<u>PHYSICAL</u>	<u>MENTAL</u>	<u>SOCIAL</u>
(relating to life and living processes)	(relating to conditions in the physical environment, e.g.,	(relating to the total emotional and intellectual responses of an individual	(relating to culture, economics, and

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	housing, water, food)	to his or her environment)	politics)

Step 2 (10 min)
Defining Health

Ask participants to briefly discuss the collective definitions in light of the way they break down into the four categories (biological, physical, mental and social) and how these definitions relate to the concept of health. Have the group use their definition of well-being to help them come up with a definition of health. Write this definition on newsprint and beside it post the WHO definition (see Trainer Note). Have the group compare the two definitions and reach a conclusion on what health means to them in the context of the here-and-now.

Trainer Note
The World Health Organization defines health as "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."

Step 3 (10 min)
Story of Ibrahim - Individual, Family, and Community Health

Ask everyone to listen carefully as you read Trainer Attachment 8A (Story of Ibrahim) and to note all the factors that may have contributed to his health status and that of his family and community.

Trainer Note
The Story of Ibrahim should be adapted to local social, physical and medical conditions. You may want to use a story that takes place in your own area; just be sure that the narrative includes several factors that affect individual, family, and community health.

Step 4 (20 min)
Playing the "But Why" Game

To help participants analyze the story in terms of what caused Ibrahim's death, ask them to play the "But Why" game as described in Trainer Attachment 8B. As they move through the "But Why" questions and begin identifying all the different factors which led to the story's outcome, have them form a "Chain of Causes" as described in Trainer Attachment 8C. Each time the group states a cause for the health outcome, have one person pin or stick the appropriate link on the flannel board next to the corresponding symbol for the individual, family or community.

Wind up the processing of the story by asking the group the following questions:

- Why then did Ibrahim die?

- Why is it useful to consider in such depth the cause of health outcomes? Why is it particularly important for PCVs?

- Where along the Chain of Causes can a PCV be most helpful? Harmful?

- How effective were the game and flannel exercise as learning techniques for analyzing the story? Could they be used by health workers in the field?

Step 5 (10 min)
Preparing for the Role Play on the Utilization of Health Services

Give the preselected role players 10 minutes to finalize their preparations for the role play. While they are preparing, discuss with the rest of the group their role as observers.

Explain to participants that they will now be involved in a 20-minute role play that will examine factors that affect the utilization of health services and the PCV's role as one of several health care providers. Set the stage for the role play by describing the setting from Trainer Attachment 8D.

Trainer Note

Ask experienced Volunteers or language trainers to act as advisors to the persons preparing these roles. The role play activity should enable the observers as well as the role players to identify what they know about big-medical and traditional views concerning:

- role of the sick and attitudes about being sick
- role of the health practitioner
- relationship between practitioner and patient
- problems in relationship between the two systems
- possible ways the PCVs can work constructively within and between both systems

Advise the observers to keep these issues in mind during the role play and to be prepared to summarize what they observe in terms of these issues. You may want to summarize these points on newsprint for reference during the discussion of the role play.

Be sure the workers playing the Doctor, Traditional Healer, and PCV understand that their task is to convince the mother that the approach/system that they represent is best for her and her baby.

An alternative to conducting the role play is to hold a panel discussion, where different people on the panel present the position/orientation of one of the characters described in Trainer Attachment 8D (Role Play) and the panel and members of the audience discuss:

- factors which motivate people to seek out a certain type of health care approach
- the pros and cons of seeking treatment from either a traditional healer or medically trained practitioner
- ways in which these two systems could be mutually supportive of each other
- methods that could be used to help integrate various systems/approaches to health care delivery.

Step 6 (20 min)
Acting Out the Role Play

Have the players act out the role play.

Step 7 (20 min)
Problems in the Relationships Among Health Systems

First debrief the role players by asking them how they felt about their roles as well as the other characters in the role play. Then, based on the role play, the story of Ibrahim and personal experiences the participants have had, ask the group to draw some conclusions about the problems which exist among traditional and modern health systems and personal health beliefs. Facilitate this brief discussion around the following questions:

- What are local attitudes about sickness and their susceptibility to illness in this culture? (For example, if you were someday to get very seriously sick, what illness do you think it would be? What else?).

- What seem to be the major problems between seeking either traditional or modern health care?

- What barriers affect the utilization of health services?

- What is the potential role or responsibility of a traditional healer? A doctor or nurse? The PCV?

Step 8 (10 min)
Applying Their Knowledge to Their Future Role

Ask the participants to brainstorm a list of activities they can do to find out what factors affect the health and utilization of health services in a community.

Trainer Note

This discussion should be focused on what Volunteers can do in their community to understand and identify the reasons for and barriers to utilization of health services. This can be done by:

- Talking with various practitioners and health care directors about the types of clients they serve, where they come from, and what their backgrounds are.

- Observing where people go when they are ill.

- Examining patient records.

- Talking informally with patients and community members on how they define health, what they do when they are ill, what methods and treatment they prefer and why.

- Inquiring about their attitudes toward immunizations and other preventive health measures.

- Noticing any signs of traditional measures used as possible protection against diseases (e.g., amulets, charms, objects used to protect the household).

Trainer Attachment 8A : The story of Ibrahim

Consider Ibrahim, a 2 1/2-year-old boy who died of measles. Ibrahim lived with his family in the small village of Sagata, 11 km. by dirt road from the town of Kebemer, in Kebemer there is a health center staffed by a doctor and several nurses. The health center conducts an immunization program and has a Land Rover. But the immunization program only occasionally reaches nearby villages. One year the health team began to vaccinate in Sagata, but after giving the first vaccination of the series, they never returned. Perhaps they grew discouraged because many parents and children refused to cooperate. Also, the road to Sagata is very dusty and hot and during the rainy season is often washed out.

When the staff of the health center failed to return to Sagata, a health worker from the village went to Kebemer and offered to take the vaccine to the village and complete the vaccination series. He explained that he knew how to inject. But the doctor said no. He said that unless the vaccines were given by persons with formal training, it would be putting children's lives in danger.

Two years later, the boy Ibrahim became ill after returning from a long visit with relatives in M'Bake. Ibrahim had diarrhea and had lost a lot of weight in the past year. Ibrahim's father and relatives were peanut farmers whose crops were destroyed because of the drought. Food was scarce and very expensive and his family was too poor to buy much more than an occasional dried piece of fish and some rice. So Ibrahim went hungry and was becoming increasingly malnourished.

Ten days after his return to Sagata, Ibrahim had a fever. Within 24 hours he had a runny nose, cough, and his eyes were very red. On the fourth day after the onset of fever, his parents noticed a bumpy purple colored rash.

The village health worker at first called his illness Smallpox and suggested that Ibrahim's parents take him to the health center in Kebemer.

The family paid one of the taxi drivers who was vaccinated against smallpox to drive to Kebemer in his taxi. They had managed to borrow 500 Francs, but the driver charged them 300 for the trip. This was much higher than the usual price.

In Kebemer, the family waited for 2 hours in the waiting room of the health center. When it was finally their turn to see the doctor, he at once diagnosed the illness as measles. He explained that Ibrahim was dehydrated and needed to be treated with intravenous fluids for the diarrhea and malnourishment which were complicating his disease. He said that they would need to take Ibrahim to the capital city of Dakar, 200 km. away to be hospitalized.

The parents despaired. They had barely enough money left to pay the taxi fare to Dakar. If their son died, how would they get his body back to the family graveyard in Sagata.

So they thanked the doctor, paid his modest fee, and took the afternoon transport back to Sagata. Two weeks later, Ibrahim died.

(Adapted from : Werner and Bower. <u>Helping Health Workers Learn</u>. Chapter 26.)

Trainer Attachment 8B : But why ...?

To help the group recognize the complex chain of causes that led to the health outcome of Ibrahim and that affected the health of the community and his family, play the game "But Why ....?" Everyone tries to point out the different causes. Each time an answer is given, ask the question "But Why ....?" This way, everyone keeps looking for still other causes. If the group examines only one area of causes, the discussion leader nay need to go back to earlier questions, and rephrase them so that the group explores in new directions.

From the Story of Ibrahim, the "But Why .... ?" question game might develop like this:

Q: What caused Ibrahim's Illness?

A: Measles - the measles virus.

Q: But why did the measles virus attack Ibrahim and not someone else in his village?

A: Because he was exposed to the virus when visiting his relatives.

Q: But why did he get so sick?

A: Because he had diarrhea and was malnourished.

Q: But why was be malnourished?

A: Because there has been a bad drought and his father and relatives had no yield from their peanut crop to sell to pay for scarce and expensive food.

Q: Let us go back for a minute. What is another reason why the measles virus attacked Ibrahim and not someone else?

A: Because he was not vaccinated.

Q: But why was he not vaccinated?

A: Because his village was not well covered by the immunization team from the larger town.

Q: But why was the village not covered?

A: Because the villagers did not cooperate enough with the team when it came.

Q: But why did Ibrahim's parents not take kilo to Dakar?

A: They did not have enough money.

Q: Why not?

A: Because the bush taxi driver charged them so much to drive thee to Kebemer.

Q: Why did he do that?

A: A whole discussion can follow.

A: Because the driver needed the money to feed his children or buy his wives expensive material to make dresses for Ramadan.

Q: Buy why didn't they use the money to take Ibrahim to Dakar instead of beck to Sagata, their village, where he would die for sure?

A: Because they didn't believe the medicine would really save Ibrahim or they were convinced it was Allah's will that Ibrahim should die. (A whole discussion based on perceived susceptibility and benefits of treating Illness can develop.)

Q: But not all the children who get measles die. Why did Ibrahim die while others live?

A: Perhaps it was Allah's will.

Q: Buy why Ibrahim?

A: Because he had complications from diarrhea and poor nutrition.

Q: Why else?

A: Because the doctor in Kebemer could not treat him. He wanted to send Ibrahim to Dakar for treatment.

Q: But why?

A: Because he did not have the right medicine.

Q: Why not?

A: Because he did not receive ORS packets which he ordered two months ago and because I.V.'s are only done in the Capital City.

Q: But why?

A: A whole discussion can follow. This can pertain to poor planning at the local or national level for ordering and distribution of vaccine from the international drug companies or the cost of supplies, and the inability to maintain the cold chain.

(Adapted from : Werner and Bower. Helping Health Workers Learn. Chapter 26.)

Trainer Attachment 8C : The chain of causes

To help the participants get a better idea of the chain or network of causes leading to a certain health outcome and actual chain can be formed. Each time another cause is mentioned, a new link is added to the chain. Give each participant a few links then each time a new cause is mentioned everyone considers whether it is biological, physical, cultural, economic or political. Whoever has the right link for a particular cause adds that link to the chain.

The chains can be made from cardboard and each link can be colored differently to represent 5 kinds of causes. Symbol of Ibrahim, the family, and the community should be made in such a way that they reflect the cultural understanding of the society and the same goes for the symbol used for the grave.

The chain of causes (A)
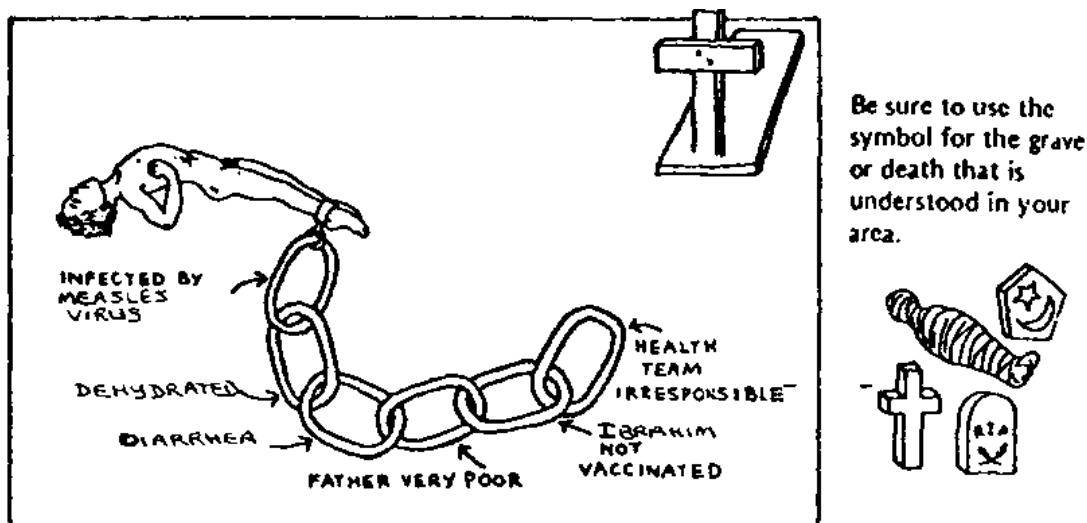
BIOLOGICAL (germs, worms etc.)

PHYSICAL (things)

CULT... (beha...

Make cuts so links can fit together.

ECONOMIC (money)

POLITICAL (power)

The chain of causes (B)

(Adapted from: Werner and Bower. <u>Helping Health Workers Learn</u>. Chapter 26.)

Trainer Attachment 8D: Roles and setting for role play on traditional and modern health systems

Setting

Mrs. X is sitting in the village by the well complaining about the terrible state of her child (who is on her back). Other women are consoling her about the probable death of the child. The doctor arrives for his monthly visit to the village. The traditional healer arrives to get water at the well and hears the woman complaining. The PCV also arrives to get water and hears the woman complaining. The doctor, the healer and the PCV each offer advice to the woman, trying to persuade her that their approach to health care is the one she should follow. The woman will decide which, if any, person's advice she will follow.

ROLES

Doctor

Your orientation is a Western bio-medical view of health care. You diagnose patients for physical problems and treat the problems. You maintain an objective and distant relationship with your patients, with no involvement in their personal lives. Your view is that you are the authority on who is sick and who is not. Illness to you is explainable in terms of biology. You provide the most modern treatment available. You give anti-malaria pills to children with fevers. You distrust traditional health practitioners and feel they should not be treating dehydration cases. You spend as little time as possible with your clients as you have many people to see. You feel that traditional healers should be prevented from practicing because they do more harm than good.

Traditional Healer

Your orientation is traditional medicine. You are part of the community of people who you serve. You feel that health and Illness are caused by social and spiritual forces as well as physical conditions. You recognize that there are some kinds of Illnesses that you cannot treat and you send them to the clinic, somewhat reluctantly, because people in the clinic treat you and your clients disrespectfully. You have a great deal of knowledge of local herbs, treatments for Illness including malaria. Your treatment for malaria is a herbal drink. You are a friend to your clients as well as a neighbor. You are always available to help them as long as they want. You are highly respected in the community.

Mother

You have a very sick child. The child has a fever for several days and is very sick. It is not passing urine, has no tears and is very hot. You have been withholding liquids and foods so it could get rid of the fever. The doctor is visiting the community to see who has health problems; the traditional healer is in the community as is the Peace Corps Volunteer. You must decide what type of health care to use to make your child well, or decide that there is no hope for your child to survive.

Peace Corps Volunteer

You have recently arrived in the community. You have just completed a Peace Corps training on malaria and you are eager to share what you have learned with the community because you know that malaria is a serious problem there. You know both the doctor who visits the village monthly and the traditional healer who lives in the village. You are concerned about the differences in their perspectives about health since you have to work with both of them. You are looking for ways to resolve some of these differences without making either or both angry with you. You see the fever as a situation where you may make some progress in resolving differences.

Module 3: Community analysis and involvement

Behavioral objectives

Session 9: Deciding what to learn about the community
Session 10: Methods for learning about the community
Session 11: Learning about the community
Session 12: Community analysis
Session 13: Survey and disease surveillance
Session 14: Working with the community
Session 15: Working as a counterpart

Behavioral objectives

By the end of the training, participants will be able to:

1. Plan and implement a local community investigation and analysis that includes:

- gathering information on at least two subsystems of the community using the KEEPHRAH Model as a basis

- use of at least three information-gathering techniques identified and practiced during Sessions 9 and 10, and

- group discussion of the relationship between the health subsystem and the other subsystems of the community.

2. Define the terms survey and surveillance as described in Session 13 and explain the types and usefulness of information that can be gathered by these two systems.

3. In a simulated problematic community situation, correctly describe at least three techniques to motivate community participation as discussed in Session 14.

4. Identify potential job-related and interpersonal problems associated with working as a counterpart, and develop a solution to at least one of those problems using a problem solving model.

Session 9: Deciding what to learn about the community

Handout 9A: The Keeprah holistic model
Handout 9B: A community diagnosis what you might learn about your community

TOTAL TIME: 2 hours

OVERVIEW

The success of a Volunteer's efforts depends on close collaboration with the community members in identifying needs, and implementing and evaluating projects. To establish such a collaboration, the Volunteer needs to have a respect for and understanding of the knowledge, practices, beliefs and conditions of members of his or her community. In this session participants identify types of information they need to learn about the community and list methods of gathering that information using the KEEPRAH model of community analysis. Sessions 9 through 12 are a sequence of activities designed to give pre-service trainees experience in gathering and analyzing information about their communities. If at all possible, this sequence should be coordinated with core curriculum and language training components.

OBJECTIVES

• To define the term "community" (Step 1)

• To identify major areas of information that health workers need to learn about the communities in which they will work. (Steps 1, 2)

• To list at least three techniques for gathering information in the community. (Steps 3, 4)

• To make a plan for investigating at least two subsystems in the local community. (Steps 3, 4)

RESOURCES

- <u>Community Culture and Care</u>, Chapters 1 and 2
- <u>Bridging the Gap</u>, pp. 34-35
- <u>Helping Health Workers Learn</u>, Chapter 6
- "Working With the Community" (CDC/CCCD Module)

Handouts:

- 9A The KEEPRAH Holistic Model
- 9B A Community Diagnosis: What You Might Learn About Your Community

MATERIALS

Newsprint, markers, colored pens, notepaper.

PROCEDURE

Step 1 (25 min)
What is a Community?

Open the session by giving the group a brief overview of the series of activities they will be involved in during Sessions 9,10,11 and 12.

Ask someone in the group to volunteer to give a brief description of their community back home. Encourage the group to ask the volunteer questions that will help them become acquainted with various aspects of the volunteer's community.

After a few minutes, tell participants to consider all of the aspects that make up the community described above, as well as their own hometowns or neighborhoods. Ask them to define the term "community" and write their definition on newsprint; beside it, have them generate a list of parts or sub-systems which make up the community.

When they have completed the list, ask them to briefly discuss how their individual communities may vary from this norm.

Trainer Note

Make colored markers and newsprint available to the volunteer who describes his or her community. Encourage the group to ask the volunteer questions about such aspects as how communication takes place and how decisions are made in the community.

Be careful not to let the group get "bogged down" in defining "community". The idea is

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to have a simple framework, i.e., definition and list of parts or subsystems with which to work. During the discussion, point out to participants that the term "community" can refer not only to a geographic grouping of people, but also to professional and social groupings (eg., a community of clinic workers, a community of PCVs, clubs, etc.).

Step 2 (20 min)
The KEEPRAH Model of Community Analysis

Distribute Handouts 9A (the KEEPRAH Holistic Model) and Handout 9B (A Community Diagnosis: What You Might Learn About the Community) and give the group a few minutes to look them over. Ask for questions on any aspect of the information.

Discuss the model and its application to Volunteer work by posing the following questions:

- How similar are the subsystems in the KEEPRAH model to those listed by the group?

- Are there any subsystems or aspects of the community which have been left out of the model or our list?

- How easy/difficult is it to find out what the resources, problems, patterns, and leadership are for a given subsystem (e.g., for education).

- How does the cross-cultural nature of our work affect our ability to identify resources, problems, etc?

- How do the subsystems interrelate and affect one another?

- How does the relationship among subsystems affect the health Volunteer's work in his or her village?

- What are some factors to consider in relation to the felt needs of an individual community member?

- How can we find out and verify people's perceived needs?

Trainer Note

The KEEPRAH Model is a widely accepted model for community analysis. It is particularly appropriate here as an introduction to general information-gathering in the community.

Step 3 (25 min)
Preparing for the Community Investigation

Explain to the participants that the next step in preparing for a community investigation is to plan out what information to gather and how to go about collecting it. Ask them to break down into work teams of three and mention that the triads will be together through the next day and a half.

Explain that each team will spend the following day in the local community investigating the subsystem health, as well as one or two other subsystems from the KEEPRAH model. Ask participants to select the subsystems they would like to investigate or assign them if the time is limited.

Have the teams work through the following task:

1. Decide and write on newsprint what you want to learn about your subsystems. Focus at least some of your investigation toward gathering information that will help you answer these two questions for your group during Session 12.

- What is the relationship between the non-health subsystem you selected and the health subsystem of this community? (For example: what is the relationship between the education subsystem and the health subsystem?)

- What do community members perceive as their primary development problems regarding health and the other subsystem you investigated.

2. List ways in which you plan to gather the information (how and where).

3. Select a reporter to inform the large group briefly of your plan during the next step.

Step 4 (30 min)
Reviewing the Community Investigation Plans

Reconvene the large group and ask each reporter to present the plans for the work teams. Post the newsprint plans around the room for easy reference. As each plan is presented, ask the others in the group to provide pertinent feedback and suggestions.

Explain to the group that the major focus in this session has been on what information will be collected. During the next session, they will look more closely at how to gather the data and effectively interact in the community.

Handout 9A: The Keeprah holistic model

The community analysis model which you will be working with assumes that you can break down a community, for purposes of analysis, into a series of segments, or subsystems.

Each segment, in the real world, interacts with the other to produce a continual movement and balance which keeps the community alive and moving. Change in one segment can affect another and vice versa intervention will do the same. For example, if you introduce improved pig-raising practices by penning up pigs and feeding them, rather than letting them forage for food (an economic intervention), you affect the community health be reducing pig-carried diseases.

Cutting across all segments of the community, you will find that there are common elements. These common elements are defined as:

A. Resources (human, natural and man-made)

B. Knowledge, Attitudes and Practices. What people know, how they feel about it and how they actually behave in relation to their knowledge and attitudes.

C. Problems. Problems are defined as the gap between what is and what should be (what "should be" is often defined culturally).

D. Patterns. Patterns exist which give clues about what is there and how persons perceive them. These patterns of behavior often constitute cultural meaning, as well as biological necessity.

E. Leadership. Among human resources, you will probably find that leadership exists in many of the sub-areas of the community.

The following model describes this approach to looking at the community.

THE KINSHIP SYSTEM. The family provides a means for adding new members to the society. It also provides an environment for the training and socialization of children. The kinship system relates to all aspects of the family or extended family including elements such as descent, family authority, location of residence, inheritance, moral values and marriage.

THE EDUCATION SYSTEM. All societies provide a means of transmitting information to young members. This prepares the individual to live and function within the society in an acceptable way and to do so with some degree of independence. Elements of the educational system include schools, teachers, family members, books, and materials.

THE ECONOMIC SYSTEM. Each society has a means of acquiring and distributing goods and services which sustain the lives of its members. Many roles and institutions operate to meet these needs. They include the population of working people, the different types of enterprises, means of payment or exchange, and ecology.

THE POLITICAL SYSTEM. All societies regulate themselves and their relations with others. This regulation provides protection for the whole group. The political system controls the competition for power within the society. Elements of the political system include public services and utilities, government institutions such as courts, police and legislative bodies.

THE RELIGIOUS SYSTEM. Every culture is built around basic beliefs and values which provide an understanding of human existence and place in the universe. These beliefs are often manifested in the form of rituals and organizations.

THE RECREATION SYSTEM. All societies provide a means for recreation and relaxation. This includes games, dancing, singing, sports, storytelling, artistic pursuits, drinking parties, and pastimes.

THE ASSOCIATIONAL SYSTEM. In every culture, people who have similar interests tend to group themselves together. These associations may be for recreational, political, economic, or other reasons. For what purposes are groups formed! Ho' many people belong to the different groups? Do they use symbols or slogans to identify themselves?

THE HEALTH SYSTEM. All societies are concerned about the survival of their members. Elements of the health system include nutrition, mother and child care, control of diseases, hospitals, medical personnel, and beliefs about health and its relation to medicine or the spirit world.

THE TRANSPORTATION AND COMMUNICATION SYSTEM. Every culture provides a means for people and goods to get from one place to another, and for information to be disseminated throughout the community. This includes postal service, bus system, roads, telephones, mass media and language.

(From: The Role of the Volunteer in Development. Core Curriculum, Peace Corps.)

Handout 9B: A community diagnosis what you might learn about your community

General Community Information

- Boundaries of community served, if known

- General physical features

- Socio-demographic information population, ages, sex, births, deaths, fertility rates, infant mortality rates, direction and causes of migration, other population changes

- Health-related history of the community

- Types of community groups and social classes, neighborhoods

- Ethnic groups, where they live, relations among groups

Family Life

- How families are organized in this culture, the roles played by various family members

- Conflicts and coalitions among family groups

- How health-related decisions are made in the family, who makes them

- Role the family plays in health care: at home, in the dispensary, in the hospital

- Family health beliefs and practices

- How health care can be adapted to the needs and desires of the family

Political Situation

- Pros and cons of political involvement by outside health workers

- Who the leaders are:

• In what areas of the community and on what topics do they assume leadership"

• Who makes decisions that influence health and health caret

- How the local government operates

- What responsibility various levels and departments of government have in health

- Who makes decisions in the health area

- Other departments that operate indirectly in health care

- What the political parties in the area are; their involvement in health care delivery

- Relationship of health programs with local leaders and government officials

• Changes needed in relationship
• Government priorities in health
• Possible program support from government
• Potential difficulties
• Arrangements necessary with government if program is likely to continue after you leave

- Impact of community factions on health programming

• Ways to relate to various groups

- Cultural variations in political orientation and possible program adaptions to accommodate these variations

• Orientation toward community development, community participation, authoritarianism, other types of political processes

Economic Situation

- Effect of standard of living on health and health care

- Employment picture: effects of unemployment and underemployment, physical handicaps, migration, Job hazards, etc. on health

- Economic barriers to health care utilization

• Payment problems and alternatives to cash payments

- General living conditions and financial means

• How it affects the ability to follow through on treatment plans and provide care for the sick at home

- Effects of lowered mortality rates on economy

- Effects of economic development on health

- Financial structure of the health care system and of the program

• Problems

- Problems of influence, bribery, and graft

The Education System(s)

- Basic information on education in the community

- Traditional education and patterns of learning

- Religious education

- Vocational training and apprenticeship

- formal institutions: public and private

- Health program activities of the schools: possibilities

- Teaching health education in schools

• Student customs affecting health teaching
• Adapting teaching to student needs

- Teaching in the health center and in the community

• Involvement of the community and local health workers
• Adapting teaching to community needs

- Process of change and how best to promote it through health education

<u>Religion</u>

- Major religious groups and leadership

• Beliefs and practices that affect health and health care

- Roles of religious leaders and followers in prevention, diagnosis and treatment of Illness

• Ritual and ceremonies affecting health

- Religious background of health workers and how it may affect their role as health corkers

- Relationship of religious leader and healers in health programs

• Possibilities for collaboration

<u>Communication</u>

- Patterns of communications in the community

• Who the important communicators are
• Where various types of communication take place

- Channels of communication that could be used in health programs

• Potential for using traditional channels of communication

- Methods for simplifying information

- Communication between staff and patients barriers

- Communication among health workers

- Cultural differences in communication patterns

• Taboo topics
• Non-verbal communication
• Confidentiality
• Displays of emotions
• Silence
• Styles of persuasion and explanation
• Eye and body contact

<u>Language</u>

- Languages spoken (% of health workers, patients and community speaking each language)

- Problems due to language differences

• Methods to bridge the gap

- Effects of language on perception and thought

• "World view" of different groups

- Use of interpreters in health programs

• Advantages and drawbacks
• Roles interpreters can play in programs
• Ways interpretation can influence communication
• Difficulties likely to arise during interpretations
• Ways to improve to process

<u>Health Conditions in the Community</u>

- State of the environment

• Hazards to health

- Prevalent diseases and conditions

• Cause, symptoms, means of prevention and cure

- Other health problems in the community

<u>Health Beliefs and Practices</u>

<u>Health and Illness</u>

- Meaning and value of health; priority of health in relation to other needs and vents

- Beliefs and practices concerning health maintenance and prevention of illness

- Beliefs and practices concerning hygiene

- Nays that living conditions and resources affect health

- Beliefs and practices concerning cause, prevention, diagnosis and treatment of common diseases

• Traditional views of disease
• Types of practitioners consulted
• Attitudes toward various diseases and those that have thee

- Beliefs and practices concerning mental Illness

• Division of diseases into mental and physical

- Beliefs and practices concerning cause, prevention, diagnosis and treatment of both Western and traditional mental Illnesses

• Community's attitudes toward mental Illness

- Death and dying: beliefs, practices and attitudes

• Possible program adaptations

Nutrition

- Foods available, cost, how used in the diet, special beliefs, rules, prejudices, taboos, etc. concerning food

- Foods used to treat disease or other conditions

- Food storage, preparation and preservation

- Maternal and child nutrition

• Foods eaten during pregnancy, lactation, infancy

- Problems in nutrition: obesity, undernutrition

- Ways in which changes in life styles have affected nutrition

Maternal and Child Care

- Prenatal care, beliefs and practices about pregnancy
- Beliefs and practices concerning childbirth
- Postnatal maternal and child care

Sexuality and Human Reproduction

- Beliefs and practices surrounding sex, circumcision, conception, etc.
- Family planning and birth control practices and attitudes
- Sexual modesty

Environmental Sanitation

- Water supply: sources, problems of contamination, improvements feasible?

- Disposal of human and non-human wastes

• Practices and attitudes concerning fecal elimination
• Possible improvements
• Housing and living conditions
• Health hazards and possible improvements

- Animal production and care; health hazards involved in current practices

- Pest control and health hazards caused by pests

Changing Health Beliefs and Practices

- Attitudes toward change

- Appropriate strategies for change

Health Systems in the Community

The Lay Health System

- The role of the sick

- Attitudes toward the sick

- Role of lay persons during Illness: who in the community treats, when, how, etc.

- Heath referral system in the community

The Traditional Health System (Indigenous)

- Types of traditional practitioners and services offered

• Methods used
• Types of payment

- Who the community practitioners are, location, facilities

- Organized systems of traditional care; systems of referral and/or cooperation

- Training

- Systems of hierarchy among practitioners, if any

- Attitudes of traditional practitioners toward "modern" system of medical care

- Utilization of the traditional systems by whom, when, why

The Modern Health System

- Types of modern practitioners and services offered; types of payment accepted

- Who the community goes to, location, facilities

- System of hierarchy if any systems of referral or cooperation

- Who uses this system, why

Patient/Practitioner Relationships Within Various Systems

- Types of relationship that exist

• Cultural expectations of patients

- Possible adaptations of modern care, taking into account expectations of patients who are used to the traditional system of care

Interaction Between Traditional and Modern Practitioners

- Types of interaction

- Areas of conflict

- Possibilities for cooperation and collaboration

Structure of Projected Health Project

- Objectives of program
- Types of staff, lines of authority, relations among staff
- Arrangement of various services, program divisions
- Staff/community relations: problems and possibilities
- Relations with sponsoring organizations

Health Resources in the Community

- Economic resources available for health and health programs
- Community organizations and their possible contribution to a health program
- Community leadership, government and possible support
- Community involvement
- Use of community volunteers - attitudes toward volunteering
- Environmental resources available for health and health programs

(From : Brownlee & Tilford, The Health Education Process, Draft Paper)

Session 10: Methods for learning about the community

Handout 10A: Four types of interview questions
Handout 10B: Suggestions for gathering information
Handout 10C: Types and sources of information on the community

Trainer Attachment 10A: Role play #1: The PCV and a local mother
Trainer Attachment 10B: Role play #2: The PCV and the town elder
Trainer Attachment 10C: Appropriate and inappropriate techniques for informal interviewing

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TOTAL TIME: 2 hours

OVERVIEW

In addition to knowing what categories of information they need to learn about the community and ways of collecting that information, participants also need to develop skills in gathering information that they will continue to use throughout their work as Peace Corps Volunteers. In this session, participants observe and act in two role plays. Through these role plays, they practice their observation, listening, and interviewing skills, and examine cross-cultural considerations for gathering information. By the end of the session, the group has a firm set of guidelines to follow during the subsequent visit to the local community.

OBJECTIVES

• To practice observation, listening, and inter viewing skills for gathering information. (Steps 1-3, 6)

• To identify appropriate and inappropriate behaviors or techniques used for gathering information in two role play situations. (Steps 3-5)

• To develop a set of guidelines for effective interviewing that is appropriate for the local community. (Step 5)

• To list other kinds of information-gathering techniques and tools for potential use in the future. (Step 6)

RESOURCES

Community, Culture and Care, Chapter 1

Handouts:

- 10A Four Types of Interview Questions
- 10B Suggestions for Gathering Information
- 10C Types and Sources of Information on the Community

Trainer Attachments:

- 10A Role Play #1: PCV and Local Mother
- 10B Role Play #2: PCV and Town Elder
- 10C Appropriate & Inappropriate Techniques for Informal Interviewing

MATERIALS

Newsprint, markers, props for role play

PROCEDURE

Trainer Note

Prior to the session, prepare for the role play on informal interviewing (Steps 2-3) by asking a host country training staff person to play the role of a local mother. Provide the "mother" with her role description (Trainer Attachment 10A) and encourage her to include her own experience and ideas in acting out the role. Help the role players assemble appropriate props to make the scenario more life like. Also, ask for a volunteer from the group to play the part of the PCV, give him or her the role description, and again encourage creativity in acting out the role. Do not allow the two role players to plan out the action together. Instead, they should briefly think about their characters and act spontaneously in relation to what the other says and does. Emphasize to the PCV role player that the role is built around a Volunteer who has recently arrived in his or her community. Consequently the PCV will be far from the ideal image and will make many mistakes. As such, it is all right for the role player to make mistakes which the large group will discuss and learn from.

For the second role play which occurs in Step 6, elicit the help of another staff member to play the part of the town elder. Please note that the overall purpose of this second simulation is to point out several differences between formal and informal meetings and

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interviews.

Step 1 (10 min)
Making a List of Potential Techniques for Gathering Information

Open the session by having participants think back to the previous session and the plans they have developed for investigating the local community. Ask the group to make a master list of all the techniques or methods for gaining information they have mentioned in their plans. Explain that the purpose of this session is to explore observation, listening, and interviewing as separate and interrelated skills which all development workers need to practice in order to carry out effective community analysis. Demonstrate the importance of these three skills by underlining each item on their brainstormed list that involves observing, listening, or interviewing. Mention to the group that other methods of information-gathering will be treated during later sessions.

Step 2 (5 min)
Introducing a Role Play in Informal Interviewing

Explain to the group that they will now observe a role play illustrating an informal interview between a mother in the local community and a Peace Corps Volunteer who recently started his or her two year assignment there.

While the two role players are setting up, de scribe the scene for the group and explain their tasks as observers:

- Everyone tries to identify effective and non effective behaviors and techniques used by the PCV while interviewing the mother.

- Each participant is also assigned one of the following - observation, listening, or cross cultural concerns - as a specific area to focus on during the action.

Trainer Note

The role play is designed to accomplish two goals. First, it provides the group with an example of interviewing that includes some appropriate and some inappropriate elements. All participants should try to identify these elements as they watch the action. Secondly, it helps participants become more aware of what they can learn from observation and listening, and how the cross-cultural nature of their situation affects communication. This can be accomplished by asking participants to count off one, two, and three: All the "ones" are asked to concentrate on using their observation skills to watch the action and note what the PCV is or is not learning with his or her eyes. All the "twos" are asked to focus on listening to the verbal messages being sent back and forth between the players and the meanings behind those messages. All the "threes" are assigned the task of paying attention to any aspects of the interview which are particularly interesting or difficult because of the interaction between two cultures.

Step 3 (15 min)
Acting Out the Role Play

Have the two actors do the role play of the informal interviews.

Step 4 (20 min)
Processing the Role Play

First, debrief the role players by asking them to discuss how they felt regarding the information they learned about each other and/or the community, and the difficulties they encountered gathering that information. Ask the large group to analyze the role play using the following questions to promote discussion:

General:

- What happened during the role play?
- What did the PCV learn about the mother and her community? What did the mother learn about the PCV?

For the Observation Group:

- What did the PCV learn primarily through observing the woman and her surroundings?
- What did the PCV miss observing that could have provided more information and insight?

For the Listening Group:

- What did the PCV learn primarily through listening to the mother?

- What did the PCV miss hearing that might have provided more information and greater understanding?

- What are some less obvious things we can try to listen for to gain more information? (e.g., the variation in kind and degree of emotion in someone's voice when discussing different topics, use of proverbs and idiomatic phrases for saying something indirectly, use of repetition, etc.)

For the cross-cultural group:

- What were some specific cross-cultural moments during the interview? Which moments did the PCV handle well? Which moments were difficult for the PCV and mother and what could the PCV have done to improve communication?

- Did the PCV use open, direct, forced-choice, and/or leading questions? What kinds of answers do these four kinds of questions elicit? How can we use them more effectively?

As the group identifies appropriate and inappropriate behaviors exhibited by the PCV during the role play, write them on newsprint, (one sheet for the "good" behavior, another for the "not so good".).

Trainer Note

See Trainer Attachment 10C for a list of appropriate and inappropriate techniques for informal interviewing.

If participants have trouble understanding the use of the four types of interview questions, distribute Handout 10A (Four Types of Interview Questions) and have them work through the exercise included at the end. Be sure they have a good grasp on formulating appropriate questions before their field practice in the next session.

Step 5 (15 min)
Guidelines for Effective Interviewing

Ask participants to work down the newsprint list of inappropriate behaviors, giving suggestions for how they could change those into appropriate behaviors. Have a member of the group add these to the newsprint list of appropriate techniques.

Have the group look at the entire list of appropriate techniques from the role play. Ask them to use this list to develop a set of guidelines for conducting informal interviews in their communities.

After they list their guidelines for how to interview, ask participants to discuss the manner in which they decide who to interview. (see Trainer Note).

Trainer Note

In deciding who to interview, the PCV can do the following:

1) Identify the subgroup(s) of the community that may have the needed information.

2) Talk with people both inside and outside of these subgroups and elicit names of members who are knowledgeable about the interview topic.

3) Meet with these members, explaining that they have been identified as knowledgeable in the topic.

4) Conduct the interview asking at the end, "Who else should I talk to about this?".

5) Repeat Steps 3 and 4 until the list of names are mentioned repeatedly.

Step 6 (30 min)
Role Playing a More Formal Situation

Ask the group to examine how their interview guidelines might be modified for more formal situations such as an interview with the town elder or village chief. Have the group role-play another interview situation, this time between a PCV and the town elder. Give a volunteer from the group a role description for the part of the PCV. Allow a few minutes foe the preparation. Meanwhile, introduce the staff member who will play the role of the elder and set the scene for the group. Have the role play (approximately 10 minutes), debrief the players themselves, and then ask participants to discuss:

- the differences in technique/approach between the informal and more formal interviews

- how interviews with mothers, clinic health workers, merchants, and village elders might vary in style and in the kind of information which may be learned

- the potential use of the other kinds of information-gathering techniques that were mentioned in Step 1 (e.g., random survey, systematic observation, indexing, reading signs/maps/posters, looking at health records, etc.)

Step 7 (15 min)
Reviewing Plans for the Community Investigation

Distribute Handouts 10B (Suggestions for Gathering Information) and 10C (Types and Sources of Information on the Community), and tell participants to use them for supplemental information and ideas. Also suggest that they read through Chapter 1 of <u>Community, Culture and Care</u>. Have the work teams (from Session 9) assemble and look over their plans for the community investigation. Ask them to use the rest of the hour to incorporate into their plan any new ideas and information gained from this session.

Trainer Note

An optional activity for the end of this session is to have participants break into triads and practice interviewing each other. Have them exchange the roles of interviewer, interviewee, and observer until everyone has had an opportunity to play all three.

Handout 10A: Four types of interview questions

Interviewing uses questions and comments to encourage people to supply information. Careful choice must be made of the words used because words influence how a person answers. As an example, let us say that through general interviewing, you have found that many people feel the town needs a new market. A specific interview would aim to find out what problems there are with the present market; the action that has already been taken; ideas for improving the market; the contributions people are willing to make to solve the problems, and so forth. There are four types of questions which could be used to gain specific information about the problem:

- direct question
- leading question
- forced-choice question
- open question or comment

Some of these question types are better than others as illustrated below.

• "Does our village need a new market?"

This is a <u>simple direct question</u> that could be answered with a simple "yes" or "no". But starting an interview with this type of question may bring problems. First the person may try to guess the opinion of the interviewer or the village leaders and answer in the way he feels he is supposed to answer, not the way he really feels.

Secondly, this type of question does not give room for discussion. An answer of "yes" or "no" does not show the full range of feelings and opinions a person has about the subject. A person may answer "yes" but in fact feel that the market is not the most important problem in the village at that moment. A direct question will not encourage him to express that opinion.

It is best to save direct questions for later on in the interview. After the person has begun sharing his opinions freely, a direct question can then be used to help clarify points.

• "Don't you feel our village needs a new market?.

This is a <u>leading question</u> because it leads a person to give only one answer. People easily say "yes" to such a question. When questions that start like this:

Don't you think..." "Isn't it true..." "Wouldn't you believe...." "Shouldn't you have ...." they make people give one-sided answers. They are <u>dangerous</u> to use in interviews because interviewees will almost always agree and rarely reveal their true opinion.

• "Should our village have a new market this year or next year?"

This is a <u>forced-choice question</u>. It gives the interviewee a choice of only two answers "this year" or "next year". The person being interviewed is almost certain to make one of the choices, although he may have a completely different opinion. He may really want to say "in five years" or even "never".

• "Please tell me your views about our market."

This is an approach that leads to <u>open comments</u>. Such a statement allows the person you are interviewing to answer freely. Listen carefully so that the person will be encouraged to express himself fully.

After the person has expressed his ideas, you might say, "That is interesting. Could you tell me more?. You might also use <u>direct questions</u> now that the person has felt free to talk.

<u>Exercise</u>

Suppose you were interviewing a mother about her sick child. You observe that the child is quite small for its age, so you want to find out more about his diet. Here are some <u>sample questions and statements</u> that might start off an interview with the mother. Put an X in the column you consider appropriate: Questions' that should never be used; Questions that may be used at the beginning of the interview; and those that may be used <u>later</u> in the interview.

<div align="center">

Use of question
Never to start later

</div>

1. Does the baby eat fruit?...................................

2. Welcome to the clinic...................................

3. How many times a day does the baby eat?...................................

4. Don't you give the child eggs?...................................

5. Please tell me about the child's favourite foods...................................

6. Do you give cereal, eggs or bread for breakfast?...................................

7. Shouldn't this child be eating more beans?...................................

8. Let us discuss your child's feeding habits so both of us can learn how best to keep him healthy...................................

9. Are there any foods the child refuses?...................................

10. Please tell me about any problems you may have in feeding this child...................................

11. Does the child eat most in the morning or afternoon?...................................

12. Wouldn't it be better if this child could eat more meat?...................................

(Adapted from: Brieger, W.R., "Defining the Potential for Participation".)

Handout 10B: Suggestions for gathering information

There are no set rules or one 'right' approach for gathering needed information in a community. However, several people-centered programs have come up with the following ideas:

1. Go to people's homes and get to know them. But **do not start by taking a survey**. Information learned through friendly, casual visits is often truer and more useful. Put the needs and feelings of the people first.

Scheme
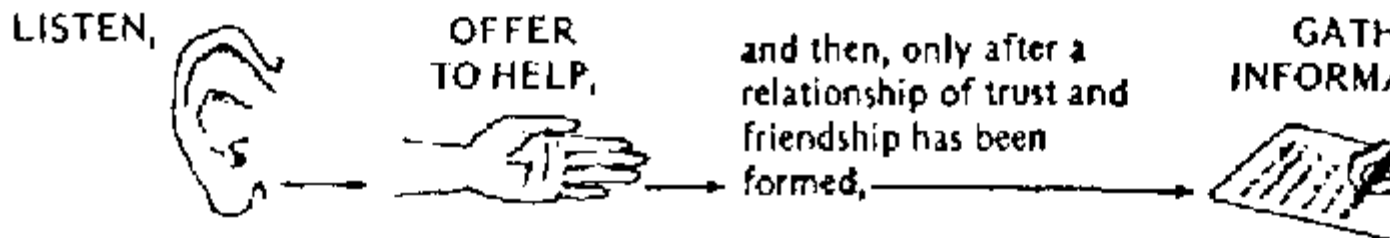
2. When gathering information, try to **find out what problems people feel are most important** or want to solve first. **Learn what ideas they have** for solving them.

3. **Ask only for information that makes sense** (and not simply because you were told to collect it). Be sure you and the people understand **why** the information is needed. For example, be sure parents understand why you weigh children **before** you do it.

4. **Involve local people in gathering the information**. Be sure studies are not of the people, but by the people. (For simple surveys in which children and non-literate people can take part, see p. **7**-13 and Chapters 24 and 25.)

5. When conducting a survey or community diagnosis, **try to avoid taking along written questionnaires**. Avoid writing notes while a person is talking to you. Listen carefully, remember what you can, and **write your notes later**. Always be honest and open about the purpose of your visit.

6. Look for ways of making the survey a learning, exploring experience for those being questioned. Try to ask questions that not only seek information, but that also get people thinking and looking at things in new ways.

For example, instead of simply asking, "How many people in your family can read?" follow up by asking, "What good is it to know how to read and write?" "Does the school here teach your children what they most need to know?" "If not, who does?" (For more ideas about this type of question, see *Where There is No Doctor*, p. w10 and w11.)

7. Observe people carefully. You can find out as much by watching the way people act and do things as you can by asking questions. Learn to look and listen.

8. **Go slowly when giving people advice**, especially when it concerns their attitudes and habits. It is often better to tell a story about how others solved a similar problem by trying a new way. And **set a good example yourself**.

Note: Where official records of births and deaths are fairly accurate, these can also provide important health information without bothering people in their homes. It is a good idea to compare the *deaths in children under five* with *total deaths.* For example, in one area of the Philippines, a rise in children's deaths from 35% to 70% of total deaths between 1975 and 1980 shows that conditions affecting health are getting worse!

(From: Werner and Bower. Helping Health Workers Learn, Chapter 6, p. 9)

Handout 10C: Types and sources of information on the community

TYPES	**SOURCE**
ON THE COMMUNITY	
Attitudes and customs relating to matters other than health, e.g., communication between leaders and people.	Listening to and talking with people in the community. Reading material, if available. Talking with other health and development workers. Talking with teachers and religious

Who are the leaders in the community? Who makes decisions and how are decisions made? Are there traditional health workers such as birth attendants, healers, a medicine-man? Other health and health-related agencies.	leaders.
Geographical features Transport facilities Public facilities: water, sanitation, market, school, farming, food production. Source of water.	Map of area

TO IDENTIFY PEOPLE

Name, age, sex, address	Registration cards Health Centre records Community survey.

ON PEOPLE'S HEALTH

Kinds of health problems and when problems occurred.	Monthly reports Outpatients records
Number of expectant mothers attending antenatal clinics.	Clinic records
Number of births each month or each year (live and stillbirths) and sex.	Clinic records or survey of children under one year in the community.
Number of mothers who die from childbirth in past year.	Clinic records or direct questioning in the villages.
Number of deaths by sex, age, and presumed cause.	Possibly, health centre records or through community officials.

ON HEALTH WORK BEING DONE

Number of people seen each month	Monthly report
and why.	
Treatment given, kinds of health problems.	

Special campaigns held.	
ON MATERIALS USED FOR HEALTH WORK	
Drugs supplied.	
Drugs used.	Stock ledger and inventory.
Other supplies.	
Estimate of supplies needed for a period of time.	
ON THE PROGRAM AND ON OTHER HEALTH WORKERS UNDER SUPERVISION	
Program: What people feel they need acceptance of programs other program needs coordination with other agencies.	Listening to the community, particularly the leaders. Talking with other community development workers. Supervisor.
Health Workers: Needs for training quality of work planning relations with community and other agencies for use of resources.	Supervisory checklist for visits to the community.

(From: WHO, On Being in Charge.)

Trainer Attachment 10A: Role play #1: The PCV and a local mother

Scenario

A PCV has recently arrived in his or her community or small town to begin work in a primary health care program. The Volunteer vents to begin getting to know people in the area and needs to start gathering information regarding a number of aspects of community life. Today, the PCV has arranged an interview with a mother to gain baseline information on the local diet and nutritional practices and needs of the community. They have decided to meet at the woman's house sometime around mid-morning.

Role Description

Peace Corps Volunteer

You have recently arrived in your site and are anxious to get to know the people in your community so you can get started on some projects. You've taken out some of your notes

from training on community analysis and the KEEPRAH model. From those notes you have planned some questions and topics to discuss with a mother in your community; specifically, you want to find out information on the local diet, as well as nutritional needs and practices perceived by her. You don't know the mother very well at all -- one of the nurses from the local clinic introduced you briefly last week. You do know that she has been to the clinic for some kind of treatment or advice, that she has several children and a husband, and that she lives on the poorer side of town. You are scheduled to meet with her midmorning at her house.

Mother

You are a typical mother in your small town. You have five children who often get sick. Your husband is a blacksmith's assistant with regular work, but meager pay. Lately, you've had some extra financial needs and the money left over to buy food has been inadequate. Like your friends, you've noticed the climbing prices of food in the market due to the recent drought. These days you're definitely finding it tough to keep your family's stomachs full, nevertheless you still take pride in befog able to cook the traditional dishes of your people. You also keep your tiny house very clean.

Today you are in your house waiting for the arrival of a new American who just moved to your town. It's mid-morning and you are busy trying to finish the noonday meal early so you won't be too occupied with chores while he or she is there. You plan to ask him or her to stay and eat with your family and, in fact, you've prepared something special just for him or her. You are curious to see who this American is and what she is doing. As is customary in your culture, you usually answer or respond to people with indirect statements and use many gestures and nonverbal cues.

Trainer Note

Adapt these brief role descriptions to fit your particular cultural situation, or if possible, ask the role players to make up a similar character based on someone they know. Ask the role players not to interact beforehand. Be sure you read or tell the group the scenario as described above or as modified by you.

Trainer Attachment 10B: Role play #2: The PCV and the town elder

Scenario

Same as for Role Play #1 except that this time the PCV will interview the town elder at the main community meeting hall in the center of town.

Role Descriptions

Peace Corps Volunteer

You are recently arrived at your site and are anxious to get to know the people in your community so you can begin working on some projects. In particular, you are interested in gathering information on the local diet and nutritional status and needs of your

community. You have an opportunity to meet briefly with the village elder and talk about the nutritional issues as well as other concerns. You have already met and spoken very briefly with him when your counterpart first brought you into town. He seems interested in your cork, but seems reserved.

Town Elder

You represent the local political system in the village and as such understand the economic structure and traditional systems that form the base for the community. You are very proud of your community and want to see it develop but not at the risk of losing the traditions that define your life and those of you neighbors. You have always maintained an aloof interest in the Peace Corps Volunteers. Today, the new volunteer in town will be coming in to conduct an interview.

Trainer Note

As in the first role play, adapt these roles to fit the local culture and the PCV's work description. Be sure to set this role play up such that it is more formal than the first.

Trainer Attachment 10C: Appropriate and inappropriate techniques for informal interviewing

__Appropriate__	__Inappropriate__
Properly greets the person, introduces self, asks if the person is free to talk, explaining the purpose of the interview.	Walks in without permission, no personal introduction, no explanation of the purpose of the visit.
Inquires about the interviewees personal wellbeing, family, etc.	Starts right into data collection - no real attempt to become acquainted.
Uses observation and listening skills to learn about the interviewee's life, family, and work (e.g. watching/helps in the preparation of a meal).	Talks a great deal, focuses directly on the interview topic rather than the surrounding circumstances.
Offers to participate in any activity that may be going on or starting up. (e.g., cooking, weeding the garden, etc.)	Holds strictly to the task of asking the interview questions.
Gives the interviewee time to talk, room to express ideas, opinions, shows interest in interviewee's problems.	Frequently interrupts when interviewee is speaking, appears hurried or disinterested, passes judgement on what

	interviewee says.
States questions in a clear manner. Uses open and factual questions appropriately. Restates questions when necessary. Only writes answers down if given permission.	Asks too many closed or leading questions, follows the list too closely, writes answers down while ignoring the interviewee
Doesn't stay too long or leave too abruptly - looks for signs that it's time to go.	Stays until all information has been obtained, asks questions quickly and runs.
Thanks the interviewee for his/her time and help, mentions possible visit in the future or when they might see each other again.	Collects notebook, gives cursory good bye and leaves.

(Adapted from: <u>From the Field</u>. World Education)

Session 11: Learning about the community

TOTAL TIME: 6 hours

OVERVIEW

Having planned what information they want to learn about the community as well as how to gather that information, participants now visit and conduct a simple investigation in a local community. Working in their teams of three, participants use assessment skills along with other skills and knowledge learned in language and cross-cultural training. During Session 12 they will share their experiences and analyze the information they gathered during the day.

OBJECTIVES

• To gather general information about the surrounding community and become acquainted with community members. (Step 1)

• To gather specific information in the community about health behavior and at least one of the other subsystems of the KEEPRAH model using plans developed during Session 9. (Step 1)

RESOURCES

Community investigation plans from Session 9.

MATERIALS

Paper, pen.

PROCEDURE

Step 1 (10 min)
Preparing to Conduct the Community Investigation

Ask the group for any last minute questions they might have before going out into the community. Explain to participants that within their work teams they should assume one of three roles - interviewer, observer, or listener as they interact with various community members. Ask the team members to rotate in these roles such that they each have an opportunity to experience all three roles. Ask participants to informally discuss their experiences in their work teams before Session 12.

> Post these points on newsprint in the room. Make markers and newsprint paper available to the work team; and encourage them to be creative.

Step 2 (6 hours)
Conducting the Field Visit

Wish the participants good luck and send them on their way.

Session 12: Community analysis

TOTAL TIME: 2 hours, 30 minutes

OVERVIEW

During the field visit in Session 11, the participants collected a variety of information about a community. In this session they share their experiences from the field, including what they learned, how they learned it and difficulties encountered in the process. They analyze this information in terms of its accuracy, completeness, and what it suggests about factors affecting the health of the people in the community.

OBJECTIVES

• To describe the difficulties encountered in gathering information about a community. (Steps 1, 2)

• To share information collected in the community and identify three to five potential development problems perceived by community members. (Steps 1, 2, 3)

• To con pare community-level and government-level perceptions of development problems. (Step 3)

RESOURCES

Community, Culture, and Care, Chaps. 1 and 2 Participants data collected in Session 11.

MATERIALS

Newsprint, markers

PROCEDURE

Step 1 (80 min)
Work Team Presentations of the Community Investigation

Open the session by asking participants to each describe his or her experience in the community with one descriptive adjective. Move in order around the room until everyone has given their one-word descriptions.

Have the work teams give their presentations of the community investigations. Allow time at the end of each presentation for comments, questions, and feedback regarding the presentation itself and the interpretation of the data collected.

Step 2 (30 min)
Drawing Conclusions About the Community and Its Development Status

Ask the group to consider all the community's development problems (especially health-related) that have been identified during the presentations, and list five major ones on newsprint. If possible, ask participants to prioritize the five problems as they think the community would do. Then ask the group to compare these problems or perceived needs with what they have learned thus far regarding the government's perception of the community's needs particularly in relation to primary health care.

Have the group identify any projects in the community that may already be addressing some of these areas of need. Finally, ask participants to briefly examine where among these problems the health Volunteer can be of the most help.

Step 3 (20 min)
Drawing Conclusions about the Process of Analyzing a Community

Now ask the participants to examine the process of community analysis. Have them reflect on their experience in the community and use these questions to guide the discussion:

- How well did the KEEPRAH model work as a tool for this investigation?

- How well did your team's strategy work for gathering information? How did it have to be modified?

- How well did your work team function together? How did you make decisions regarding who did what? How could you have worked better together? How can you apply this experience to gathering information with your counterpart?

- What are some specific factors which affect the attitudes of the community toward the PCV as well as the PCV's attitude toward the community? What are some things the PCV can do to overcome or diminish these limiting factors?

- What are some factors that influence the PCV's ability to gather, accurately interpret, and utilize the information on the community? (e.g., language, logistics, government approval, etc.) Again, how can some of these be overcame?

- What would be several rules-of-thumb to keep in mind when you first get to your site and begin learning about the community?

Trainer Note

If time allows, have a participant record the group's response to the last three questions and make this into a handout later for participants to take with them.

Be sure to keep the group focused on the process of community analysis rather than the content which has been sufficiently discussed in Step 2.

Step 4 (10 min)
Summary and Closure

End the session by drawing a link to Session 13, Survey and Surveillance. Explain to participants that they have now finished an initial, broad investigation of the community. During Session 13 they will work with a RAP survey (Knowledge, Attitudes, Practice), survey and conduct a more focused investigation of one specific aspect of health practice in the community (eg., how mothers treat children with acute diarrhea).

Session 13: Survey and disease surveillance

Handout 13A: Disease surveillance procedures
Handout 13B: Charting exercises

Trainer Attachment 13A: Defining survey and surveillance
Trainer Attachment 13B: Definition of rates
Trainer Attachment 13C: Survey methodology
Trainer Attachment 13D: Sample out-patient register

TOTAL TIME: 4 hours, 15 minutes

OVERVIEW

In Sessions 9-12, the participants learned about the need for and difficulty in obtaining and analyzing information about the community. The purpose of gathering this general information is to help the Volunteer have a better understanding concerning the way of life in the community and the problems people identify as being important to resolve. Later, as the participants begin their work in health programs, they may need specific health information concerning the knowledge, attitudes and practices of individuals in the community as well as information of disease trends in terms of person, place and time.

In this session participants are introduced to two methods of collecting disease specific information - survey and surveillance. They examine the functions of information collected through the use of each one.

OBJECTIVES

• To define the terms survey and disease surveillance. (Steps 2, 5)
• To discuss the steps involved in conducting a survey. (Step 3)
• To discuss KAP Surveys. (Step 4)
• To explain the six major steps in disease surveillance (Step 6-9)
• To design graphic presentations of collected data. (Step 9)

RESOURCES

Handout:

- 13A Disease Surveillance Procedures
- 13B Charting Exercises

Trainer Attachments:

- 13A Defining Survey and Surveillance
- 13B Definition of Rates
- 13C Survey Methodology
- 13D Sample Out Patient Register
- 13E Examples of Surveillance Forms
- 13F Visualization of Numerical Data
- 33A Trainer's Glossary (from Session 33)
- 38B KAP Household Questionnaire on Malaria (from Session 38)

MATERIALS

Pens, markers, newsprint, graph paper.

PROCEDURE

Step 1 (15 min)
Health Knowledge Assessment

Ask participants to reflect on the information related to health they collected during their community investigation (Session 11). Tell them to answer the following questions about the host country as best they can and record their answers on newsprint.

- What are the major causes of death and illness in children under five?

- What do community members believe to be the major causes of specific childhood illnesses?

- Do these diseases occur more frequently in certain areas of the country than in others?

- Do some of these diseases occur more often at a particular time of the year or in certain cycles?

- What types of treatment do children receive in the home or at the clinic for any of the diseases?

- Do family members know how to correctly treat children with fevers or diarrhea?

- How do community members learn about health measures used for the prevention and or treatment of childhood diseases?

After participants have pooled what they know about health and illness in the host country, ask them to discuss:

- What they think of the reliability and validity of their information?
- What basic information they need to design a health education project?
- How they can collect this information?

Trainer Note

Explain to the participants that reliability and validity are terms which have specific meanings. They are:

reliability - The degree to which the results obtained are repeatable using the same method

validity - The degree to which the information obtained actually reflects the truth one is trying to measure.

The following is an example you may choose to share: A method can give reliable (consistent findings) results which may not be valid (true measure). A single measure may be valid but may not be reliable if repeated measures vary.

Step 2 (15 min)
Defining Survey and Surveillance

Building on the participants comments regarding how they can collect the information they need, introduce and define the terms survey and surveillance (see Trainer Attachment 13A). Explain that the first half of the session deals with survey, the second half with disease surveillance.

Trainer Note

Have the definitions of survey and surveillance written on newsprint.

Step 3 (30 min)
Planning and Designing a Survey

Tell the participants that aside from conducting a general community survey, there are other types of surveys they may became involved in during their two years as Volunteers. These may include:

- Vaccination Coverage Surveys
- Program Review Surveys
- Prevalence Surveys
- Knowledge, Attitudes and Practice Surveys

Based on their work in Sessions 9-12, ask them to state four basic steps they think should be followed when designing and conducting any type of survey. List these steps on newsprint and discuss any steps that differ considerably from those listed in the Trainer Note below.

Tell participants that in their technical programs, they will most often be involved in conducting Knowledge, Attitudes and Practice (KAP) surveys which, as the name implies gathers information on the knowledge, attitudes, and practices of community members.

Distribute copies of the RAP Survey from Session 38 (Trainer Attachment 38B). Ask the participants to look at the questions and identify which questions will give them information concerning the community member's:

- Knowledge about the causes, signs and ways to treat malaria
- Attitudes about the importance of treating or preventing malaria
- Practices concerning how they treat the disease.

Have the group briefly discuss and give examples of how the information they gather from the KAP survey, will help them design effective health education projects on malaria.

Trainer Note

The following are the four basic steps to follow when designing and conducting a survey:

- <u>Determining the kind of information you need</u>, how it will be used and the resources from which it will come.

- <u>Select a technique or approach</u> for collecting the information (i.e., formal questionnaire, observation, review of clinic records).

- <u>Collect the information</u> (i.e., select a representative sample, identify cases).

- <u>Report on and use the information collected</u>.

At this time you might choose to explain the information found in Trainer Attachment 13C (Survey Methodology).

Step 4 (25 min)
Assessing Survey Techniques

To help the participants understand the difficulty in obtaining valid information when conducting a survey, do the following brief activity: Describe three or four interview scenarios using the example in the Trainer Note below. For each scenario ask a participant to be the interviewee and respond to your survey question. Ask the group what it is about the questions and circumstances of the different scenarios that affect their responses, and, in turn, how their response affects the validity and reliability of the information obtained.

Close the discussion by asking participants to identify the main points to consider when developing and conducting a KAP survey.

Trainer Note

Prior to this step develop, or select, from Trainer Attachment 38B, three or four questions

that pertain to gathering information on the health related knowledge, attitudes and practices of the <u>participants</u>. Develop a scenario for each question which pointedly shows how the interviewee's answer is affected by:

- how the question was asked (e.g., leading question, threatening manner)
- who asked the question (e.g., close friend, stranger, authority figure)
- where the question was asked (e.g., in private, amongst a group of friends or family members).

Following the interview scenarios, be sure the group discusses these important considerations for adapting and using KAP Surveys:

- Sequencing of Questions

- Types of questions used (simple, culturally sensitive)

- Relationship between the interviewer and interviewee (e.g., are they from different tribes/countries; personal friends; relatives)

- Manner in which the question is asked (threatening, authoritative, friendly)

- Environment (private setting, crowded household)

- Nature of the information asked (e.g., questions that ask about practices considered taboo or against the tenets of one's faith, questions relating to moral issues.)

10 Minute Break

Step 5 (20 min)
Disease Surveillance

Introduce this step by telling participants that the KAP survey they have just studied may be used as one method of surveillance. The baseline information collected in an initial KAP survey can be compared to a later KAP survey to assess the status of the project's interventions.

Tell them that another surveillance method is routine disease surveillance which yields information on <u>cases</u> of disease, <u>deaths</u> and their <u>characteristics</u>.

Distribute Handout 13A (Disease Surveillance Procedures). To help participants understand how routine surveillance works, use the disease specific information and rates you collected from the MOH and/or local health center to explain the following:

- what data is collected (e.g., disease specific cases in terms of person, place and time)
- how data is collected (e.g., routine reporting, active surveillance, special studies, surveys)
- how it is analyzed (i.e., in terms of person, place and time)
- hew rates are determined (see Trainer Attachments 13B and 33A)

Explain to the group that a good way to understand the process of disease surveillance is to work through the steps using health center records. Tell them this is what they will be doing for the rest of this session.

Trainer Note

As the participants work through the surveillance procedures, identify which step in the procedure they are doing and have them review the information an the handout that pertains to that step.

Step 6 (15 min)
Identifying Cases

Distribute a sample record of an outpatient register form that you obtained from the MOH or use the one found in Trainer Attachment 13D. Using the register, have the participants discuss the purposes for collecting the information asked for on this form.

Trainer Note

The information on this sheet can be used to:

- identify approximate time of illness (date of clinic visit)
- identify outbreaks in one or several families (name of patient)
- identify the location of illness that can be used to assess clustering of disease (address)
- assess the impact of disease on a certain target population (age, sex)
- identify the disease and/or describe major symptoms (symptom/diagnosis)
- evaluate CDD and Malaria programs (treatment)
- identify success of preventive health programs or problems related to methods of treatment techniques (comments)

Explain that to find out about outbreaks of communicable diseases in remote areas, those who visit the health center can be asked about communicable diseases in their villages. However, tell the participants that these reports should not be counted as cases, because they have not been seen and diagnosed by health workers. These reports should be used to provide health workers with information about hard to reach areas so that they can better serve the people living there.

Step 7 (20 min)
Counting Reported Cases

Distribute the weekly or monthly surveillance forms used in the host country or the forms found in Trainer Attachment 13E. Ask the participants to review these forms and to assess them in terms of the following questions:

- Is there information requested which cannot be accurately supplied? tare there obvious discrepancies in the form design such as overlapping brackets)

- Is there a greater level of detail requested than is likely to be used? (Can you identify items which are unlikely to be used in a subsequent analysis)

- Is there information that is needed but not requested on the form? (cases and deaths of certain diseases not mentioned, vaccination status, age?)

- Are there symbols used which are unnecessarily complicated or ambiguous?

- Are there standardized case definitions? (e.g., are acute and chronic diarrhea defined)

Based on the answers to these questions ask the participants what guidelines should be used in designing forms which will facilitate a health worker's job of recording and counting cases of disease.

Trainer Note

Generally, the disease forms should be:

- Self-Explanatory
- Contain only essential information needed for identifying cases and disease trends
- Easy to fill out
- Standardized

Step 8 (30 min)
Analyzing Data, Taking Action, and Reporting Promptly

Post the graphs and charts that you have adapted from Trainer Attachment 13F. Explain the function of each chart, graph or map and then have the group interpret the graphs and discuss how they are used in identifying disease trends.

Explain that disease trends are analyzed in terms of:

- person (for example trends related to age, sex, treatment given)

- place (e.g., urban and rural differences and geographical clustering)

- time (as in, annual and seasonal trends, e.g., measles, polio, whooping cough, diarrhea and malaria, are often more prevalent during same months or years than others).

Tell the participants that after analyzing their data, if they discover that an outbreak of a disease is occurring in a certain target group or geographic area, they must immediately investigate the problem to determine what is causing it (e.g., breakdown in cold chain, incorrect techniques for immunizing children, etc.), and take action to correct the situation.

The next step they must do is to promptly send their surveillance reports to the next higher level of the health system, using the standardized reporting forms.

Trainer Note

Examples of visual aids and questions that you may adapt for this step are found in

Trainer Attachment 13F. Ideally, you should obtain this material from the Health Ministry or at least base your examples an data that have been supplied to you by them. Use these examples to do the following:

• First, have the group look at what each of the graphs and charts are saying (i.e., the information they provide). For example:

- Reasons for the geographic clustering of diseases (for example, transmissible diseases like measles can be localized in certain villages; a contaminated water source would also result in clustering of diseases)

- How many cases there are

- When the cases are occurring (month, year)

- Who the cases are - age and sex groups

- Whether or not the pattern of cases is expected based on previous years

• Explain that, after reading the graphs and charts, but before taking the action which seems to be indicated, several points must still be considered, for example:

- Completeness of reports. Have the registers been completely reviewed to identify all cases diagnosed? Have all cases seen in outreach clinics been included? Have there been errors in recording data?

- For vaccine preventable diseases, the vaccination status of the children

- For diarrhea and malnutrition cases, the treatments given

- Whether or not the program has proven its effectiveness in reducing disease.

• When discussing the needs to promptly report data, point out the following:

- Delayed reports are of limited value in assessing the action that needs to be taken to prevent or control the spread of a disease.

- No clear picture of disease activity can be obtained if reports are delayed or not sent at all. If no cases are seen, a report to that effect must be made, otherwise, those responsible for collecting and analyzing surveillance information at the next level may believe that the report has simply been delayed.

10 Minute Break

Step 9 (50 min)
Monitoring Monthly and Yearly Totals

Recall for the participants that the sixth step in surveillance is that of monitoring monthly and yearly totals. One way of doing this is to prepare graphs and charts.

Distribute Handout 13B (Charting Exercises). Ask the participants to form three groups and develop a visual way of presenting the data described in their handout. Tell them to summarize the data in such a way that health center staff will be able to look at the information and use it to monitor disease patterns and determine how effective their activities have been in improving the health status of the targeted population.

After 30 minutes reconvene the large group and have each small group present their graphs, charts and maps. After the groups have made their presentations lead a discussion based on the following questions:

- How difficult was it to prepare the material?

- Can the visuals stand alone? (i.e., is information concerning titles, disease, location and dates recorded? Are the axes labeled?)

- How useful these techniques of displaying data are in terms of providing feedback to health personnel as to the effectiveness of their health program and identifying where there are problems.

Step 10 (15 min)
Summarizing the Session

Conclude the session by asking the group to briefly restate the 4 steps for conducting a survey, and the 6 steps in surveillance.

Have participants also discuss possible ways that they may be able to incorporate this information in their work.

Trainer Note

Depending on when this session is acne, participants may or may not be able to discuss hew the information presented in this session can be useful in their work as health educators. Therefore, you may need to tell them that over the course of 2 years they may be asked by health officials to participate in various types of surveys to determine the impact of CCCD projects, and to determine the knowledge, attitudes and practices of the local community before developing a health education project plan and related activities. Also, knowing the 6 steps in disease surveillance may help them to determine:

- what information they need for developing appropriate health education activities

- how they can find it and

- how they can use it to analyze and monitor their activities and the impact they are having on major diseases in the community.

Handout 13A: Disease surveillance procedures

Collecting and evaluating information relevant to the control of disease is called disease surveillance. Surveillance of diseases includes finding out about the cases of deaths from disease. Important information includes:

Person - who gets sick; who dies
Place - where people get sick; where they live
Time - when the illness begins

Analysis of surveillance data includes using this above-mentioned information and data on population (i.e., numbers of people in population exposed to disease) to calculate population-based rates and characterize seasonality and high risk groups.

The major steps in disease surveillance are;

1) Identify cases
2) Count reported cases
3) Analyze reported cases
4) Take action promptly
5) Report promptly
6) Monitor monthly and yearly totals.

The basic process to be carried out in each step is:

Step 1 - Identifying Cases

1) Review records of patients coming to health clinic for treatment.
2) Question people coming to the health center about diseases in their village.

Step 2 - Count Reported Cases

1) Identify diseases affecting the community.
2) Determine whether there are any parts of the geographic area served by the health center for which information appears to be incomplete.

Step 3 - Analyze Reported Cases

1) Review the reported cases to detect patterns of occurrence.
2) Reflect on what action may be necessary for reducing the number of serious illness and deaths caused by these diseases.

Step 4 - Take Action

1) Base decision of what action to take on the conclusions recorded from analysis of the case.
2) Plan corrective action to take including:

- Investigating an apparent increase in reported cases
- Determining if an actual outbreak is occurring

Step 5 - Report Promptly

1) Keep high levels of the health ministry or sector informed of disease trends as a particular section of the country.

2) Retain copies of all disease reports monitoring purposes.

Step 6 - Monitor Monthly and Yearly Totals

1) Provide up to date information on the occurrence of the disease.
2) Provide feedback as to the effectiveness of the programs on a month-to-month and year-to-year basis.

Handout 13B: Charting exercises

Exercise A:

Assume that you are on the health staff at HC-Ouaga. During May of 1985 the following number of measles cases in the target population were reported from each village and the town of Ouaga. There have been several measles immunization sessions in the town of Ouaga and in villages 1-3.

Village	Target Population	Cases	Village	Target Population	Cases
1	40	4	4	28	3
2	60	8	5	600	0
3	40	26	6	500	0
			Town of Ouaga	26000	1,040

1) Present this data in a graphic way such that health personnel can look at the information and determine where the cases seem to be most numerous ("clustered".), and identify where the immunization they have cane might not have been effective.

Exercise B:

The seasonal pattern of malaria occurrence in the town of Tarza for the years 1983-1985 is as follows:

Year	Month			
1983	January	February	March	April

	5	0	4	7
1984	0	6	6	12
1985	0	3	18	

1) Present this data in such a way that health personnel can identify if there is a seasonal pattern to the disease and/or if there might be some problem (e.g., delayed reporting, errors in diagnosis, etc.) that might explain this pattern.

Exercise C:

The number of diarrhea cases reported to the Health Center in Diourbel in 1984 was:

January	- 10	July	- 41
February	- 22	August	- 45
March	- 25	September	- 32
April	- 42	October	- 35
May	- 51	November	- 20
June	- 71	December	- 10

In 1985 the number of cases reported for the months of January March were

January	- 10
February	- 44
March	- 66

1) Develop a graph which can be used to quickly identify the difference in the cases of reported disease from 1984 to 1985.

Trainer Attachment 13A: Defining survey and surveillance

Survey can be defined as a method to gather data in a certain area or among a certain target population at a specific point in time Surveys serve several purposes:

- To identify the population's knowledge, attitudes and practices regarding a specific disease

- To obtain information about the disease status of individuals (e.g., nutritional improvement, diarrhea! disease control, immunization coverage)

- To provide baseline data for comparison after a specified period of time (e.g., 6 months, 1 year, 2 years), for the purpose of evaluating the specific interventions

- To estimate need for health services

- To have a better understanding of how to introduce or improve home management of certain diseases

- To justify and promote health extension services (e.g., fixed and outreach clinics).

Surveillance, is defined as the collection, interpretation and dissemination of health related information. Surveillance methods include routine disease reporting (passive); active surveillance (for more detailed information); and representative surveys.

Several important points about surveillance include:

- Surveillance is needed to help national policy makers establish priorities among diseases and can help identify the locally appropriate ages for immunizations.

- Routine reporting of target diseases can be used to measure program impact.

- Active Surveillance can be used to gather more detailed and complete information that will be useful for program evaluation.

- Surveys conducted at the beginning of a program provide baseline information on disease frequency that can later be used to evaluate how successful your primary health care activity has been.

- Data collected through ongoing surveillance systems, surveys and monitoring activities help identify areas that need to be stressed when conducting health education lessons or developing health messages and materials.

Trainer Attachment 13B: Definition of rates

Incidence Rate	- In surveillance feedback is a report that interprets the data collected and is distributed to those who have collected it. The number of new cases of a specified disease diagnosed or reported during a defined period of time as the numerator, and the number of persons in a stated population in which they occur as the denominator. A rate is the average risk of disease in that time interval.
Mortality rate	- A rate calculated in the same way as an incidence rate using as the numerator the number of deaths occurring in the population during the stated period of time.
Prevalence Rate	- The numerator is the number of persons sick or portraying a certain condition in a stated population, at a particular time, regardless of when that

	illness or condition began, the denominator is the number of persons in that population.

Trainer Attachment 13C: Survey methodology

The following guidelines outline the procedure to follow when using the cluster sampling technique in conducting a survey.

1. A list is prepared of all villages included in the area to be evaluated. This list should be prepared, in the first instance, from other sources than the vaccination team. Otherwise omissions in the list from the vaccination team will be repeated in the village list from the evaluation team. The population in each village is indicated, and a list of cumulative village populations is prepared.

2. In order to provide the necessary statistical reliability, it is necessary to have 30 "clusters" examined from the total area.* The particular villages in which the clusters are located are determined as follows:

*The statistical basis of cluster sampling is a complicated technical matter beyond the scope of this manual. Those who are particularly interested in the theory from which these procedures derive are referred to: 1) Cochran, W.C., Sampling Techniques, N.Y., John Wiley and Sons, 1963, pp. 74-75; and 2) Serfling, R.E., and Sherman, I.L., Attribute Sampling Methods, Washington, D.C., USPHS Publication No. 1230, 1965.)

(a) Line list the villages to obtain a cumulative population.

(b) The total population of all the villages in the area is divided by 30, giving a "sampling interval".

(c) A random number between 1 and the "sampling interval" is selected. This number identifies the first village on the cumulative village population list in which the first cluster will be located

(d) The "sampling interval" is then added to the random number selected in (b) above. This number identifies the first village of the second cluster to be assessed.

(e) The remaining clusters are identified by adding the sampling interval 28 times to the number used to identify the second cluster.

3. Each assessor is then given a list of those villages he is to assess.

4. When the assessor arrives in the village he selects a central location such as a market, mosque, church or intersection near the approximate geographical center of the village.

5. The assessor then selects a two digit random number between 10 and 49.

6. The tens digit indicates the directional line along which the initial household to be visited is located (i.e., 1 = North, 2 = East, 3 = South and 4 = West).

7. The units digit indicated the initial household to be visited (i.e., 1 = first household from the central location, 9 = ninth household from the central location, 0 = tenth household from the central location).

8. The assessor then proceeds to the initial household and asks to see <u>all children resident there who would be in the target ace group and collects the data</u>.

9. The assessor then proceeds to that household which is nearest the initial household, then to the household next nearest the initial household, and continues this process <u>until he has located seven children in each of the three age-groups</u>. It may be useful to think of this process as one of moving in increasingly larger concentric circles all having the initial household as their central point.

10. In that household where the seventh child in a particular age-group is located, the assessor may find other resident children in the same age-group. If so, those children are included and the assessor records their vaccination status.

11. When at least seven children in each age-group have been located, evaluation is finished in that cluster and the assessor moves to the next cluster.

12. When all the survey forms have been completed, the totals are used to complete the summary survey form, and the results are submitted to the programme supervisor so that they can be analysed and used in planning future activities.

(From: WHO EPI Supervisory Training Materials)

Trainer Attachment 13D: Sample out-patient register

Date	Name of Patient	Address	Age	Sex	Symptoms/ Diagnosis	Treatment	Comments

(From: CDC Draft CCCD Training Materials)

Trainer Attachment 13E: Examples of surveillance forms

<u>WEEKLY DIARRHOEAL DISEASE SURVEILLANCE REPORT</u>

H.C./Hospital: _____
Address: _____

Week No.: _____
Year No.: _____

Age	Vacc. Status	Sex	Cholera		Salmonella		Other Acute		Other Chronic	
			M1	M2	M1	M2	M1	M2	M1	M2
0 - 6 Months	+	M								
	+	F								
	-	M								
	-	F								
6 - 12 Months	+	M								
	+	F								
	-	M								
	-	F								
1 - 2 Years	+	M								
	+	F								
	-	M								
	-	F								
2 - 6 Years	+	M								
	+	F								
	-	M								
	-	F								
6 - 15 Years	+	M								
	+	F								

	-	M								
	-	F								
15 - 45 Years	+	M								
	+	F								
	-	M								
	-	F								
45+ Years	+	M								
	+	F								
	-	M								
	-	F								

M1 = Mortality
M2 = Morbidity

_____
(Signature)

_____
(Date)

MONTHLY EPI SURVEILLANCE REPORT

Health Facility: _____
Month:_____
Year:_____
City/Village _____

Illness	Age Group					
	0 -5 months	6 -8 months	9 - 11 months	12 - 23 months	24+ months	Total
Measles						
Pertussis						
Poliomyelitis						

Neonatal Tetanus						
Diphtheria						
Tuberculosis						

Health Facility: _____
Month:_____
Year:_____
City/Village _____

Illness	Age Group and Immunization Status									Total Cases
	0-11			1-4 years			5+ years			
	immun +	immun -	immun ?	immun +	immun -	immun ?	immun +	immun -	immun ?	
Measles										
Pertussis										
Poliomyelitis										
Neonatal tetanus*										
Diphtheria										
Tuberculosis										

* Immunization status of mother

Remarks:

Trainer Attachment 13F: Visualization of numerical data

To understand the significance of and reasons for collecting data, it must be interpreted

and presented in a form that is clearly understandable by the persons who will be using this data to determine:

- the program's effectiveness in achieving its objectives,
- to reevaluate goals
- to seek program support (monetary, staffing, etc.)

A useful way of presenting data is through a graph. A graph should be used to give an impression, indicate a trend or change or convey a sense of movement of the data.

The purpose of Step 8 in this session is for you to present and explain the different types of graphs that the participants should develop to analyze their data and later to monitor their programs performance. Based on your presentation, the participants will practice using these different graphic formats in Step 10.

Several types of formats that you should include in your presentation are a line graph, bar graph and map or area graph.

Explanations and examples of these formats have been appended to this attachment. Suggested discussion questions have also been included.

Regardless of the format all graphs must have a title that is clear and gives the name of the disease and the location and date of the event you are recording. Also the axes should be fabled. Time is often written on the horizontal axis and rates are written on the vertical line.

Line Graph

The line graph is a functional technique to employ when displaying the overall movement of numerical data over a definite period of time. Using thin format, large amounts of data can be presented in a single display - the flow of events over centuries can be visualized with as much clarity as events occurring within the past twelve months. The line graph is a format that can demonstrate the fluctuations, highs and lows, rapid or slow movements, or relative stability of statistics. In addition, the line graph is an excellent format to utilize when comparisons and relationships need to be communicated. Line graphs can incorporate two, three, four, or more scales to compare the same item in different time periods.

Measles Cases Reported to Health Center Coro, by Month, 1982
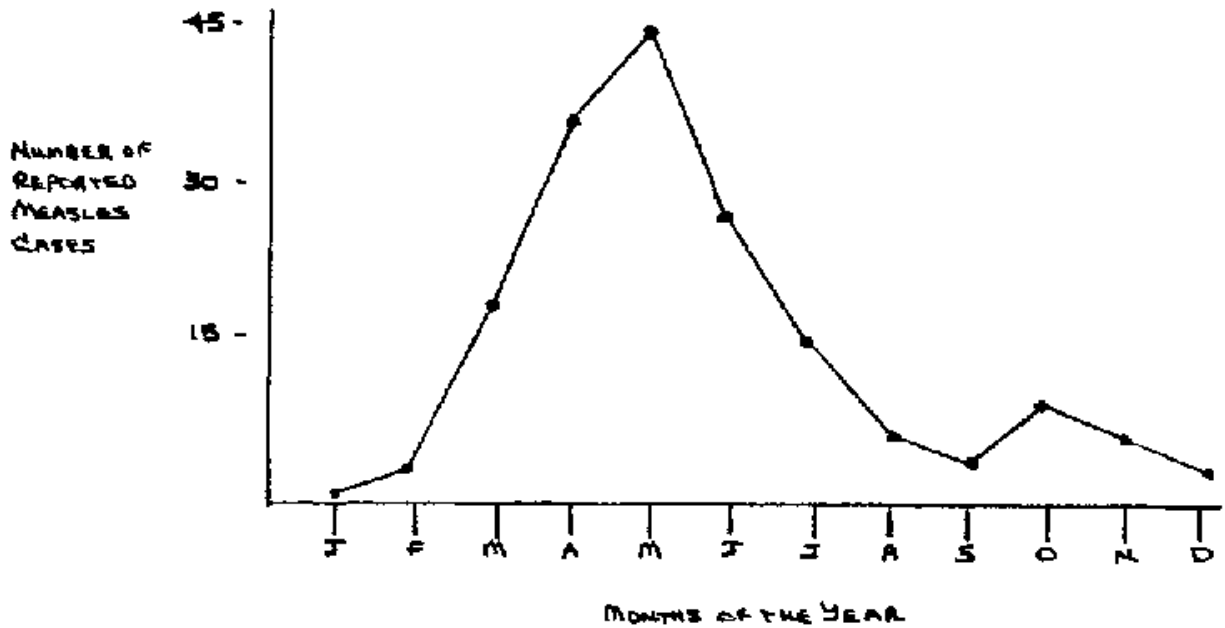
1. Ask the participants to identify which month has the most cases and which the fewest.

Bar Graph

The bar graph is one of the most convenient and widely used formats for displaying numerical data. The length of a bar corresponds to an item's value or amount. When a second bar is added, a comparison becomes possible. As more bars are added, more comparisons are possible.

There is a distinction between a horizontal bar graph and a vertical bar graph. The horizontal bar graph, with bars lined up horizontally, usually deals with different items compared during the same period of time. The horizontal bar graph is arranged so that items compared are listed on the vertical axis, and the quantity or amount scale is listed on the horizontal axis.

The vertical bar graph, deals with similar items compared at different periods of time. The vertical bar graph lists the amount scale on the vertical axis and time on the horizontal axis.

Immunizations Given in One Month at Health Center Mopti

Immunizations	Immunizations Given in One Month		
	Area	Number of Immunizations	
Measles	Region I	10	
	Region II		25
	Region III	5	
Polio	Region I	15	
	Region II		30
	Region III	10	
DPT	Region I	15	
	Region II		30
	Region III	10	
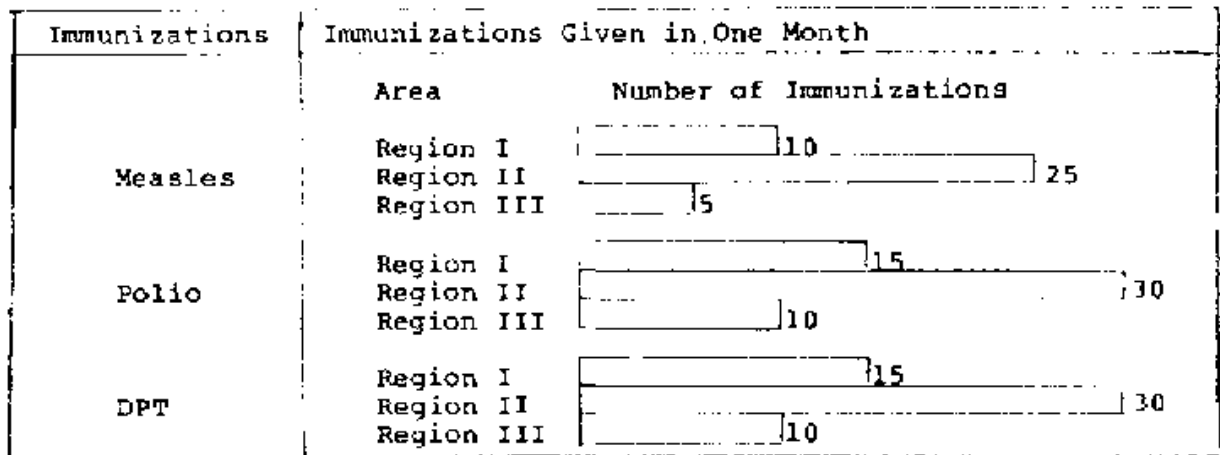
Key: Population Region I = 2000
      Population Region II = 5000
      Population Region III = 1000

1) What does this indicate about the vaccination coverage in each region?

Diarrhea Cases Reported to Health Center in Kaffrine by Sex and Age
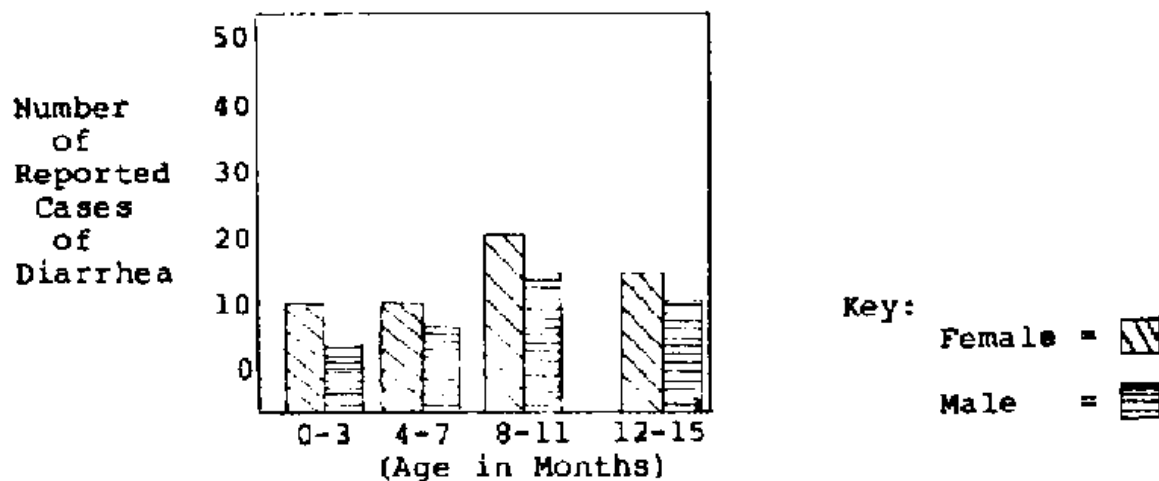
1) Is the total number of cases of diarrhea greater for females than males?
2) Does the graph indicate which group is at higher risk of diarrhea?

Map/Area Graph

Maps can serve as more than a conventional geographic reference' they offer a versatile and functional way of displaying numerical data.

The map graph sometimes falls in the pictorial graph category. If thought of in this sense, the map can be employed as a backdrop for data or as an integral part of the data. In either case, whether local, state, national or international in nature, the presence of a map suggests to the viewer a geographical frame of reference as in Figure 1.

In Figure 1 the map is employed to analyze information about place of occurrence of disease. The viewer can see area trends.

The area graph divides the whole into its parts. Concrete or abstract shapes can be employed.

<u>Analysis of Information about PLACE</u>.

Analysis of information about Place often requires mapping. Mapping shows where the households with cases are located in a village, or where the villages with cases are found in a region. To map, circle the location of the households or the villages which contain cases on a map of the village or region, and in the circle, write the number of cases. If a map is not already available, you might need to draw one yourself after studying the village or region. Attached is an example for measles use.

Measles cases by village April-May 1983

FIG 1

		Village	Population
▬▬▬	Major Highway	A	10 000
━ ━ ━	All Weather Road	B	2 000
+ + +	Non AllWeather Road	C	2 000
◯	Village	D	1 000
✛	Health Center	E	1 000

1 DM
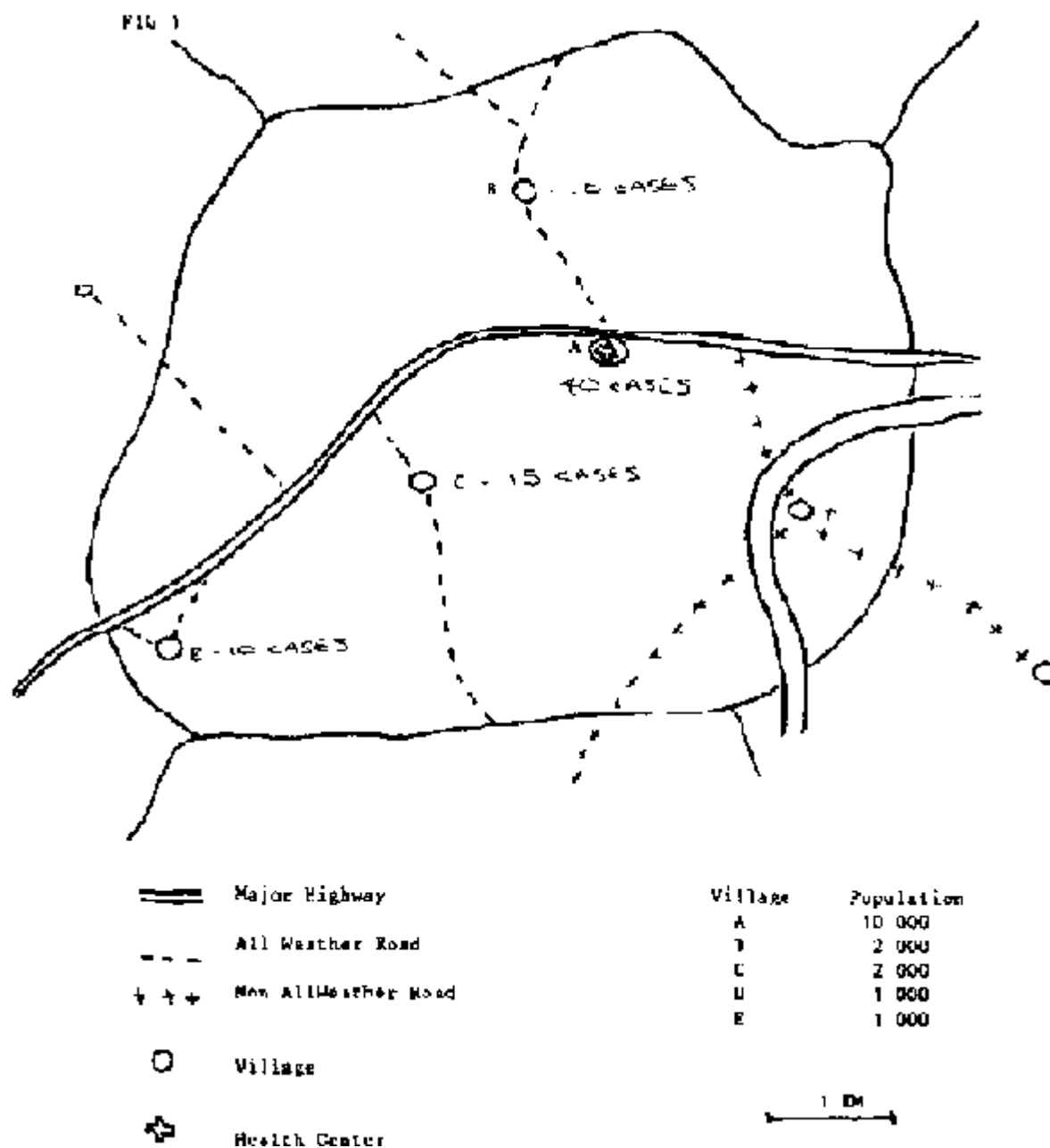
1. Ask the group if the cases appear to be more numerous in certain location.

Tell the group there have been several measles immunizations in Villages A, B, C and E. Ask them to identify if there are any villages or towns in which they would suspect that immunizations had not been effective.

Session 14: Working with the community

Handout 14A: Questions for evaluation community participation*
Handout 14B: Skills for development facilitators
Handout 14C: Helping the people to organize

Handout 14D: Motivating the community: An immunization example
Handout 14E: How can participation be organized?

Trainer Attachment 14A: Factors affecting participation in rural development projects

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TOTAL TIME: 4 hours

OVERVIEW

Community involvement is a theme that runs throughout this and other Peace Corps training. Trainees need to strengthen skills for involving community members in all aspects of primary health care projects and motivating changes to improve community health and self sufficiency. During this session, participants conduct interviews in the local community to find out ways in which community members, including leaders, have been involved in projects in the past. Afterwards, they share their information and, as a group, draw conclusions about how community members and leaders can most appropriately participate in the planning and implementation of health projects. Finally, they examine specific ways the PCV can facilitate that involvement.

OBJECTIVES

• To examine ways in which local community members and leaders have been involved in successful and unsuccessful projects in the past. (Steps 1-3)

• To analyse the functions of formal and informal leaders in community projects and discuss ways to encourage their participation. (Steps 1-4)

• To describe the role of the Volunteer as a facilitator of community involvement. (Step 5)

RESOURCES

- Bridging the Gap
- Community Culture and Care. Chapters 5 and 6.
- "Community Involvement" (WHO Supervisory Skills)
- Helping Health Workers Learn, Chapter 6, pp.11-24, Chapter 26 pp.16-34.
- Community Health Education in Developing Countries, (Peace Corps) pp.13-16.
- The Role of the Volunteer in Development (Peace Corps)
- Third World Women: Understanding Their Role in Development (Peace Corps)

Handouts:

- 14A Questions For Evaluating Community Participation.
- 14B Skills for Development Facilitators
- 14C Helping the People to Organize
- 14D Motivating the Community: An Immunization Example
- 14E How Can Participation Be Organized

Trainer Attachment:

- 14A Factors Affecting Participation in Rural Development Projects.

MATERIALS

Newsprint and markers

PROCEDURE

Trainer Note

During Session 14, participants continue to learn more about the local community and practice their information gathering and analysis skills. It is important to coordinate this session with sessions in the Role of the Volunteer in Development, won en in Development, and Cross-Cultural Training to assure consistency in approach and avoid unnecessary duplication of activities.

If it is impossible to structure an interviewing exercise in the local community, invite second and third year PCVs and training staff members to participate as interviewees and discuss their recent experience with community involvement.

Prior to the session, ask participants to read the following sections in <u>Helping Health Workers Learn</u>: Chapter 6, pages 11-20 (Community Dynamics and Participation) and chapter 26, page 16-34 (Paulo Freire's Method of Conscientization). Also distribute Handouts 14A-E. Explain that the readings and handouts will provide valuable background information to draw on during the interview exercise in the community and follow-up discussions.

Step 1 (30 min)
Preparing for Interviews in the Community

Open the session by asking participants to reflect for a moment on their own past involvement in community - based projects. Have several people briefly describe their experience. Ask the group to name several reasons why they think it is important to involve community members in planning and carrying out local projects.

Tell participants they will have the opportunity during this session to gather information on how the local community has been involved in various projects. Have the group think back on the information they collected during Sessions 9-12, and identify five or six examples of current or existing local community projects (e.g., building a school, setting up a child feeding center, constructing a portable water system). List these on the board. If you or the participants know one or more community members who were involved in these projects, write their names next to the respective project. Tell participants their task is, in small groups, to interview people in the community and develop case histories of the projects on the list.

Ask participants to address the following questions during their interviews:

- Where did the idea for the project come from?

- How was the work in the project organized? How were primary decisions made?

- Who was involved in the planning stages? Implementation? Evaluation?

- Who were the leaders in the project? How were they selected?

- If the project had outside assistance, what did the community contribute and what came from the outside?

- How did the project go (smooth running, setbacks, delays)? Overall, was it successful or unsuccessful? Why?

- Would you (the interviewee) say it's easy or hard to get people in this community involved in projects? Why do you think so?

- In what capacity or way would you like to be involved in a health-related project?

Ask the group if they would like to add any other questions to the list. When they are clear on the task, have them divide into pairs or groups of three, select one of the projects per group, and take they next 2 hours to interview community members.

Trainer Note

Important points about community involvement that can be raised in this initial discussion include:

- If people participate in a project they will be more interested in helping themselves in the future and less dependent on outside experts and resources (encourages self reliance).

- They will be more committed to taking the action necessary to carry out the project.

- Until people recognize and understand a problem they will not be interested in solving it

- Local knowledge and expertise should be included in the project planning so that the way the project is carried out will be better adapted to local needs.

During the interviews, if local language is a barrier, have language trainers and other bilingual training staff accompany the group into the community.

Step 2 (2 hours)
Interviewing Community Members

Have the participants carry out the interviews.

As the teams return to the training site, ask them to organize their information and prepare to report to the large group.

Step 3 (45 min)
Processing the Interview Activity

Ask each of the teams to give a brief report of the case project they investigated. As they mention specific ways the community has been involved in the various projects, write these down an newsprint.

After everyone has shared their information, have a discussion around the following questions:

- How were the projects similar in the ways in which the community was involved? (Refer the group to the list or newsprint)

- During which stage(s) of project development was the community mostly involved? (i.e., during planning, implementation, or evaluation)

- Were any of the same people involved in several of the projects? If so, in what role?

- Does there seem to be a correlation between the degree of success of a project and the degree of community involvement in the project?

- Are there cultural differences in our attitude and the attitudes of host country people toward community participation in projects?

Trainer Note

During the discussion here, as well as in Step 4, point out to the group any experiences or situations which seem peculiar to this community and not the norm for most other communities in the host culture.

Step 4 (25 min)
Identifying the Role of Leaders

Ask the group to focus for a few minutes on what they learned in the community and in their readings about leaders. Have participants quickly name all of the leaders they can think of in the local community and tell how they discovered them. If anyone interviewed a leader during the activity, or earlier on in training, ask him or her to describe the dialogue. Have participants analyse and draw some conclusions about:

- how members of this community become leaders

- the role of formal leaders in planning and carrying out projects (i.e., what functions they serve, what kinds of projects they are usually involved in)

- the role of informal leaders

Ask participants to imagine for a moment that they are Volunteers assigned to this community. Have them identify: 1) which of the formal and informal leaders they would most likely involve in their health project, and 2) what the nature of that involvement would be.

Trainer Note

Point out to the group that, oftentimes during project work, formal leaders function as authorizers and endorsers, while informal leaders are the "movers and shakers"; project success is usually dependent on the involvement of both types of leaders in their respective capacities.

Step 5 (20 min)
Defining the Volunteer as Community Facilitator

Ask the group to refer back to the list they generated in Step 3 of the ways the local community has been involved in projects. Ask participants to add any other ideas they have for involving members and leaders. Have the group identify which of the approaches they, as community facilitators, would most likely want to promote and design into their future projects.

Close the session by asking participants to reflect on the <u>knowledge</u>, <u>skills</u>, and <u>attitudes</u> they need to work effectively in the future as facilitators of community involvement. Moving around the room, ask each person to name something from one of those three areas that they would like to learn, develop or improve. Have the group consider why <u>attitude</u> is particularly important in working with the community.

Tell participants that in the next session, they will examine the issues and concerns related to working together with a Counterpart in project planning and implementation.

Handout 14A: Questions for evaluation community participation*

Table 7: Questions for evaluation: suggested framework for development of evaluation guidelines Community Participation and Development

Main Questions	Sub-Questions	Information Required	Methods of Obtaining Information
1. What is the nature and extent of community participation?	1) Is the community Involved In planning, management and control of the health program at community level?	1) Nature and effectiveness of local decisionmaking institutions (e.g. health committee). No. of meetings held where health Issues discussed. Participants at meetings.	1) and 2) Observations at meetings, Interviews and questionnaires with local personnel and health community development extension personnel.
	2) Are local resources used? What kinds of resources? (labor, buildings, money, mass activities)	2) Means of raising revenue how much raised. Degree of financial control of health activities Other resources contributed.	
	3) Is there a community health	3) Selection procedures for CHWs.	3) Interviews with CHWs and

	worker (or workers?)	How paid/supported. CHWs' role In health development committee Functions and activities of CHWs	community members and leaders.
	4) What percentage of the community participate In health activities? (e.g. Immunization, use of child clinics, antenatal care, latrines, clean water)	4) No of people with or using clean water, attending organized health activities etc. (see coverage)	4) Surveys, household questionnaires health service statistics.
	5) Have community projects been implemented? (e.g. vetting up a day caret child feeding center water protection)	5) Existence of community programs or evidence of ongoing or completed projects.	5) Observations.
2. Is there a mechanism for the integration of community activities at local level with outside agencies?	1) Is there a mechanism for dialog between health system personnel and community leadership?	1) No of meetings between health system and community representatives Topics discussed and characteristics of participants.	1) Observation and Interviews at community level.
	2) What other agencies are Involved at community level and what socioeconomic development activities are being implemented?	2) Other sector activities at community level No of visits to community by other agency personnel.	2) and 3) Interviews with personnel from other agencies, health and community loaders
	3) Does the mechanism for dialog with the health system (if it exists) include involvement of other agencies?	3) Level of other agency participation In community meetings.	

	4) Is there a mechanism for intersectoral co-ordination at higher levels? (e.g. district or region). How much control of resources and autonomy does it have?	4) Institutional administrative mechanisms al district level Nature of decision-making bodies and their membership intersectoral representation Access to resources.	4) Interviews and possible observations at district level
3. Are health activities coordinated with other sector development programs?	1) Is there evidence of coordination between health activities and other sector programs?	1) Health activities In schools. Role of health workers In agricultural extension - promotion of gardens, poultry, ale.	1) Visits to schools, interviews with school teachers, observations and interviews with health workers and CHWs.
4. Is there a mechanism for community representatives to be Involved in decision-making at higher levels and la this effective (are their interests adequately met)?	1) Are community representatives Involved al district and regional-level health planning and pro. gram management bodies? How much power do they have?	1) Participation of community members In district and regional-level health planning and management bodies. Who from the community participates, and do they have an effective vole?	1) Interviews and observation study of minutes of meetings, etc.
5. What forms of social organization exist In the community and how effective or powerful are they?	1) Are there women's groups, farmers' cooperatives or clubs, church or religious organizations young people's clubs, political organizations, trade unions, etc.? How active are they? How are they represented In the community leadership?	1) Identification of social groups, numbers involved In each, and representation of groups In community leadership. Information on activities of groups and influence on members, etc.	1) Questionnaires interviews and anthropological in-depth studies.
6. Are traditional	1) Where do	1) No. and type of	1) Interviews with

practitioners integrated Into the PHC program?	traditional health practitioners exist In the community? How frequently are they used for what purpose? Are they involved In health committees? Is there any contact between them and health system personnel (have) they had training)?	traditional practitioners and their workloads and patients Utilization pate terns of traditional practitioners Membership health committee. No. of contacts with health system personnel. Nos. trained, etc.	traditional practitioners, and patients. Household questionnaires (see health needs agreement). Health system records and interviews with health system personnel.
7. What is the potential for Increased community participation and more democratization at local level.	1) Are deprived groups adequately represented In decision-making Institutions? How can their Interests be more adequately represented In centers of power? Are there activities for consciousness-raising, Improving knowledge and skill of deprived groups?	1) Identification of deprived social groups (e.g. access to land, lobs, low Income, etc.) Participation In community meetings etc. How effectively organized and possibility for cooperative formation based on economic activity.	1) Questionnaires, infer" views, anthropological studies.
8 Is the community being adequately informed about health matters?	1) What methods of communication are being used and how effectively are they reaching people?	1) Evidence of mass media educational programs. Health education activities through health system. Health information provided through other sector extension programs. Percentage literacy and use of mass media coverage by extension programs.	1) Survey of health education programs.
	2) Is the information relevant, appropriate, and accurate?	2) Content of educational programs and comparison with agreed standards and	2) Assessment of the qualify (methods, e.g., visual aids used and

		priorities.	content Subject matter correct and related to stated priorities) Household questionnaires.

* Susan Cole-King, Approaches to the Evaluation of Maternal and Child Health Care in the Context of Primary Health Care

Handout 14B: Skills for development facilitators

Basic Skills

Throughout the stages of community development, the facilitator should:

1. Demonstrate an understanding of non-formal education through the use of:

• a variety of communication techniques.
• problem-solving activities.
• methods that motivate others to actively participate in the education process.

2. Stimulate planning and project implementation through the use of local skill, knowledge and resources during:

• needs assessment and planning.
• health education activities.
• follow-up.
• project review.

3. Use on-going methods of evaluation of community involvement.

Taking the First Steps

When the facilitator starts working with a community or group, he/she should:

1. Understand and be able to express his or her:

• motivation.
• expectations of the experience.
• strengths and weaknesses.
• role as a facilitator.
• individual values.

2. Be sensitive and able to identify:

• expectations of the local community or group.
• local culture and resources, including customs, values, knowledge and ways of life.

3. Communicate in ways that demonstrate:

• active listening and observation skills.
• an ability to filter information
• skill in working cooperatively and in collaboration with others.
• an understanding of the participatory approach to development.
• an ability to promote local self-reliance, integrity and well befog.

4. Use appropriate on-going techniques for evaluating community involvement.

Establishing a Dialogue

In the next stage of involvement, the facilitator should:

1. Demonstrate skills in facilitation and organization that include:

• an ability to work with existing local social structures and groups.
• stimulating active local participation.
• motivating others to contribute their skills and knowledge.
• planning and facilitating meetings, when appropriate.
• sharing techniques for effective problem solving, team building and negotiating.

2. Be able to examine, analyze and prioritize issues, concerns and needs within the local context.

3. Understand and be able to discuss development issues in relation to local problems and strategies for change.

4. Continue to develop skills in interpersonal communications, including:

• encouragement of local leadership, when appropriate.
• building trust and confidence.
• consultation (e.g., active listening, conferring and feedback).

5. Continuation of community involvement.

Planning with the Community

In planning for active community participation, the facilitator should:

1. Collaborate with the local community or group to identify:

• health needs
• resources
• goals and objectives
• potential problems or limiting factors

2. Assist in the establishment of:

• project criteria
• plan of action

• methods of project evaluation
• relationships with appropriate organizations and agencies to form a supportive network.

3. Clarify the kind and extent of his/her involvement in the project.

4. Continue evaluation.

<u>**Evaluating the Process**</u>

In order to learn from, and improve upon the experience of working with a community or other group, the facilitator should:

1. Work with community leaders to develop and use appropriate evaluation criteria and techniques.

2. Use a continuing process of evaluation to:

• review the level of local participation.
• review methods and approaches used during development work.
• assess the level of local self-reliance and wellbeing.
• generalize and apply the knowledge gained to increase in extent and benefits of community involvement in health projects.

(Adapted from: <u>A Training Manual in Appropriate Community Technology</u>. Peace Corps)

Handout 14C: Helping the people to organize

Now that you have some basic information about the community, the next step is to broaden your contact with the leaders of the community. Involve the fecal leaders as soon as possible in the project. Who are the leaders? Why are they important? How do you find them? What can they do to help?

Who are the leaders?

Anyone in the community may be a leader. A person is a leader when his or her ideas or actions influence others or he/she helps to get things done that the people want done. He/she is accepted by the people as a person of wisdom and sound judgement and one whose advice has been valuable in the past. He/she might be wealthy and powerful, or a person known to be very religious. Different people may be leaders in different areas such as agriculture, religion, politics or health. The leaders you are interested in should have some influence over people's actions which are related to their health.

Why are leaders important?

Community leaders usually make decisions that result in success or failure of a project. They are trusted and the people of the community will work with them more quickly than with you. If this is to be the community's program you must count on community leaders to take some responsibility for its success. You are the spark plug and the source of assistance. You can help bring together the other resources needed for improved

community health. But the project will not be a success unless members of the community participate; their participation is usually decided by community leaders. The people to work with are those respected by the community and who are willing to learn and work.

Two kinds of local leaders

1. *Formal leaders*: Are generally paid for what they do. Projects sometimes fail or move slowly because these people were overlooked during the planning stage. Consult them often and request their advice and assistance. Gain their cooperation. Examples of formal leaders are:

- Political appointees (mayor, party representatives)
- Government officials (police, national guard)
- Village chief
- Religious leaders
- School teachers
- Heads of organizations

2. *Informal leaders*: May receive no money for what they do and have no official authority. They come from the local community and often have more influence than formal leaders. They are not necessarily the persons with the best houses or the best pieces of land, but they are liked, trusted and respected by their neighbors and are willing to help. A woman may be a leader in respect to the need for a better water supply while her neighbor may mainly influence vegetable gardening.

How do you discover the informal leaders?

The first step is to consider the responses you received when asking villagers "Where would you go for help if you have a health problem?" Other questions you might use are:

"Who are the important people in the community?"
"Whose opinion do you respect?"
"Whose advice do you follow?"
"Who is wise?"
"Who settles arguments within or between families?"
"Whom do you think people would go to for advice when their children have fever? To organize a special trip or event?"

You will probably find that the people named are those with leadership qualities and that the named will differ according to the problem to be solved.

However, leaders may not be the persons who show the greatest interest at the beginning of a project.

You may not uncover obvious enthusiasm to help others, but people who express interest, friendliness, and willingness to work, or people whose name was mentioned often by neighbors, may be your key to potential leaders. In your quest to discover local leaders, do not bypass those who appear to be against your work. Give them special attention and try to win their support and cooperation.

Example of a local leader: the birth attendant

Birth attendants are the most widely distributed of any category of health-related person. The reason for this is that women usually wish some assistance at the time of delivery and they are unable to travel far or to wait long for some one to reach them when they go into labor. The birth attendant is also working at a time which is especially appropriate for maternal and child health education. Unfortunately, birth attendants are often untrained, but they are often very influential with mothers.

Identifying and working with local birth attendants can be very effective in health education. In fact, in some poor communities the entire standard of health, sanitation, infant and childhood death rates and family planning have been revolutionized primarily through the work of birth attendants.

What can leaders do for the community?

If an effort is made to give leaders a thorough understanding of how health problems affect community well-being and how these problems can be solved, they can contribute immeasurably to better understanding among the people. They can also become a powerful motivating force for community unity and action. Through their own acceptance of improved health methods and practices, they become a motivating force for change.

But, care must be used when deciding which leaders are the influential ones related to the specific community problem. In Tonga, an environmental sanitation project was initiated after preliminary planning with the community leaders. In Tongan society the women rank higher than the men according to traditional Tongan Kinship systems; the men however, are the heads of the households. The organization of the project was based on the men's support, and, at the request of the men, the women were not involved in the planning. The health workers left the decisions about methods of work to the male leaders but conducted the evaluation themselves. The project failed.

When a second project was planned in another Tongan community, an analysis was made of why the first one failed. The conclusion was that both the male and female leaders should have been involved. Both groups were given full control of the activities under guidance of the health worker. The villagers were left to themselves to make the decisions and suggestions supported by the majority were encouraged and used. Evaluation of the second project showed that every goal was achieved. [1]

[[1] Fanamanu, Joe and Tupou, Vaipulu. "Working through the Community Leaders, An Experience in Tonga." *International Journal of Health Education*. July-September, 1966.]

Project success can be achieved through the efforts of the villagers themselves, providing the right approach is used in promoting the active participation of the most influential community groups and leaders.

Here are some other ways leaders can contribute to the success of a project:

1. Bring people to meetings.
2. Arrange for and find meeting places.
3. Help reach more people by telling others.
4. Help people in the community know you and gain confidence in you.

5. Give general information about the program and help interpret it to the people.
6. Help identify problems and resources in the community.
7. Help plan and organize programs and community activities.
8. Help plan and organize any services which might be provided.
9. Give simple demonstrations.
10. Conduct meetings.
11. Lead youth groups and various individual projects.
12. Interest others in becoming leaders.
13. Help neighbors learn skills
14. Share information with neighbors.
15. Serve as an officer in an organization or chairman of a committee. [1]

How can these potential resources of the community be mobilized? In discussions with leaders, what have you discovered that is important to them? Maybe it is the protection of children's health. Maybe it is convenience, privacy, or cleanliness? Maybe they are moved by competition - "Other communities are solving their health problems." They might express pride in their community - "We have done so many other things in this village, but this problem remains." Capitalize on these motivations. Use them to guide you towards a better understanding of the people of the community.

(From: Community Health Education in Developing Countries, pp. 1316.)

Handout 14D: Motivating the community: An immunization example

The need for cooperation

* For your immunization programme to succeed, you need people to co-operate. It also makes your own work more interesting and pleasant.

* Busy mothers must take time and make the effort to come to your immunization session. They may have to walk a long way, or pay for transport. They have to remember when to come again.

* You need people to co-operate if you are to arrange an outreach session. You need help from the community to find an immunization site, and to borrow furniture. And you may need help during the session itself - for example, to register and to weigh children. You need help to encourage and remind mothers to attend.

* People will co-operate to make the programme succeed if THEY WANT the immunizations. They will not co-operate very well if they only accept immunizations because YOU want them to. They need to feel that their children's health is THEIR responsibility. You are there to help them to have something that they want and value.

* So, first you have to make the community want the immunization programme. That is, you must motivate or move the people.

What makes people WANT immunization ?

- they must want their children to be more healthy.
- they must know about immunizations.
- they must believe that vaccines prevent sickness and make children more healthy.

But, even if people want the programme, they will not co-operate if it is difficult or unpleasant.

What makes people COME to an immunization session ?

- they want immunizations for their children.
- it is easy for them to come.
- it is a pleasant experience.

MAKE IT EASY for people to attend.

Arrange outreach sessions at a time and place that is convenient for as many people as possible. Hold sessions at the same place at the same time on the same day of the month. Then it is easier for people to remember to come.

MAKE IT PLEASANT for people to come.

Be polite and friendly; make waiting areas as comfortable as you can.

How can you make people in a community WANT your immunization programme ?

FIRST - FIND THE PEOPLE IN THE COMMUNITY WHO CAN HELP

political leaders
community leaders
government staff
extension workers
women's groups
community health workers
traditional healers
traditional birth attendants
school teachers
religious leaders

Each community is different. You must find the right people in your community.

Explain to them about the dangers of the target diseases: and about vaccines and prevention.

Explain about your immunization programme, and what you are trying to do.

Ask for their advice about how to motivate the people in the community.

Ask their advice about the opposition and any problems that there might be.

Ask for their help to explain the programme to the community.

Ask for their help to arrange sessions that are easy for mothers in that area to attend, for example, on the local market day.

Ask them to encourage people to come to the session.

Of course, the immunization team are people too ' You cannot do everything ' So make sure that the sessions are possible for you as well.

SECOND - MAKE THAT COMMUNITY'S EXPERIENCE OF IMMUNIZATION A GOOD ONE

People's experience of your sessions will have a big effect on their motivation.

Be reliable, punctual, polite and friendly.

Look after your vaccines carefully so that they work.

Give the community some <u>feedback</u>. Tell people the results of your work; how many children you have immunized; whether there are less sick children in the district.

(From: WHO, "Health Education in an Immunization Program" <u>Immunization in Practice: A Guide for Health Workers Who Give Vaccines</u> pp. 2, 4)

Handout 14E: How can participation be organized?

Once the need for community participation has been recognized and a decision made on what kinds of participation are desirable, a framework must be established through which community can take place. Participation, once in motion, can become self-reinforcing, but getting it started is not simple. This chapter examines direct project efforts to promote community organization. The first section discusses the different village-level social structures and organizations that have been used as channels for participation-serving as catalysts for collective decision-making and action. The second section of the chapter examines how project staff have helped communities set up organizations; estimates of time and effort required are given. In the last section of this chapter, common problems in mobilizing-communities are outlined, as well as project inputs that can facilitate the development of active and effective community organizations.

COMMON ON ORGANIZATIONAL STRUCTURES

Families and individuals in a community can carry out the responsibilities discussed in Chapter 11 through several different organizational structures. The most common organizational form is the committee. The second most prevalent is the community assembly, used in conjunction with a committee. In a few projects, recognized leaders and CHWs have prime responsibility for community activities.

Committees are used by all but two of the projects reviewed (El Salvador/RHA and Iran/Kavar). Most of the projects created special, new committees for health-generally referred to as community or village health committees (CHCs). A few used previously existing health committees. Five projects worked through existing village development committees. Committees are most frequently used to carry out day-to-day management to implement decisions, and to mobilize the community for specie, health-related projects and activities.

Assemblies, general meetings open to all members of a community, are usually used in conjunction with committees. Of the 35 projects studied, 15 use initial or periodic assemblies to give the community a voice in planning and/or managing the health project. Assemblies generally perform "policy" functions, particularly playing a major role in deciding whether to participate in a project and in setting priorities for the project-all decisions that take place when the project is being initiated. Sometimes assemblies also have a longer-tam role and periodically (annually or semiannually) review project activities and progress.

Leaders are used as the sole means of involving the community in two of the projects reviewed (Iran/Kavar and El Salvador/RHA). In these projects community participation was limited primarily to selecting or nominating CHWs. In the other projects, leaders are consulted in the process of organizing the community to participate in the health projects, but broader representation is given to the community.

In addition, *community health* workers in a number of projects are delegated responsibility for carrying out administrative and management duties. Sometimes these health care agents are also expected to organize their communities and serve as prime organizers of community activities, leaving much less of a management role for health committees. About half the projects specifically mention training CHWs in methods of promoting participation.

Other organizations are also incorporated in a few health projects to broaden community representation and draw upon the strength of existing groups. Four projects mentioned working with women's weaving and crafts groups and mothers' clubs, although in most projects, major community responsibility is vested in a health committee or general assembly.

DECIDING WHICH ORGANIZATIONAL STRUCTURE TO USE

The choice of organizational framework is important. The review of 35 projects suggests that the extent to which all community members are represented is important, as is the appropriateness of the framework to the existing social realities of the community. The assembly/committee format is most frequently used in projects in which communities assume a wide range of responsibilities. Assemblies appear to be highly effective for achieving broad community awareness, interest, and participation in planning and management. Projects that use committees without open meetings tend to obtain less participation from the community. In terms of number and kind of functions undertaken by communities, projects using an assembly committee format undertake substantially more decision-making functions than those using committees or leaders alone-67 percent of the projects using assemblies/committees undertook five or more such activities, while only 17 percent of projects using committees and none using leaders did so. (See Table 6 below.) It seems logical that people are more likely to make substantial contributions of time, money, and effort when they are organized in structures that allow them some say in the project.

Yet the data from these 35 projects must be interpreted with caution, for although they suggest that the most democratic structures are most effective, judgments on the representative nature of an organization are difficult for outsiders to make. What appears as a democratic structure-i.e., an assembly open to and attended by the entire community-can be dominated by a since "charismatic" individual or the ruling elite. Similarly, a community leader, whether democratically selected or not, may represent the varied groups and interests in a community. Without an anthropological study, it is rarely possible for outsiders to evaluate these important subtleties.

Project experience also indicates that the organizational structure used to obtain participation should be culturally appropriate. Decisions are not made democratically in all societies, and to require this can be pointless.

• In the Afghanistan/BHS project, the process was adapted to the political reality of the Afghan village, which is not democratic in the Western sense. Although decisions in a village are made by consensus, the powerful landlords carry the most weight. Therefore, project staff first contacted the most important man in the village, who then called together other important members of the community to decide on CHC membership. Usually the same men who informally made such decisions were the ones selected.

• In the Philippines, where open assemblies have traditionally been used to make decisions on matters of concern to the community, the assembly structure was employed in the PUSH project to decide on what kinds of sanitation projects would be most appropriate and to choose sites for the projects.

SETTING UP COMMUNITY ORGANIZATIONAL STRUCTURES

In most PHC projects, health staff or organizers from community development agencies make initial contact with village leaders, explain the project to them, and try to stimulate community Interest. The projects using assemblies involve community members and leaden in organizing meetings and setting up committees to carry on further work. Projects using committees alone rely primarily on leaders to organize the committees, usually with guidance from the project staff. The process, as described in project documents, consists of three steps all of which require time and effort on the pan of project staff. Eliminating any of these steps generally results in more limited participation.

1) Project staff contact community leaders and explain the project; if there is initial interest, the leaders ate asked to inform and consult the community.

2) The leaders then call a community assembly to discuss the project and ascertain community interest and willingness to participate.

3) The assembly or leader then creates a committee (or designates an existing committee) to plan and carry out activities.

The following examples illustrate the range and variety of ways projects have gone about initiating community participation.

• In the Nigeria/Lardin Gabas project, community participation is a prerequisite for a village to join the project. A staff member initially calls a meeting of all villagers to discuss local health problems, the program, and the villagers' responsibilities if they decide to participate. The villagers then meet once or twice on their own to consider the program. If they decide to participate, they must contact the project staff who meet again with them to discuss further details. A booklet developed on the project, The Responsibilities of the Village Health Committee, is read and discussed. If the commitment is reaffirmed a village health committee-consisting of the village head, other officials, and elected representatives - is formed.

• In the Bolivia/Montero project, the Ministry of Health selected communities to be approached on the basis of a field study. At explanatory meetings in each community, villagers decided whether their community would participate. If so, the community organizing team worked with the community assembly to define problems, set up a CHC, and select a promoter (CHW).

• Project motivators in the Indonesia/Dana Sehat program spend a lot of time introducing and explaining the project to a group leader, who then explains it to other leaders, who in turn take it to a community assembly. The whole process consists of nine steps, each of which may entail several meetings.

TABLE 6 - ORGANIZATIONAL STRUCTURES AND COMMUNITY DECISION-MAKING FUNCTIONS.

Organizational Structure	Number of Functions Community Undertakes			Total
	5-7	**3-4**	**0-2**	
Assembly Committee (15)	67%	26%	7%	100%
Committee (18)	17%	44%	39%	100%
Leader (2)	0%	0%	100%	100%

* Decision-making functions include: helping to determine needs, determining project services, selecting CHWs or CHW candidates, supervising CHWs, planning activities, managing resources, and evaluating project activities.

PROJECT SUPPORT REQUIRED

Most projects do not indicate how much time was required to gain community acceptance of the project and set up the organizational structure for community participation. The Upper Volta/Save project mentions a two-meeting process to gain acceptance of the project by the village chiefs, but does not specify the time period. In Afghanistan/BHS, the recruitment team spent an average of two weeks per district setting up functioning health committees; about 15 villages per district were involved. The Bolivia/Montero project programmed five months for community organization, but later indicated that this was insufficient. A report by Management Sciences for Health states that, on the basis of the experience of the national primary health care project in Peru, the estimated time necessary to effect community organization is 3 to 6 months per community.

No information on the cost of setting up an organizational structure was identified. Such costs include 1) training community organizers to promote and maintain participation; 2) salaries, per diem, transportation for staff to assist in organizing community groups; and 3) training committee members to undertake new duties.

COMMON PROBLEMS

The review of projects reveals a number of areas where project efforts have often fallen short.

Inadequate Support of Community Organizations

Project planners seem to expect that assemblies or CHCs, once formed, will not only know what to do, but also how to do it. But experience clearly shows that it is highly unlikely that such community groups will spontaneously take on and effectively exercise appropriate functions. Well defined tasks, training or orientation on how to approach them, and ongoing supervisory support are all needed. Failure of projects to provide such training and support clearly affected some of these efforts.

• An evaluation of the initial Senegal/Sine Saloum project found that the decay of village management committees was at least in part due to inadequate supervision and support from government health and community development personnel. The document states that "the tasks of the committee . . . are new and strange. Without constant attention and reinforcement there is little likelihood that the structure and functions established during the motivation and training phases will be maintained."

A minority of projects provided specific training of health committee members for their expected functions.

• The Bolivia/Montero project's three-day leadership training session for newly-selected CHC members covers group decision-making, feasibility studies, management of community meetings, public speaking, problem-solving, and planning. While the CHW is being trained, the CHC receives an additional two days of training in CHW support, including managing community funds, budgeting, and procurement of supplies.

• The Colombia/Research project trained CHC members in project planning, implementation, and evaluation, and provided them with a manual. Specific training was provided at different times on how to collect information, conduct community surveys, and operate a community health surveillance system. At the community's request, CHC members were also trained in emergency first aid.

• The Nicaragua/PRACS project provided technical and administrative support for health committees from government health educators, CHWs, consultants, and other agency personnel, as well as radio and printed information. Philippines/PUSH indicates similar assistance.

The Nigeria/Lardin Gabas project noted that CHC members are trained for this function. A few other projects mention technical rather than managerial training for CHC members. The Upper Volta/Save project provides training in nutrition and growth monitoring to women CHC members; Thailand/Lampang has experimented with training some CHC members as health communicators (health educators). Lastly, the Panama/RHDS project gives CHC members training and technical assistance in agricultural matters to improve food production and nutrition

Lack of Community Input in Determining Responsibilities

Problems in keeping community organizations active are common, in part because community responsibilities and the specific functions of the health committees are generally determined by the staff, rather than the community. (Exceptions include the Upper Volta/Save. Colombia/Research and Mexico/Piaxtla projects)

Where there is a lack of community participation in determining responsibilities, they remain ill-defined and imperfectly understood. Failure to define functions thoroughly leaves the community organization with no long-term role, often causing a marked drop-off in participation.

• In the Thailand/Lampang project, the CHC was expected to support the CHW, but specific functions and responsibilities were not made clear. Consequently, once the CHWs were chosen, the CHCs tended to lapse into inactivity.

• In Niger/Diffa-RHI, health committees were never given any specific function beyond selecting the CHW and occasionally securing contributions of labor and materials. These committees also became inactive.

Limited Breadth of Participation

Another problem that has affected participation has been excessive reliance on leaders and elites. While most projects recognize the need to win the support of leaders and influential persons in order to gain community confidence and support, sole reliance on leaders and elites has sometimes resulted in failure to mobilize the community. Better results occur when the broader community engages in discussion and decision-making.

The breadth of participation in most health committees may therefore be a problem in many projects. Since membership is usually limited to community leaders, women and disadvantaged groups may be poorly represented. Though not often perceived as & problem by communities, the generally low participation of women has had detrimental effects on projects, resulting in inappropriate services and service hours, and in selection of male health workers who are often poorly patronized by women. Project planners should be aware of this and try to introduce changes favorable to grease female participation in ways acceptable to the community.

Some projects have made a special effort to incorporate women A few projects specifically mention female membership on CHCs. The Nicaragua/PRACS project noted that about one third of the CHC members were women. The Montero project has found that the most successful CHCs are organized by women. The Upper Volta/Save project has separate women's and men's CHCs, since the two sexes will not work together on one committee. A report on the Niger/Diffa-RHI project notes that women's groups are represented on the Comité d'Action (Action Committee)-but also notes that such representation has done nothing to broaden participation since these committees are not functioning.

While project guidance in selecting CHC members can be helpful in promoting greater representation, such as encouraging selection of women and people from other often-neglected groups, it is important to respect community social patterns.

• The Peru/Extension project tried to impose on the community a preconceived scheme of CHC selection by excluding political leaders from membership, Without the presence of acknowledged leaders, the CHCs could not function well because the community did not recognize their authority.

(From: Primary Health Care Issues, <u>Community Participation</u>, American Public Health Assn., Jan. 1983)

Trainer Attachment 14A: Factors affecting participation in rural development projects

FACTORS:	EXAMPLES OF EFFECTS
Physical and Biological	
Climate, weather fluctuation, rainfall; soil fertility, water elevation; terrain, vegetation patterns; insect and animal pests population	Long rainy season may make it impossible to bring children for immunizations because roads and paths are impassable; poor soil

size relative to land resources	fertility for upland farmers may mean they must work enough harder than lowland farmers that they nave no time for participating in health projects.

Economic

Land tenure and ownership patterns; agricultural production patterns; crop and livestock resources; income and expenditure levels; savings, investment and credit; employment possibilities; level of industrial development; markets and transport; roads and communications.	The poorest people most in need of the benefits of health projects, are likely to have the least time and opportunity to participate. Most of their energy goes into survival.

Political

Centralized vs. decentralized structure of government; competitive vs. single party system; tradition of local government or none; linkages if any of central elites to rural areas and problems; prevailing ideology; orientation toward participation by rural people	Local government units more an extension of central government authority than representative of local population will lack tradition of their exercising local authority; national center that gives only superficial suport to rural development goals and fears any grassroots mobilization may inhibit participatory organization.

Social

Settlement patterns, nuclear vs. Extended family structure' clan, ethnic or voluntary association memberships; caste or race division; social stratification and class ; cumulative vs. Cross-cutting social cleavages; local institutions for conflict resolution rural-urban differences; patterns of migration.	Farmers live in isolated homesteads which make organizing health projects poverty, tenancy and ethnicity make it difficult to develop projects not controlled by wealthy, landed and dominant groups

Cultural

Values relating to place of agriculture in people's lives; sex roles and division of labor' orientation toward future and toward change; attitudes toward group activity and cooperation patterns of political and social deference; attitudes toward role of women in local and national society.	In certain communities, males will not let women leave house compounds, let alone attend a health education session at the health posts general attitude of family loyalty and inter family competition inhibits cooperation on health projects. Norm of consensus goes against "democratic"

	majority voting that might defeat the landowner.
Past Project Experience	
Past relationships between this area and the national center (cooperative or hostile); traditional rivalries between towns within area; past experience with central government initiatives for rural development;	Prior experience with a project whose rice seeds failed to germinate makes it difficult to get new practice; history of embezzlement of self-help funds raised by community leads many local people to distrust new health community efforts.

Session 15: Working as a counterpart

Handout 15A: Working style inventory
Handout 15B: Continuum of volunteer helping/work styles
Handout 15C: The OFPISA problem solving model

Trainer Attachment 15A: Style analysis

TOTAL TIME: 4 hours

OVERVIEW

A very important working relationship for the Peace Corps Volunteer is the one they maintain with Host Country Nationals who are their Counterparts. The Counterpart may be assigned to or identified by the Volunteer. At different times the Peace Corps Volunteer and the Counterpart will be consultants, friends, and leaders in their collaborative efforts. When the PCV leaves the community, the Counter part hopefully will remain to carry on the projects they began together. Because projects depend greatly on the relationship between the PCV and the Counterpart, the Volunteer needs to have a clear idea of their roles and the nature of their involvement with their Counterparts and with the community. In this session, participants define what it means to be a Counterpart, examine the role and relationship of the Volunteer and Counterpart, and explore ways to maintain a collaborative relationship.

OBJECTIVES

• To explore different styles of working with others and assess the consequences of those styles in development projects. (Steps 1, 2, 4)

• To develop a working definition of Counterpart (Step 3)

• To examine the role and relationship of a Volunteer and his or her Counterpart. (Step 4)

• To solve a problem related to working with a Counterpart using the OFPISA problem-solving method. (Steps 5, 6)

RESOURCES

The Role of the Volunteer in Development (Peace Corps)

Handouts:

- 15A Working Style Inventory
- 15B Continuum of Volunteer Helping/Working Styles
- 15C The OFPISA Problem Solving Model

Trainer Attachment:

- 15A Style Analysis

MATERIALS

Newsprint, felt tip pens.

PROCEDURE

Trainer Note

This session, while designed primarily for pre-service Volunteers, should prove useful to in-service Volunteers as well. For in-service training Steps 1, 2, 4 and 5, should be adapted to reflect the realities of the PCV's own personal experiences and previous training. The problems they choose to solve in Step 5 should be current problems they are facing.

Prior to this session invite a Volunteer and his or her counterpart to make a brief presentation on their experiences of working as a team. This presentation occurs in Step 4. Ask the pair to address the issues of how they came to work together, the "working styles. they use, and how these styles have changed through time. Before their arrival, send them a copy of the working styles inventory and the continuum in Handouts 15A and 15B. Ask them to use the ideas and terminology in the handouts to structure their talk.

You should obtain from the Peace Corps Country Program Directors or second year Volunteers any guidelines that have been established for selecting a Counterpart (e.g. language capabilities, status in the community, formal educational background). This information should be used in Step 7.

Step 1 (30 min)
Personal Working Styles

Explain the session overview and clarify each of the objectives. Distribute Handout 15A (Working Style Inventory). Have the Trainees read the instructions, do the inventory and score them selves afterward. Answer any questions which may arise. Suggest that Trainees move through the situations on the inventory without spending too much time

on any one. Explain that there are no " right answers" and that the objective is to gain a sense of their working style. Any attempts at "second guessing" the inventory are defeating the purpose.

When the Trainees have finished calculating their scores, tell them that this inventory corresponds to a continuum of working styles and that their scores correspond to one of the following styles:

- A = Direct Service
- B = Demonstration
- C = Organizing with Others
- D = Indirect Service

Distribute Handout 15B (Continuum of Volunteer Helping/Working Styles) and ask them to read the explanation of the styles provided on the handout.

Ask for a show of hands of high scores in each of the four categories of styles. Discuss the continuum diagrammed at the top of the handout. Ask the Trainees to identify "who is responsible for the work. on each side of the diagonal line. Have them determine the extent to which dependency and/or self-reliance are being fostered by each working style. Discuss whether or not they feel that the inventory is an accurate reflection of their working style; and, if not, why?

Trainer Note

When discussing "who is responsible for the work. on each side of the diagonal line of the continuum, have the participants examine this issue in terms of both working with a community and working with a Counterpart.

Step 2 (35 min)
Working Styles Continuum

Have the Trainees divide into pairs, such that each person in each pair scored high in a different category of the continuum. Assign the pairs the following tasks:

1. Discuss two or three of the situations from the inventory and for each one, share the reasons that you scored it the way you did, including any conditions that were present that made you decide one way or the other. Some examples of conditions might be the credibility of the PCV, similar past project failures, the timing of the project in relation to the situation, and so forth. Try to discover what assumptions you are making.

2. For each situation, discuss what the consequences of your choices may be in relation to the principle of working towards eventual self-reliance for the community and for the Counterpart.

- What are the critical factors to be considered in each situation?

- What might be some consequences of a tendency toward any one style?

- What are the long term/short term effects of each working style?

- How does your need to establish credibility and your need for positive reinforcement influence your working style?

- Is self-reliance a desirable goal in all cases?

- During this discussion, what were the points you generally agreed and disagreed on?

At the end of the discussion, have the group draw some conclusions about the advantages and disadvantages of the four working styles by completing the newsprint chart you have developed from Trainer Attachment 15A (Style Analysis).

Trainer Note

Prior to this step draw on newsprint a large version of Trainer Attachment 15A (Style Analysis) and keep this posted in a visible spot for the rest of the session.

The following summary, taken from The Role of the Volunteer in Development, includes points that should be mentioned during the discussion on the various working styles.

"These four styles can be seen as related to stages in the development of self-reliance. For example, in a beginning stage, a group may never have worked together, may not have any technical resources and may not believe that it is possible to make improvements. In such a situation a Volunteer may decide that the best way to get things moving is to: a) establish credibility; b) show people that (for example) a good laying hen can be produced; and c) salvage a bad situation. In so doing, he or she may decide to simply do the work himself or herself and show the skeptical that something could be done. In this instance, the Volunteer may be using a combination of "direct service" and "demonstration".

At a later stage of development as a group or project moves towards self-reliance, a Volunteer may decide that the best way to help a group move along is to work with only the leadership in a community to help with ways to effectively plan or communicate together. In this instance, the Volunteer will do nothing without a Counterpart from the community. The primary task in this case would be leadership training and "organizing with others". In these situations, one must consider the circumstances and the consequences and address a critical question: Is one looking for a short term or a long term result?

In reality, different styles or combinations of styles may be called for at different times, depending on the circumstances, the urgency of the task, what people are expecting of the Volunteer, whether the project is at a beginning stage or a later stage, whether one is addressing a long term or short term situation, etc. Sometimes, a Volunteer may need to use all four work styles on different days of the week for the same project. Whatever the style, there are consequences for the way a Volunteer works."

Tell the group that the rest of the session will primarily focus on what it means to be and work with a Counterpart and the advantages and frustrations that occur in this type of working relationship.

Step 3 (20 min)
Defining Counterpart

Introduce this step by asking the participants to define the terms "Counterpart" and "Colleague". Ask them which of these words they would use to define their relationship with the other members of their training group and which would apply to their relationship with a Host Country National who is:

a) assigned to work with them by the Government;
b) someone in their community who is already working in the Volunteer's assigned area;
c) an interested community member.

If they differentiate between these terms ask them to discuss on what basis they are making a distinction. Possible points for discussion include:

- the status implied in the two terms (e.g., hierarchy or equality)
- cross-cultural values associated with either term
- level of training/experience of the Host Country National assigned to this program area
- amount of training the participants feel they will be responsible for imparting to a Host Country National or receiving from this person
- supervisory roles.

Have them comment on any insight they may have gained by examining these words and their concepts.

Trainer Note

The purpose of this step is to have the participants begin to examine their thoughts on how they tend to view what being a Counterpart means to them. This term for pre-service participants may be one they've never used or thought of before and they may view it as a concept that is only used in cross-cultural contexts. In talking with others in the training center, participants may have formed the impression that a Counterpart is a person that has less status or educational background and is the recipient of the Volunteer's "expertise".

Step 4 (35 min)
Conversation With A Counterpart

Introduce the Volunteer and his or her Host Country Counterpart who have been invited to attend this session. Tell the participants that their guests have been asked to share the experiences, difficulties, and benefits of their relationship. At the end of the presentation open up the floor to questions from the group.

Trainer Note

Ask this pair to conclude their presentation by using the chart in Trainer Attachment 15A as a format for listing the advantages/ disadvantages of each working style they have used.

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10 Minute Break

Step 5 (60 min)
Problem Solving

Begin this step by asking the group to look at the two lists from Steps 2 and 4 which contain a summary of the points made for and against each type of working style. Ask them to select one disadvantage or frustration that they listed under the heading "Organizing with Others".

Distribute Handout 15C (OFPISA Model and Work sheet) and ask the group to read it. Using the problem selected by the group, work through the problem solving worksheet with them, clarifying along the way any questions they may have.

When the group feels comfortable with the model, ask them to select three other problems listed on the charts and form three small groups. Tell each group to resolve their problem using the OFPISA model as a format.

Answer any questions participants may still have about the assignment and tell them they have 40 minutes to complete the task.

Trainer Note

Prior to this step prepare on newsprint a large version of the problem solving worksheet from Handout 15C to use with the group.

Ask the guest Volunteer and Counterpart to work with the small groups as they solve their problems.

Step 6 (30 min)
Presenting Their Solutions

Have each group present their problems, the solution and the steps they used to reach an agreement on the solution. After each presentation allow a few minutes for other participants to discuss the solutions and to determine their acceptability. After all three groups have completed their presentations ask them to discuss:

- how helpful the model was for solving their problem.

- how the OFPISA model compares to any other problem-solving models they may have used in the past.

- how they think they may use it in the future.

Step 7 (10 min)
Planning for the First Month in the Field

With the help of the guest PCV and Counterpart, have the participants brainstorm a list of actions for selecting or working with a Counterpart that could be taken during their first month in the field. This list may include for those without assigned Counterparts:

- Establishing criteria for selection (e.g., language, formal education, sex)

- Determining actions to take for the selection process (e.g., meeting with village leaders, talking with ministry or program officials)

- Identifying resources for compensating the Counterpart's.

For those participants who will be assigned a Counterpart, the first month might include such activities as:

- Jointly determining their duties and responsibilities vis-à-vis the program
- Establishing program or project objectives
- Developing a work plan.

Handout 15A: Working style inventory

Self-Assessment

Ten situations typical of those faced by Peace Corps Volunteers in the past are described below. Four different ways of handling each situation are then described. Select the way you think you would be most likely to handle each situation and assign the number "4" to that choice. Select your next preferred choices and the least preferred choice. Assign your numerical choices directly on the scoring sheet attached to this Self-Assessment form.

This form is designed to help you assess your own personal preferred style of handling situations which you are likely to face during service as a Volunteer. Later, you will analyze the results yourself.

ASSIGN A "4", "3", "2", OR A "1" IN THE ORDER OF YOUR PERSONAL PREFERENCE FOR HANDLING EACH SITUATION DESCRIBED. PLACE YOUR RESPONSES DIRECTLY ON THE SCORING SHEET ATTACHED TO THIS SELF-ASSESSMENT FORM.

SITUATION #1

You are entering your assigned village to take over an appropriate technology project. The Volunteer you are replacing has already left. The project is three years old. You have had brief discussions with the village leadership and get the sense that the project is being received with mixed results. You have been asked to address a meeting of village leaders to introduce yourself. How would you prefer to handle the situation? (Respond on the Scoring Sheet.)

Choices

A. Present your approach to the project and ask for questions and advice.

B. Seek the leadership's view of the project and identify problems.

C. Ask the leaders to describe their goals for the project as well as other pressing needs the village is facing.

D. Ask the leadership if you can sit in on this meeting and become better acquainted with village needs before addressing a meeting.

* edited from: The Role of The Volunteer in Development, Peace Corps Core Curriculum Materials, December 1981, OPTC, U.S. Peace Corps, pp. 67-82.

SITUATION #2

You are assigned to a small vegetable cooperative project which has been underway for several years. There is very high interest in the project among the village at large. However, the local leadership has just decided all coop labor must be assigned to re-building the bridge recently flooded out during the rainy season. This is planting time for the vegetable coop. What would you do?

Choices

A. Persuade the leaders to change their priorities, at least to enable the once-a-year planting in the vegetable fields.

B. Help the leadership identify some alternatives to choosing between the vegetable crop and the bridge.

C. Help the local vegetable coop manager develop strategies to try to get the local leaders to reconsider.

D. Join in and facilitate bridge repair in an effort to complete it in time to also plant vegetable plots.

SITUATION #3

You are in the last six months of your tour. It is unclear whether you will be replaced by another Volunteer. The local project committee is urging you to be sure to finish a gravity irrigation project before you leave. You are not sure you can complete it in the time allotted. How will you handle this pressure?

Choices

A. Try as hard as you can to complete the project.

B. Lead a planning meeting with the local project committee and staff and try to develop alternate strategies.

C. Concentrate on developing skills in the local project staff to enable them to complete the project after your departure.

D. Pass the dilemma on to then local project staff leaders and encourage them to solve the problem and tell you what to do.

SITUATION #4

A new counterpart has been assigned to your food production project. The new counterpart does not have the connections with local district officials which the previous counterpart had and seems unable to use connections to get needed inputs. If you do not get the needed inputs soon, serious food shortages could result. What will you do?

A. Use your previous associations through the past counterpart to ensure the required inputs are received in time.

B. Develop strategy with new counterpart to provide introductions and contacts to enable the project to get inputs in time.

C. Ask new counterpart to develop plan to get inputs and critique plan.

D. Encourage new counterpart to go out and try to figure out how to get needed inputs.

SITUATION #5

You have taken over an agricultural production project of the "green revolution" type with a "most promising farmer" orientation. There are two very progressive farmers using the new technologies and greatly increasing their cultivated land. Most farmers in the area have not adapted the new practices. The village leadership is predicting scarcity to starvation next year if food production is not greatly increased. Where will you focus your time?

Choices

A. On increasing food production by whatever means, including using the progressive farmers as "model" farmers for others.

B. Balanced between encouraging the progressives and working directly with more traditional farmers.

C. Organizing traditional farmers and training them in new agricultural practices.

D. Identifying why traditional farmers are not adopting new agricultural practices.

SITUATION #6

The village to which you have been assigned has a beekeeping project going and is highly motivated about it. Your assignment is a general agricultural assignment, but you happen to know quite a bit about beekeeping and see some ways to help improve their already successful project. They have shown no interest in using you in that way. How will you respond?

Choices

A. speak to village and project leaders laying out some of your ideas for improving the project and suggesting a change in your assignment.

B. Make suggestions from time to time, informally, demonstrating your competence in this area.

C. Share your dilemma with your counterparts, seek their advice and follow it.

D. Move ahead with your assignment as planned, being alert to any future opportunities to be helpful in an informal way with beekeeping.

SITUATION #7

You are beginning the second year of your two-year teaching contract. You have been able to introduce some innovative methods and students and fellow faculty have responded well and begun to adopt them. Some students in particular have "blossomed" under your direction. What are your priorities for the next eight months?

Choices

A. Focus on blossoming students and bring more into the fold.

B. Organize special teacher-training seminars to broaden and deepen innovations already adopted.

C. Seek opportunities to co-teach with counterparts to solidify innovations already adopted.

D. Begin planned withdrawal to lessen the dependency on you for sustaining innovations adopted.

SITUATION #8

You are a health and nutrition specialist for a community clinic with a very vague and general assignment. The needs surrounding you are overwhelming, but you don't know where to begin. The clinic director seems glad to have you but has provided no specific direction. How will you begin?

Choices

A. Assess your strongest field and make a concrete proposition to the director to clarify your role.

B. Ask for a meeting with the director to mutually explore priorities for the clinic and ascertain where you can be most helpful.

C. Ask your counterpart(s) if you can observe them for a month in hope of identifying areas where your skills can complement theirs.

D. Conduct a community needs assessment and develop your role in response to community needs.

SITUATION #9

Your counterparts are becoming increasingly dominating during project community meetings. As their confidence and skill has grown, you have gladly given more responsibility to them; but it seems to you that other committee members are becoming withdrawn from the project. You want to build a strong project team, rather than just strong counterparts. What should you do?

Choices

A. Raise the issue directly with your counterparts and offer to lead the next committee meeting to demonstrate participative leadership skills.

B. Provide help in planning the next meeting and make some specific suggestions to the counterparts about how to modify leadership behavior.

C. Watch for opportunities to provide feedback, ask the counterparts questions about how they think the meetings are going and reinforce participative behavior.

D. Leave the situation alone and count on the community to call the counterparts on dominating behavior, then reinforce the offer to help.

SITUATION #10

Your counterpart is moderately skilled and experienced and moderately interested in your project. He or she does not see the project as advancing his or her own career. The village, however, is vitally interested in the project. How would you handle this situation?

Choices

A. Try to get counterpart reassigned and temporarily take over direction of the project until a new person is assigned.

B. Spend time with counterpart trying to identify ways in which his or her role in the project can both meet project goals and career aspirations.

C. Work with counterpart on career goals and help him or her develop a strategy for pursuing them, including leaving the project, if appropriate.

D. Facilitate a meeting between community leaders and the counterpart to see if they can come up with a mutually satisfactory solution to the problem.

SCORING SHEET

Situation #1   A   B   C   D

Situation #2   A   B   C   D

Situation #3   A   B   C   D

Situation #4   A   B   C   D

Situation #5   A   B   C   D

Situation #6   A   B   C   D

Situation #7   A   B   C   D

Situation #8   A   B   C   D

Situation #9   A   B   C   D

Situation #10   A   B   C   D

TOTALS   ____ ____ ____ ____

<u>Instructions</u>:

Enter your responses for each of the 10 situations. Assign a "4" to your first choice, a "3" to your second choice, a "2" to your next choice and a "1" to your last choice in each situation.

When you have responded fully to each set of choices, total the number vertically in each column.

(Adapted from: <u>The Role of The Volunteer In Development</u>, P.C. December 1981, pp. 67-82)

Handout 15B: Continuum of volunteer helping/work styles

Scheme
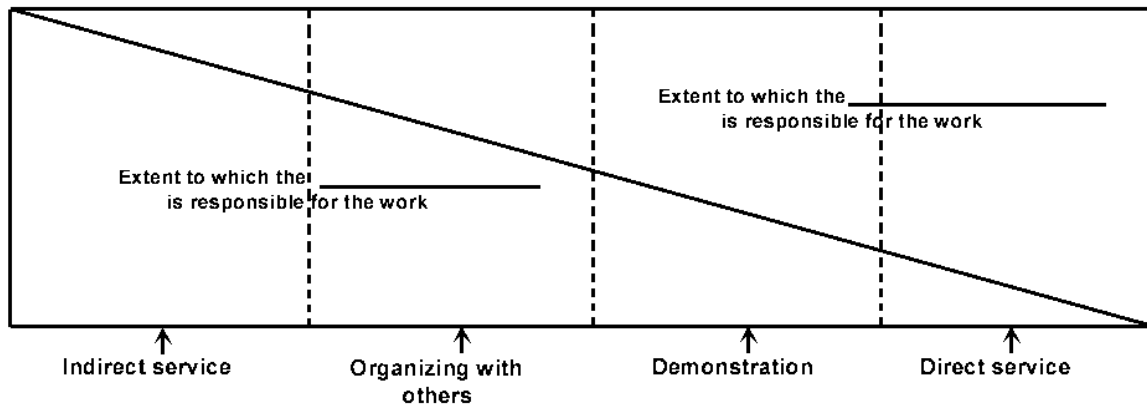
COLUMN A: <u>DIRECT SERVICE</u>

This is a direct approach in which the Volunteer mostly does the work, gets a project organized, provides a needed service where none exists and generally taken the initiative for making things happen. In most instances, this means that the Volunteer takes responsibility for the action or project, and that a counterpart may or may not get involved - and even if involved, will look to the Volunteer for action and leadership.

COLUMN B: <u>DEMONSTRATION</u>

In this approach or situation, the Volunteer spends most of the time demonstrating to others how to do something, but also spends a lot of time doing it themselves. Most often the responsibility is shared with one or two counterparts. The work is a combination of direct service and training/demonstration, often with the Volunteer sharing some responsibilities with a promising local leader or an assigned counterpart.

COLUMN C: <u>ORGANIZING WITH OTHERS</u>

In this system, the Volunteer encourages and stimulates promising counterparts and others in the community, generally although not always - working with people rather than directly on projects. (NOTE: Throughout this session, we use community in its most

generic sense - it could be a school community, an agricultural office, or a town or section of a city). The focus is on building leadership and helping a group or organization develop which will continue the work. The primary work is behind the scenes using influence, assisting as a resource in developing alternative solutions which the people choose or generate themselves, serving in a training capacity, occasionally serving as a role model in doing work and so on.

COLUMN D: <u>INDIRECT SERVICE</u>

In this approach, the Volunteer responds to a range of situations and problems raised in volunteer work by helping others solve their own problems; the Volunteer does not direct any of the work but concentrates on helping the people define and refine their perceived need. Help is given only on request, rarely initiated by the Volunteer. The Volunteer may even come and go, leaving the project to do something else and thus reinforcing the autonomy of the group. The way the Volunteer works is primarily clarifying, asking questions, listening a lot and facilitating.

Handout 15C: The OFPISA problem solving model

Buckminster fuller said that a problem well stated is a problem solved. In order to state a problem completely and well, as much relevant information as possible oust be gathered. The following model 15 designed to assist in the definition of the problem, the examination of all its aspects and an acceptable resolution to the conflicts and challenges presented by it.

In the model, first the original problem is stated. This nay also be a goal, objective or issue.

Then, the factors relating to the problem are listed. The problem may be defined as a temporary equilibrium between factors that move toward change and those that restrain it. In order to solve the problem, the equilibrium or tension must be broken. The equilibrium may be likened to a force field: the problem is held static between opposing forces that push and pull. All factors are listed that have any bearing on the problem) One list notes the driving forces toward resolution and another notes factors that serve as restraining forces. The Journalistic "w's" are useful in identifying the factors: who, what, why, where, when and how.

The problem redefined or restated is considered next. After all the factors both for and against resolution are identified, the real problem may emerge. This may be a simple restatement of the original problem or it may be another problem entirely, based on new information provided by examining the various factors.

Many and different ideas are generated by brainstorming: all ideas, suggestions and possible solutions are listed without discriminating among them. These serve to either increase the forces driving towards resolution or decrease the restraining forces. The brainstormed list may be comprised of logical, sensible ideas as well as those that seem crazy or not at all feasible. It should be remembered that most of the important or mayor inventions of the world had their origin in a "strange" idea that somehow worked!

Therefore, Judgment should be suspended during this phase and all creative suggestions listed, regardless of their initial appearance.

To devise a solution to the problem, a selection and comparison of the various ideas are made, thereby generating concrete end potentially viable solutions.

Each potential solution is evaluated to determine its acceptance by those affected by it. If the solution is not acceptable, another solution must be tried. If it is viable, then it is implemented and the problem has begun to be resolved.

One way of remembering this model is to term it the OFPISA (as in the leaning tower):

O - Original problem.
F - Factors
P - Problem redefined
I - Ideas
S - Solutions
A - Acceptance

PROBLEM SOLVING WORKSHEET

O - Original Problem
F - Factors: Driving Forces - Restraining Forces

P - Problem Restatement
I - Ideas

S - Solution
A - Acceptance

(Adapted from: CHP international Inc., Staff Training Materials)

Trainer Attachment 15A: Style analysis

Working Styles	Advantages/Satisfying Experiences	Disadvantages/Frustrations	Motivational factors for adopting this style
Direct Service			
Demonstration			
Organizing with Others			
Indirect Services			

Module 4: Health education

Behavioral objectives

By the end of this module participants will be able to:

1. Identify community practices affecting health that can and should be modified or reinforced through health education by doing the following:

- Identify priority community health problems,

- distinguish and prioritize harmful and helpful health related practices, and factors that enable or restrain that health behavior.

2. Write and critique two health education objectives according to the criteria presented in Session 18.

3. Develop and critique a plan for a health education project that follows the guidelines provided in Session 20.

4. Define monitoring and list several indicators that will help health personnel document changes in the project and identify specific problems to be resolved.

5. Explain two types of evaluations and develop a list of criteria for use in evaluating community health projects.

6. Correctly select and use appropriate techniques of storytelling, using pictures to stimulate discussion and demonstration for specific health education objectives and a particular target group, following the guidelines given in Session 23.

7. Draw or adapt a visual aid using tracing so that it meets the six design criteria stated in Session 23 and applies the cultural considerations stated in Sessions 22 and 23.

8. Based on discussion and case studies in Session 25, describe at least 3 ways mass media techniques have been used successfully in community health education projects. Health Education Behavioral Objectives

9. To Pretest and adapt a visual aid or other type of communication technique for use in the community following the guidelines given in Session 26.

10. Plan, conduct and evaluate a health education session that follows the four steps of the experiential learning cycle and meets the criteria for a good learning experience described in Session 23.

11. Plan and implement a Health Day with a series of events that educate local people about health. The events will incorporate a variety of educational and promotional methods and materials and demonstrate technical competency in primary health care activities to the satisfaction of the trainer.

Session 16: Introduction to health education

Handout 16A: Introduction to health education
Handout 16B: The health education process
Handout 16C: Health education problem

Trainer Attachment 16A: The aims of health education
Trainer Attachment 16B: Sample solution to the health education problem

TOTAL TIME: 2 hours, 15 minutes

OVERVIEW

Education concerning prevailing health problems and methods of preventing and controlling them is the first of the eight essential components of primary health care and the principal role of the PCV in selective PHC activities such as CCCD activities. Successful community health education requires a good understanding of the aims of health education in primary health care as well as the ability to plan, carry out, monitor and evaluate. Sessions 16-28 comprise the Health Education Module and provide both macro and micro perspectives. Specifically, Sessions 16-22 treat health education at the project level while Session 23-28 focus on the design and conduct of individual activities.

During this initial session, participants discuss the aims of health education and do a problem solving activity in small groups, using eight steps for planning, conducting and evaluating health education. In following sessions they focus on and practice each step in more detail.

OBJECTIVES

• To identify five basic aims of health education in primary health care. (Steps 1, 2)
• To describe examples of health education for individuals, groups, and communities. (Step 3)
• To apply eight basic steps of the health education process to a case study situation. (Steps 4, 5)

RESOURCES

Community Health Education in Developing Countries. p. 1.

Handouts:

- 16A Introduction to Health Education
- 16B The Health Education Process
- 16C Health Education Problem

Trainer Attachments:

- 16A The Aims of Health Education
- 16B Solution to the Health Education Problem

MATERIALS

Newsprint, markers

PROCEDURE

Trainer Note

The day before this session distribute Handout 16A, (Introduction to Health Education) to all participants. Ask them to read it and be prepared to use this information in their discussion in Step 1.

Prior to the session, prepare a list of aims of health education similar to the list in Trainer Attachment 16A (Illustrating Aims of Health Education) and follow the suggestions on preparation for that activity. Please note this activity enables participants to examine their own and others' assumptions about health education as a basis for understanding rather than simply memorizing the definition of health education presented in Step 3.

Adapt the Handout 16B (Health Education Problem) to fit the local situation.

Step 1 (30 min)
Identifying the Aims of Health Education

Divide the participants into four groups. Give each group seven slips of paper with examples of aims of health education (from Trainer Attachment 16A). Explain that each group should come to an agreement on the three examples that best describe the aims of health education. Encourage group members to discuss the ideas about health education that guided their choices of examples. Give them ten minutes for this task. Also, tell them that two representatives from their group will be going through the same process with

representatives from another group while the remaining group members observe the discussion.

Call time after 10 minutes and ask the representatives from groups one and two to meet in one place and groups three and four to meet in another. Give them 8 minutes to select the four best examples from those chosen in the first group discussion. Again encourage them to share ideas about health education during their discussion. After they come to an agreement each group should select a spokesperson to present their choices to the larger group.

After 8 minutes ask the spokespersons to report and explain their final selections. Lead a group discussion to select five aims of health education. Summarize the list on newsprint and lead a discussion of what participants learned about health education from others in the groups.

Ask questions such as:

- Have your ideas about health education changed as a result of this discussion?
- How does health education relate to primary health care?

Trainer Note
In the discussion emphasize that health education is an essential component of primary health care. Refer back to Session 5 (Primary Health Care) for the list of the eight essential components and the diagram of the relationship of those components. Note that health education interlinks all those components. Also emphasize that health education, as a part of primary health care and CCCD activities, aims to help communities and individuals become self-reliant in dealing with and preventing health problems. That is, health education is done with people in the community, not for them. People in the community have valuable practical knowledge and skills that should be incorporated in planning and carrying out health education.

Step 2 (15 min)
Defining Health Education

Post the large version of the definition of health education (see following Trainer Note) and explain that an expert committee for the World Health Organization developed it. Ask them to look at the list of aims of health education that they prepared in the previous step and discuss whether or not the definition goes along with their aims.

Ask the group the following questions:

- Could you use this definition in the community to explain health education to a community health worker?

- What does this definition tell you about your tasks as a health educator?

Trainer Note

As defined by the WHO Expert committee:

"Health education in primary health care aims to foster activities that encourage people to: want to be healthy; knew how to stay healthy; do what they can individually and collectively to maintain health' and seek help when needed..

In the discussion make sure that participants recognize that health education aims to motivate and develop skills as well as knowledge. It is not limited to giving out information about health care. It also aims to insure that people use health facilities when they need them.

Step 3 (20 min)
Examples of Health Education for Individuals, Groups and Communities

Give the participants an individual health problem situation such as the one in the following Trainer Note. Ask them how they, as health educators, would help the individual solve the problem. What would they do with that person's family? In the community? Ask someone to suggest another health problem and have the participant answer the same questions.

Trainer Note			
Problem	**Individual Health Ed.**	**Family Health Ed.**	**Community Health Ed.**
Four-year old child with ring worm	Refer child to clinic Teach about cleanliness	Counsel on hygiene and disease Home visits	Village committee on sanitation Hygiene campaigns

During the discussion make the point that for effective health education, interventions should take place at all levels. Each person is a part of a family and a community that affects and is affected by that person's illness.

Step 4 (30 min)
Identifying Steps in the Health Education Process

Distribute Handout 16B (The Health Education Process) and give participants a few minutes to study it. "Walk" through the process with the group describing what happens in each of the steps. Explain that their task is to use the eight steps in the Health Education Process to develop a plan for working with the community to solve the problem presented in the handout.

When participants are clear on the process, distribute Handout 16C (Health Education Problem) and ask the group to divide into 3 small groups. Suggest that they begin by making a rough outline of what to do, then use the steps to develop a more systematic plan. Remind them to keep in mind the aims of health education listed on the wall as they

develop their plan. Tell them they have 25 minutes to work on the task in small groups; in the next step they will explain their solution to the other groups.

Trainer Note

Trainer Attachment 16B (Sample Solution to the Health Education Problem) contains an explanation and example of the steps in the health education process. Use the explanation here to help you clarify the process. Use the example case as needed in the next step after the small groups have reported their proposed solutions; it will give you ideas to suggest if some of the group's solutions are incomplete.

Step 5 (30 min)
Discussion of Application of Health Education Steps

Reconvene the large group after 25 minutes and give each small group a chance to present their solutions. Lead a discussion of the following questions:

- Are there any steps you would like to add or eliminate from the process? Why?
- Did you involve the community in all the steps of the process?
- Is there only one order in which to place the steps of the health education process?
- Did the steps help your group solve the problem?
- What did you learn from hearing the solutions of the other groups?

Close the session by explaining to the group that they will be looking at each of these steps in more detail in the remaining sessions on health education. Also, tell them that they will be using this planning process to develop a health education project plan, and to design and conduct a specific health education session. Suggest that they begin thinking about projects that they would like to work on during this training program.

Trainer Note

During the discussion make the point that the steps of the health education process are aids to help organize planning. In actual practice the order is not always clear cut. Sometimes the line between one step and another is not clear either. Often identifying and analyzing problems is done more than once. Broader objectives are set near the beginning of the project. More specific objectives for activities are set later. Monitoring and evaluation should go on throughout the project.

Handout 16A: Introduction to health education

Health education is a process through which behavior changes are effected. Health problems are rooted in specific behaviors: changing those behaviors will change a community's health status.

There are two key elements in health education. First, health education involves community problem-solving. Behavior change will probably not occur in programs

designed by outside planners; rather, it depends on the direct and ongoing involvement of the community. Community members must identify their needs, define their problems, participate in identifying program goals, priorities and methods, and share in the development of program resources and activities. This community involvement is the foundation for an effective program.
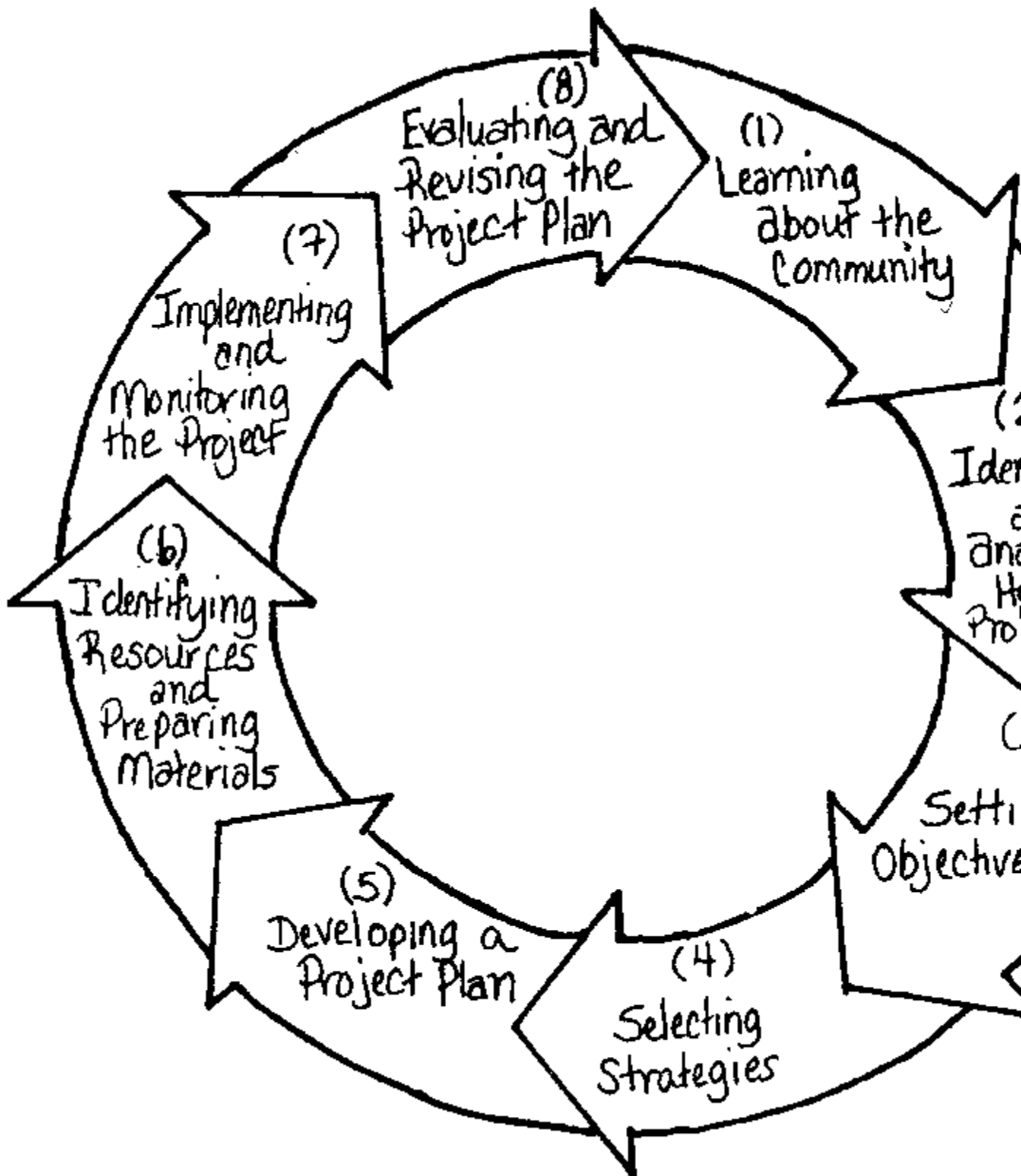
Second, health education involves community systems. Health problems in developing countries are caused by a complex interplay of many factors. The most immediately apparent may be a lack of information about illness and how health can be protected, a lack of appropriate health services, poor sanitation, malnutrition, and poverty. A health education program must incorporate these and all the other interrelated factors that contribute to the particular health problem addressed. Nor can a program be limited to those individuals whose behavior is to be changed. It must also include those friends, family, community opinion leaders and/ or institutions that influence the individual's decision to behave in a certain way. For example, a program to stop smoking among teenagers should be directed not only at the individual teen smokers but also at the teen's peer group that exerts pressure to smoke, at the teen's parents who may encourage smoking by their own smoking habits, at advertising agencies that portray smoking as glamorous, at the stores that make cigarettes available to minors, at the social and recreational activities that may foster smoking, etc. In sum, a health education program must incorporate and work with all relevant community systems.

Your role in the health education process will change according to the task at hand. You may be a catalyst initiating awareness of and desire to act on a problem; you may organize a group to address a problem; you may lead group discussions; you may assist people in learning problem-solving skills; you may help locate and mobilize resources; you may teach skills specific to a project. You may be able to develop inter-disciplinary teams -- extension workers, school teachers, health clinic personnel to work on shared problems. Since health problems are integrally related to broader community development issues, work in one sector impacts on all, A team approach can multiply the resources available to a community project as well as establish mutually reinforcing programs of community development and behavior change.

(From: Community Health Education in Developing Countries, p.1.,)

Handout 16B: The health education process

Scheme

(1) Learning about the Community

(2) Iden... ana... He... Pro...

... Setti... Objectives

(4) Selecting Strategies

(5) Developing a Project Plan

(6) Identifying Resources and Preparing Materials

(7) Implementing and Monitoring the Project

(8) Evaluating and Revising the Project Plan

(Developed by: CHP international under Peace Corps Contract no. PC-284-1011.)

Handout 16C: Health education problem

Your task is to use the steps of the health education process to work out a plan for solving the health problem described below. First decide roughly how to solve the problem then use the steps to develop a more systematic plan. Decide the order in which you will follow the steps and be prepared to explain why that is a good order.

The Problem Situation

A health Volunteer has recently arrived at her assigned health post. Her counterpart, a nurse-midwife in charge of the health post, is friendly and pleased to have help, since she is the only health worker in the community. The community has many health problems, particularly infant diarrhea. Many babies have died from dehydration resulting from the diarrhea. Mothers have never heard of mixing and giving sugar salt solution to children with diarrhea to prevent dehydration. Instead they tend to withold food and liquids, including breast milk, when diarrhea begins. Sanitation is poor. The water is collected from a stream in which people and animals walk and defecate. Women also do laundry in the stream. There are no latrines in the community and people see no reason to put scarce resources into building them. Since the water looks dirty, people frequently don't wash their hand before handling food. There is a school in the village. The school teacher is concerned about the health problems in the community and would like to help solve them. Community leaders also recognize the problem of many infant deaths but have never made a plan to do anything about it. Parents are also concerned and fearful that some bad spirits are living among them. The nurse midwife has been keeping records of the treatment and deaths of dehydrated children. There are no vehicle roads leading to the village. People with serious health problems must go to the regional health center (a two day walk) for treatment. There is no electricity. Sugar and salt are available but somewhat expensive. The health post has a few posters and the local school has paper, paint and scissors.

(Developed by: CHP international under Peace Corps Contract no. PC-284-1011.)

Trainer Attachment 16A: The aims of health education

Adapt the following examples and copy them on slips of paper for use in the activity described in Step 1. Make sure that all groups have some of the same examples of aims, so they do not debate unnecessarily over equally acceptable aims. You need 20 strips with examples and 16 strips with items that are not examples of aims of health education. Divide these into four piles so that each group gets 5 slips with good examples and slips with bad examples.

The Following are Aims of Community Health Education

- Helps people become self-reliant in dealing with health problems
- Addresses people's wants, needs, resources and social context
- Works with communities and families as well as individuals
- Considers psychological and social as well as physical well-being

- Contributes to the goals of primary health care
- Encourages people to want to be healthy
- Teaches people how to stay healthy
- Encourages people to seek help from health workers when needed.
- Strengthens health and teaching skills of health workers
- Provides socially and culturally acceptable and relevant health information
- Bases activities on careful planning, monitoring, evaluation, using measurable objectives.
- Emphasizes active participation by learners

The Following are <u>not</u> Aims of Community Health Education

- Communicates health information from experts to the public
- Persuades people to change bad health practices
- Promotes "modern" health technology to replace traditional health practices
- Discourages lay contributions to health care
- Emphasizes treatment rather than prevention of illness
- Distributes posters and pamphlets to as many places as possible
- Promotes a centralized health care service delivery
- Encourages immediate action rather than long-tern planning
- Focuses on individuals apart from their social setting.

Trainer Attachment 16B: Sample solution to the health education problem

Step Learning About the Community
1
    <u>What Happens</u>
    Learn about community problem goals, local conditions, leadership, lines of communication.

    <u>Who Does It</u>
    Health workers community leaders and others.

    <u>Outcome</u>
    Summary of health problems in the community.

    <u>Example</u>
    A health volunteer newly arrived at a rural health post, talked with her counterpart, the nurse-midwife in charge of the post, local leaders, and other people in the community about their perceptions and beliefs about health problems in the area. She looked around the area and saw dirty water sources, no latrines, and fount that people did not wash their hands before handling food. She also learned about how to behave acceptably in the village, styles of communication, and what kinds of topics she could discuss with whom. She looked at records in the health post and found many cases of infant diarrhea and deaths from dehydration.

Step 2 Identifying and Analyzing Health Problems

What Happens
Identify priority problems. Determine the probable behaviors and conditions causing the problem. (Who has the problems? Who else is affected by it? Who perceives it to be a problem? When is it a problem?) Identify which can be changed by health education and who should be involved.

Who Does It
Health workers, community leaders, and others.

Outcome
List of priority problems.

Example
She discussed her observations and conversations with her counterpart and they decided to meet with the local leaders to discuss the problems. The leaders and the health workers listed problems and identifying those most important to the community and most likely to be solvable using community resources. They decided that poor sanitation in the community was a long term project that needed action but would not provide immediate results.

They also decided that the problem of infant deaths from dehydration due to diarrhea was a problem resulting from poor sanitation that could be reduced in the short term by teaching mothers to give sugar salt solutions whenever children have diarrhea. Mothers need to learn to change. The harmful practice of withholding liquids during diarrhea (add other examples of local practices).

Step 3 Setting Objectives

What Happens
Set measurable objectives, assess potential obstacles and revise objectives.

Who Does It
Health worker and others in the community.

Outcomes
Measurable objectives

Example
The health workers and local leaders set the following objectives to solve the problems identified.:

- To reduce infant mortality from dehydration by 60% (within one year).

- To teach and motivate 60% of the child care takers (mothers, grandmothers, older siblings) to correctly mix and use sugar salt solution when children have diarrhea (within six months).

- To teach 60% of the families to build and properly use latrines (within two years).

- To teach and motivate 60% of the families in the community to wash hands before handling food.

They discussed the problem of lack of uniform measuring utensils for the sugar and salt solutions and decided they could overcome this by teaching mothers to use certain size glasses and a bottle cap to measure. They discussed the lack of good clean water supply making it difficult to practice good hygience and agreed that this obstacle required additional resources that the community would have to gather.

Step 4	Selecting Strategies

<u>What Happens</u>
Decide what community organization, training and communication is needed to accomplish objectives.

<u>Who Does It</u>
Health workers, leaders and others in the community.

<u>Outcome</u>
Integrated strategy to accomplish objectives

<u>Examples</u>
The community leaders and the health workers decided on the following strategies:

- to form a community health committee to carry-cut and monitor the project.

- to conduct demonstrations on mixing sugar salt solution with mothers who were visiting the health clinic.

- to conduct demonstrations and other pen-formal activities with school children to teach them about ORS and sanitation/personal hygiene issues.

- to have a community health fair focused on cleaning up the community and stimulating interest in building and using latrines properly.

- to conduct home visits with families who desire to construct a latrine.

- to place posters with important ORT messages in health clinic and other public facilities.

Step 5	Preparing a Project Plan

<u>What Happens</u>
Decide what community organization, training and communication is needed to accomplish objectives. Analyze resources available to carry out the objectives.

Identify and schedule specific activities Develop a plan to monitor and evaluate the project

Who Does It
Health workers, leaders and others in the community.

Outcome
Health Education Project Plan

Example
The health workers and community leaders formed a health committee of community members, school staff and health post staff. The health committee and health workers took the education strategies and worked out a design for each event. They also developed a plan to monitor and evaluate each event and the overall project. They worked out what materials and supplies would be needed and how most of the costs could be covered by the community. In addition, they scheduled the activities and assigned responsibilities to various community members. The committee held a town meeting and presented the idea of a health fair to improve sanitation and disseminate information about good health practices. They recruited volunteers for the latrine buildings project & elicited small donations from business for supplies.

Step 6 Identifying Resources and Preparing Materials

What Happens
Analyze and select human and physical resources for carrying out the planned activities.
Locate or prepare health education materials. (visual aids)
Pretest materials and techniques.
Adapt materials based on pretest.

Who Does It
Health worker and/or artist working with the community members, health committee members.

Outcome
Facilitators to lead activities pre-tested, revised educational materials, identified sources of construction materials.

Example
The nurse midwife, the health Volunteer and the school teacher had agreed to take responsibility for conducting health education activities in the community and school. The teacher assigned the older school children a project to develop posters on hygiene and sanitation. The Volunteer helped them pretest the materials in the community. The younger children developed a puppet show. The health committee began developing materials and orienting facilitators for the health fair. They also identified sources of equipment and materials for latrine construction.

Step 7	Carrying out and Monitoring the Project

What Happens
Carry cut the project plan. Monitor the project. Modify activities and materials as needed.

Who Does It
Community members with the help of health workers.

Outcome
Activities carried out. Plan modified to improve project

Example
The health committee started off the project with the health fair, and involved many community members in the preparations. The people responsible for specific sessions worked with the health Volunteer to increase their communication skills and learn more about health topics. The health Volunteer and the nurse-midwife attended the sessions and served as resource persons for health questions. At the end of each session time was left to ask participants what they learned from the session and how they could use it. The Volunteer and nurse placed the informational posters around town and monitored the community members' understanding of them. Some revisions were necessary. The Volunteer and the nurse also did home visits throughout the project, following up on health education sessions, answering questions and assessing how well the learners had mastered mixing sugar-salt solution when needed and were practicing good hygiene. The Volunteers for latrine building began visiting interested families to organize the construction process. Systems for training latrine materials and providing information on proper use and maintenance were devised.

Step 8	Evaluation and Revising the Project Plan

What Happens
Observe, interview, look at health records to determine:

- Were objectives accomplished?
- Did causes of the problem changes
- Was the problem solved?
- How could the project plan be improved?

Who Does It
The health committee with assistance from the health workers

Outcome
Follow-up activities to accomplish objectives.
Ensure long lasting improvement in health.

Revised project plan and session plans.

Example
At the end of one year the health committee assessed how well they had accomplished their objectives for that time period, and modified their plan based on their findings. They found that some mothers were not using sugar salt solution correctly and many people were not maintaining their latrines properly. Others had not built latrines.

The water shortage continued to make it difficult to practice good hygiene even though they knew what to do.

The health worker visited mothers in the home to review mixing the special drink (salt-sugar) and the school teacher worked with the children on how to teach other children about the special drink.

The village leaders worked with the volunteers to form a water committee to collect funds to improve one water supply and get technical assistance from the water and sanitation division of the regional office of the ministry of health.

(Developed by: CHP International under Peace Corps Contract No. PC-284-1011.)

Session 17: Identifying and analyzing priority health problems

Handout 17A: Defining the health problem
Handout 17B: Health problem analysis worksheet

Trainer Attachment 17A: Selecting important health problems
Trainer Attachment 17B: Examples for problem definition activity
Trainer Attachment 17C: Indentifying tee target groups for health education

TOTAL TIME: 3 hours, 30 minutes

OVERVIEW

In Sessions 9-12, participants gathered and analyzed information about community development problems related to health (Step 1 of the health education process). This session focuses on Step 2 of the process: health problem identification and analysis. Peace Corps staff, host country training staff and/or PCVs working in the region discuss local health problems. Applying insights gained in Session 8 (Factors Affecting Health), participants and resource people identify practices associated with the health problems in the community. They consider potential causes of the problems and related behaviors. They also identify health practices and target groups that can be affected by health education. This information will provide the basis to write health education objectives in the next session.

OBJECTIVES

• To identify a priority health problem. (Steps 1, 2)
• To analyze the conditions and practices affecting that problem. (Steps 2, 3)
• To identify health-related practices that can and should be changed or reinforced through health education. (Steps 3, 4)

RESOURCES

- Helping Health Workers Learn, Chapter 7.
- On Being in Charge, pp. 278-283
- Community, Culture, and Care

Handouts:

- 17A Defining the Health Problem
- 17B Health Problem Analysis Worksheet

Trainer Attachment:

- 17A Selecting Important Health Problems
- 17B Examples for Problem Definition Activity
- 17C Identifying the Target Groups for Health Education

MATERIALS

Newsprint, markers

PROCEDURE

Trainer Note

In advance of Session 17, invite Peace Corps staff, host country training staff and PCVs who have worked in the local area and have an understanding of local health practices and problems. If possible also invite one or two community members to participate. Explain to all these resource people that they will be asked to share their ideas and experiences regarding local problems, beliefs and behaviors that affect health. Their participation is essential to emphasize the importance of community involvement in any project development.

Prior to the session, distribute and ask participants to read Handout 17A (Defining the Health Problem). Also ask them to read Chapter 7 of Helping Health Workers Learns (Helping People Look at Their Customs and Beliefs). Explain that in the session they will have the opportunity to learn about local health problems from resource people. Emphasize that it will be their responsibility to ask the questions necessary to gather this information in a culturally appropriate way. If necessary, arrange for an interpreter for the session.

Step 1 (15 min)
Factors That Help or Hinder Behavior Change

Give a brief overview of the session. Explain to participants that they will work together with resource people to identify priority health problems in the local community and analyse helpful and harmful behaviors or practices associated with those problems. Tell participants that before they begin analysing other people's health practices, it is useful to look at some of their own behaviors toward health and discuss reasons why people might be resistant to change.

Ask everyone to hold up one hand. Ask them to put their hand down if they cannot answer yes to one of the following questions:

- I never smoke cigarettes.
- I always wash my hands with soap and water before and after I eat.
- When I am sick I always do what the doctor or nurse tells me to do.
- I always wear a seat belt when I ride in a car.
- I never skip meals.
- I always drink plenty of liquids when I have diarrhea rather than taking something to stop it up.

Ask participants to think about and discuss why they behave in ways that they know are harmful to their health.

List their reasons on newsprint and ask them to discuss questions such as the following:

- What keeps you from changing a behavior that you know is harmful to your health?

- What kinds of questions do you ask when you are considering changing a habit?

- What conditions could help you change these habits?

- Do people in the community ask themselves the same kinds of questions before changing habits or deciding to participate in a health project?

- What keeps them from changing harmful habits?

- What conditions could help them change harmful habits?

Trainer Note

Some of the reasons for continuing habits harmful to health that you can expect from the discussion are:

- They do not perceive themselves as susceptible to any illness or accident.
- They do not realize the severity of the illness
- The new behavior does not fit their social or cultural norms
- They prefer to use their resources in different ways.
- Friends or family would be angry or upset if they changed the old behavior

Be sure to make the point that people's behavior is influenced by many factors, not just knowledge alone. Social influence, resources, attitudes, and perceptions also influence behavior.

Same of the questions people ask before changing a habit or adopting a new practice that should come out of the discussion are:

- What will I gain from this change?
- How soon will I enjoy this benefit?
- What can I lose from making the change?
- What kinds of economic resources, knowledge and skill are needed to make the change?
- How much of my time will it take?
- Will it conflict with other more important activities?
- Will I get as much out of the change as my neighbor, my spouse, others?

Step 2 (30 min)
Recognizing Health Problems

Explain to the group that as they begin identifying health problems, they may have same difficulty distinguishing problems, causes, and solutions. Give an example to illustrate the difference between the three.

Post your list of example problems (based on Trainer Attachment 17B, Examples for Problem Definition Activity). Ask participants to identify which items an the list are actually problems. Have someone check these. If an item is not a problem, the participants should specify what is the true problem. As the group identifies the "true problem", write it on the list and place a check beside it.

Trainer Note

Use Trainer Attachment 17A (Selecting Important Health Problems) as background for guiding this discussion.

The following example illustrates the distinction between problems, causes, and solutions. A health worker visited a village where many children were suffering from diarrhea, decided that the problem was lack of latrines, and organized a latrine building campaign to solve the problem. You can use the following questions to clarify the distinction between problems, causes, and solutions in this situation:

- Did the health worker define the real problem?
- What was the real problem?

Participants should respond that the real problem was intestinal diseases such as diarrhea! diseases and worms transmitted by feces. Possible causes might have included a contaminated water supply, too many flies, poor sanitation, and so forth. Recognizing intestinal disease as the real problem, latrines are only part of the solution. Also important are protection of food, personal hygiene and oral rehydration therapy for children with diarrhea.

Step 3 (15 min)
Introducing the Health Problem Analysis Worksheet

Distribute Handout 17B (Health Problem Analysis Worksheet). Give an example (similar to the example in Trainer Attachment 17A) illustrating how to fill in the sheet. Allow time for questions and discussion of the sheet. Modify the items on the sheet if necessary.

Explain to participants that in the next step they will break into groups and with the help of a resource person identify and analyse a priority health problem in the local community. Using the worksheet as a tool, they will:

- Identify one priority health problem.
- Discuss the causes of the problem.
- Identify things local people do that affect the problem positively or negatively.
- Decide who should be the target group for health education. (see Trainer Attachment 17C, Identifying the Target Group).

15 Minute Break

Step 4 (90 min)
Analyzing Community Health Problems

Welcome the resource people from Peace Corps, the training staff and the local area. Thank them for
their interest in the training course. Divide participants into three or four groups so that there is at least one visitor in each group.

Ask the groups to conduct a discussion of the health problems and practices in the community.

Have them follow this discussion by filling in Handout 17A (Health Problem Analysis Worksheet) with the resource people so that they can present the results to the larger group.

Step 5 (45 min)
Reporting on Problem Analysis

Ask people from each group to report what they learned from discussing and completing the form. Close the session by telling the group they will use the results of their problem analysis to develop health education objectives during the next session.

Trainer Note

By the end of this discussion you will have the following information:

- Behaviors affecting the health problem categorized as harmful, harmless or beneficial.
- Behaviors that can be changed through health education.
- Ranking of behaviors in terms of priority for change.
- Target groups and individuals with whom you will work to encourage beneficial behaviors and change harmful behaviors.

Handout 17A: Defining the health problem

The first requirement in banging about change is for people to agree that there is a problem and that something should be done about it. The challenge is to avoid simply looking for things which the people do which are unhealthful. Search for the meaning of existing practices. For example, you may find that the community women use the banks of the river or pond for toilets and you may try to convince the community to build and use household privies. This effort could easily fail if a new means is not provided for the women to meet and chat each morning, such as at a protected well site.

To say that there is a health problem is a very general statement which covers many specific situations. In order to plan your work, to set goals and to go into action, you must be able to define the specific problem on which you wish to work.

To help you define it and involve the community in doing so, talk with the local leaders and villagers. Use a questioning approach in an attempt to find out how they view the health situation. Start from the general and work down to the specific problems you have in mind. For example, if you found a very unsanitary environment in your survey of the community you might contact the leaders and proceed as follows:

1. "What kinds of things need to be done in this village?"

2. "What are the illnesses most common in this village?"

3. "What do people die of, mainly?" "Are there many children under 5 years old dying? it so, what from?"

4. "Do they have diarrhea, dysentery, cholera, typhoid, worms in this village?" "What causes these illnesses?"

5. "Are there any latrines in the village?" "What do people use?"

6. "Has any thought been given to building latrines?"

7. "Why would some people refuse to use them?"

8. "If these diseases could largely be stopped if the people themselves decided they wanted to, would people in the village want to plan together to do away with diarrhea, dysentery, cholera, worms, etc.?"

The problems you have already uncovered in the forma village survey can be compared with the views expressed informally through this type of questioning. In fact, much of the essential information may have already been gathered while you were first getting acquainted with the community.

The place for further problem identification and definition is with the Health Committee. Here are a few steps to help the Committee define specific health problems.

• What is the nature of the problem? What is the problem situation, behavior or condition?

• What is the extent of the problem? How bad is the situation? How significant is the problem in terms of the community?

• Whom does the problem affect? What groups or individuals are affected?

• What are the size, the characteristics and the nature of the "target" group?

• Where does the problem occur? What geographic area is affected? What is its size and nature?

• How long has the problem existed? is it improving or not?

• How much would people be willing to contribute in work, money, land for a well, sand for concrete, labor, etc.?

(Community Health Education in Developing Countries. pp. 19-29.)

Handout 17B: Health problem analysis worksheet

1. Identify priority problems that affect health

a) List four health problems.

b) Ask the four questions listed below for each health problem.

Health Problems

_____ 1. Does it affect many peoples (is it a common problem?)

_____ 2. Do many people feel it is a problem? (is it widely recognized as a problem?)

_____ 3. Does it cause many deaths or serious illnesses? (is it a serious problem?)

_____ 4. Can it be solved using community resources?

c) Select the highest priority problem. (Make certain answer to question 4 is yes.)

2. Look at the causes of the problem, particularly things that people in the community do, that affect the problem to increase it or decrease it. Fill in the answers to the questions in the blanks below.

Priority Problem	What Causes It?

3. Who does things that help reduce the problem?
What are some reasons for these practices?
Which practices are most important to encourage? Why?
How can we encourage these people to continue those practices?

Helpful Practice	Who does this?	Can We Encourage Them? How?

4. What kinds of practices increase the problem? Who does these things? Which practices have the highest priority for changes (which have most effect on the problem and are most likely to change through health education?)

Can we change these people's practices? How?

Harmful Practice	Who does this?	Can We Change this Practice? How?

5. What groups and individuals can we work with in the community to help these people change harmful behavior and encourage helpful behavior.

Groups/Individuals	How They Can Help

6. Summarize your conclusions on a large sheet of newsprint so you can share them with the other groups.

Trainer Attachment 17A: Selecting important health problems

What is a problem?

Here are two useful definitions of a problem:

- A problem is a difficulty or obstacle seen to exist between a present situation and a desired future objective.

- A problem is a perceived gap between what is and what should be.

It is important to recognize that people look at (perceive - feel about) problems differently.

For example:

A village has a contaminated water supply, which may be resulting in outbreaks of diarrhoea.

That is a situation.

If the villagers do not recognize that the water is contaminated or that it is responsible for diarrhoea, then, to the villagers, this situation is not a problem

But the health worker 'sees' or 'perceives' the gap between what is and what could be. This gap is a problem, to the health worker.

A 'problem' as seen by & health worker

It is important to define a problem clearly; otherwise an attempted solution may be wrong. Many health problems have <u>several</u> causes. It is easy to mistake a cause for a problem; then one cease may be removed without solving the problem.

Consider the following:

1. Many people have diarrhoea
2. The well-water is contaminated
3. There are too many flies
4. The sanitation is poor
5. The people need health education.

Which is the problem?

The problem is 'many people have diarrhoea'. Statements 2, 3 and 4 are possible causes of the problem.

If the problem is stated as 'sanitation is poor', and the effort at solving the problem is concerned only with improved sanitation, the diarrhoea will NOT disappear. It may be spread by flies or contaminated water.

In analysing problems:

define what the problem is
find all possible causes of the problem
look for ways to remove causes.

<u>To select important problems</u> is useful to group all the problems under the following headings:

<u>Diseases or health problems</u> e.g.,

Malaria
Malnutrition
Respiratory diseases
Diarrhoea

<u>Health service problems</u> e.g.,

Insufficient drugs
Lack of qualified personnel
Difficulty in visiting outlying areas

<u>Community problems</u> e.g.,

Inadequate water supply
No primary education
People have to go a long way for health care
Poor harvest two years running
Male population leaving the land to work in industry

The health worker is always faced with more than one problem at a time and cannot solve all of them at once. So the problems are studied and the most important are given priority; i.e., these problems will be tackled first. Resources will be used mainly for these problems.

When attempting to select priority problems one must look carefully for the real causes especially for purposes of health programme planning. Many health problems could best be cured by more and better food, clean water, education, and solid safe housing. When seeking information it is important to look also outside the health field.

One way to determine problem priorities is to set criteria. A criterion is a principle or a standard by which one can measure or judge something. A set of criteria may be listed to form a check-list such as the following:

Does the problem:

- affect large numbers of people, e.g., malaria, leprosy?

- cause high infant mortality, e.g., malnutrition, neonatal tetanus?

- affect maternal health, e.g., complications of pregnancy, multiple pregnancies, post-partum haemorrhage?

- affect children and young persons, e.g., tuberculosis, road accidents, home accidents?

- cause chronic conditions and handicap, e.g., blindness, trachoma, poliomyelitis?

- affect rural development, e.g., river blindness, sleeping sickness?

- cause worry to the community?

If the answer to any of the above questions is YES, the problem is a priority one.

A problem may receive priority attention also if there is a simple way to deal with it.

Example of a list of Community Problems (applying Step 2)

After reviewing all the information available a number of problems will emerge. A typical list might read as follows:

Diseases and health problems

Malaria	low birth weights of infants
respiratory infections	leprosy
diarrhoea	tuberculosis
complications of pregnancy and labour	hepatitis

eye infections	skin infections
insect and snake bites	ear infections
	malnutrition (and so on, according to the area).

Other problems that may emerge:

<u>Communications</u>

Bad roads	inadequate transport
seasonal bad weather	flooding
avalanches, etc.	

<u>Health services</u>

Health personnel do not go out to the community	insufficient staff
	insufficient drugs
lack of material for dressings and treatments	inadequate working conditions
	lack of transport.

<u>Other problems affecting health</u>

Illiteracy	rodents, and animals roaming freely
lack of sanitation	drought
contaminated water supply	unemployment
bad and overcrowded housing.	

<u>To choose priority problems</u> from the above list apply the selection criteria on page 2 the more important problems will become obvious, e.g.,:

<u>Health problems</u>

Complications of labour

Low birth weight of infants
Malnutrition

Health service problems

Insufficient visits to the community
Lack of transport.

Community problems

Lack of sanitation.

Note: Many problems are outside the health sector but are important because they affect health. The health worker can get health education of the people as a priority, to inform them about those problems and teach them how to prevent and overcome them. He may cooperate with the teacher in the school, or with the literacy programme, to prepare material so that people learn about health at the same time as they learn to read.

Contaminated water or, in some areas, lack of water are not problems the health worker can tackle alone. He can get in touch with the responsible people and cooperate with them. He must consider all this when he makes a plan of work. This may include, e.g., education of, and participation with, the community in a latrine-building programme or water conservation in the home.

The District of Vosokcham

Nurse-Midwife Shireen has collected and analysed information in this district.

She notes that complications of pregnancy and delivery are high on the list of problems. She knows that the government is concerned about the number of women dying during childbirth, as well as the number of children born dead or dying soon after birth.

The national objective to reduce maternal mortality by providing antenatal care and increasing health coverage of pregnant women is being emphasized at the middle level of the health service throughout the country.

After deciding that complications of pregnancy and delivery are priority problems in her district Nurse/Midwife Shireen begins to organize an antenatal programme.

The district of Vosokcham is divided into three health sectors: "A", "B", "C". She begins in Health Sector "A".

Note that the approach taken closely follows that taken by Maria in the example given in the introduction to this Part: that is, she includes the community in planning and programming, as explained in the following chapters.

SUMMARY

AT THE COMPLETION OF STEP 2 THERE SHOULD BE A LIST OF THE

> IMPORTANT PROBLEMS OF THE COMMUNITY
>
> - CLEARLY DEFINED - WITH POSSIBLE CAUSES, OR
> - ANALYSED IN ORDER OF IMPORTANCE.

(From : WHO. <u>On Being in Charge</u>. pp. 278-283.)

Trainer Attachment 17B: Examples for problem definition activity

Write some examples such as the following on newsprint and ask participants to check the ones that are real problems. For those that are not checked, ask them to explain what might be the true problem.

1. Lack of latrines
2. Malaria
3. Mobile health teams never visit
4. Too many flies
5. Women deliver babies at home
6. Domestic animals run loose
7. Intestinal worms
8. There is no doctor
9. People drink too much alcohol
10. There are no vaccines for children

Numbers 1, 3, 4, 5, 6, 8, 10 are not true problems.

Handout 17A (Selecting Important Problems) also discusses how to identify true problems.

(From: School of Public Health, The university of north Carolina at Chapel Hill. Practical Training in Health Education [Manual for Cameroon])

Trainer Attachment 17C: Indentifying tee target groups for health education

After defining a health problem, it is fairly easy to identify the group of people affected by the problem or at risk for being affected by the problem, These people should be the target for most of the health education interventions. They should also be the primary group involved in the planning of health projects. Sometimes there are others, not directly affected by the problem, who have strong influence over the affected group (for example, parents, teachers, religious leaders, spouses). These people should also be encouraged to participate in the planning and carrying out of the project.

<u>Primary target group</u>: the people affected by the health problem.

<u>Intermediate target group</u>: the people who control needed resources for health behavior and who can inform and motivate people to adopt healthy practices.

(Based on: L. Green. Guidelines for health Education in Maternal and Child Health. P.10.)

Session 18: Writing objectives for health education

Handout 18A: Setting a project goal and objectives
Handout 18B: How to write objectives

Trainer Attachment 18A: Examples of complete and incomplete project objectives
Trainer Attachment 18B: Examples of program, project and health education objectives

TOTAL TIME: 2 hours

OVERVIEW

Once the community and health educator identify priority health problems, assess behaviors associated with those problems, identify key factors contributing to those behaviors, and select target groups, the next step is to write health education objectives. These objectives state, in measurable terms, what the target persons or groups will do as a result of health education interventions. In this session participants focus on writing clear, relevant and feasible health education objectives that contribute to some of the program goals and objectives discussed in Session 6 (Health Care Delivery Systems).

OBJECTIVES

• To write measurable objectives for health education interventions, based on community information, that contribute to larger health program objectives. (Steps 1, 2)

• To critique health education objectives based on feasibility, relevance, clarity and whether they can be observed and measured. (Steps 3, 4)

RESOURCES

- <u>On Being in Charge</u>, pp. 288-295
- <u>Community Health Education in Developing Countries</u>, pp. 21-26.

Handouts:

- 17B Health Problem Analysis Worksheet (From Session 17)
- 18A Setting a Project Goal and Objective
- 18B How to Write Objectives

Trainer Attachments:

- 18A Examples of Complete and Incomplete Project Objectives
- 18B Examples of Program, Project and Health Education Objectives

MATERIALS

Newsprint, markers.

PROCEDURE

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Trainer Note

Prior to the session adapt the examples of Health Education Objectives (Trainer Attachments 18A and 18B) to fit the participants' technical program and local conditions. Read Handout 18B (How to Write Objectives) as background for Steps 1 and 2 of this session. You can also refer to Module 7, Session 48 (Behavioral Training Objectives) of this manual, for a more detailed discussion of behavioral objectives for training community health workers. Session 48 (page 3) also discusses the difference between learning objectives and behavioral objectives.

Distribute Handout 18A (Setting a Project Goal and Objectives) and ask participants to read it before the session.

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Step 1 (20 min)
Discussion: What in a Good Objective?

Introduce the session by noting that even though people agree that a problem exists and is important, they are unlikely to solve the problem unless they can agree on what action to take; agreeing on measurable objectives is the best way to start developing such a plan of action. Tell participants that they will practice writing and critiquing objectives during this session, but first they need to establish what constitutes a good objective.

Use Trainer Attachment 18A (Examples of Complete and Incomplete Objectives) as a model for writing complete and incomplete objectives. Write a good and bad version of the same objective and ask participants which one they would use if they were planning a project on that topic. Ask them to explain their selection.

Use the outcome of the discussion to develop a list entitled "What Makes a Good Objective?". Some questions you can use to guide the discussion are:

- Why is it important to state, in measurable terms what you expect as an outcome of the project?

- What kind of information do you need to include in the objective?

- What do you do with a clear, measurable objective that is impossible to achieve?

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Trainer Note

The conclusions about what information belongs in an objective should include:

- <u>Who</u> will do the changing?

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- <u>What</u> needs to change?
- <u>How much</u> change?
- <u>When</u>? By what time or date?
- <u>Where</u> will the change occur?

The standards for identifying a good objective should include:

- Measurable (based on behavior)
- Relevant (related to the problem at hand)
- Feasible (has a reasonable chance for success)

Be sure to have the group go through several project level objectives looking for who, what, how much when and where. For the same objectives ask if they are measurable, relevant and feasible.

Distribute Handout 18B as a summary of this step and information they can easily refer back to during this session and in their future work.

Step 2 (25 min)
Identifying Objectives for Different Levels of the Health System

Use Trainer Attachment 18B (Examples of Objectives for Programs, Projects and Health Education) to:

- First, write a national level program objective and ask participants to assess whether it is a good objective.

- Second, write a community level project objective that contributes to accomplishing the national program objective. Ask them to assess whether that example is also a good objective.

- Third, write a health education objective that contributes to achieving the project objectives. Ask them if it is a good objective.

- Finally, ask someone to explain how the three kinds of objectives relate to each other.

Trainer Note

By the end of this exercise, be sure the group understands that:

- Every objective, whatever the level, answers the question, "<u>who</u> is expected to do <u>how much</u> of what, <u>by when</u> and <u>where</u>?" Each objective states this information in relation to the respective level of health intervention.

- Program, project, and health education objectives are interlinked; health education objectives are stepping stones toward accomplishing projects and projects contribute to acheiving program objectives.

- Health education objectives refer to the specific skills, knowledge, attitudes or organization needed to accomplish the project objective; as such they provide a guide for

the kinds of health education techniques and methods necessary to meet the objective.

- While PCVs need to be aware of existing program objectives, they will unlikely be involved in writing them. Their primary focus will be on developing health education objectives.

Step 3 (50 min)
Practice Writing Objectives

Ask participants to use the information on Handout 17B (Health Problem Analysis Worksheet) and what they learned about national and regional health programs in Session 6 (Health Care Delivery Systems) to write one or two health education objectives that:

- meet the standards for a good objective, and
- contribute toward accomplishing the goals and objectives of an ongoing health project.

Give them 20 minutes to do this. Encourage them to ask for help from you or other participants if they have difficulty.

After 20 minutes ask one person to write their objective on newsprint. Have the group review it to see if it meets the standards of a good objective.

Ask everyone to exchange their objectives with the person next to them. Ask them to review their partner's objective to see if it meets the standards, and explain their conclusions to their partner. Circulate around the group to answer questions and make sure that the reviewers are applying the standards for a good objective and considering whether the objective contributes to the national program objective. Ask the participants to revise their objectives, based on the comments they have received.

Trainer Note

The health education objective they write should be based on the problems identified in Session 17. To make the task easier for the participants you may want to prepare and post several health project objectives for these problems from which they can develop specific health education objectives.

Step 4 (15 min)
Session Summary

Give the participants an opportunity to ask any other questions they may have about writing good objectives.

Explain that they will use these project objectives and their health education objectives during future sessions.

Handout 18A: Setting a project goal and objectives

People can agree that a problem exists and is important and still not solve it. This can happen even if everyone agrees that something should be done. People must agree on what they will do about a problem.

A project will not succeed unless it has goals which are based on the problems agreed upon and defined by community representatives. The goals for a project are taken from the important health problem identified in the community. For example, if the problem identified was too many people sick from amoebiasis, the goal would be to reduce the occurrence of amoebiasis in the community.

From the goals of the project objectives, a Plan of Action, and evaluation methods will be developed and will allow you to assess a change. For example. merely to say "To improve sanitary conditions" leaves you no means with which to determine your achievements. If you had said "To install 35 latrines" you would then have some means of objective evaluation.

In completed form, an objective correctly written might appear like this:

What	(r)	The number of sanitary latrines used
Who	(r)	By Families
How much	(r)	will increase by 25%
Where	(r)	in Community Y
When	(r)	in the next three months

You will note that this objective has been written in behavioral terms, i.e., privies will be used. Obviously, just having such facilities can be misleading. You can also write educational goals in terms of the numbers of people who will understand or believe certain things. Once you have some baseline data, you can also measure increases in healthful attitudes or behavior.

Two further points in relation to defining the goal and current writing objectives must be taken into consideration. First, they must be related to the problem at hand. For instance, if the current problem under consideration is an unsanitary environment, then the promotion of the construction of a school would not be a goal relevant to the problem. That is, achievement of the goal would have little, if any, effect on the problem.

A final point is that the goal be possible to achieve. There should be a reasonable chance for success. If, for example, the community cries for the assignment of a doctor to their village and you know that the priorities are for preventing disease and that there is a great shortage of available doctors, then why attempt it? Point out these facts to the leaders and consider more realistic goals if the goal is impossible to achieve from the outset, then embarking upon the project will only lead to failure and lose for you the trust and cooperation of the community you worked so hard to gain. Consider your resources and obstacles. Be realistic. Start with goals which can be achieved.

It is true that many goals take longer to reach than others, but this alone should not be grounds for dropping them. "Long-term goals" may take as long as five years or logger to achieve. Usually, on the path toward reaching them, you will find several sub-goals or "short-term goals." These are the stepping stones to a larger goal; they can be considered projects in themselves.

For example, the problem encountered may be the high rate of tuberculosis cases in the community. The long-term goal might be a decrease in the morbidity rate (number of cases). But there are several approaches: treatment of existing cases, prevention of new ones, or education about the disease. Any one of these could be considered a short-term god. Short-term goals are usually more specific and, as their name implies, involve projects of Short-term duration. So, remember. Whether it be a long-term goal or a short-term goal, the goal and its objectives must be:

1. *Measurable*
2. *Relevant*
3. *Possible to achieve*

Now that the community teas identified and defined a problem and has set goals, what do you want the outcome of your efforts to be? The answers to the following questions will allow you to set the objectives which must be achieved in order to accomplish your goal. Each objective should describe specific changes that must be achieved to accomplish the goal of the project:

• *What* do you want to change?
• *How much* change do you want?
• *For whom* or *for what* do you want the change?
• *Where* do you wish the change to occur?
• *When* ? By *what* time or date?

All of these questions must be answered at the outset of the plan for change so that you will be able to check your progress along the way. These objectives must be measurable.

(From: Community Health Education in Developing Countries. pp. 21-22)

Handout 18B: How to write objectives

Objectives should be expressed in terms of outcomes. Each objective should answer the question, Who do you expect to do how much of what by when and where?

Who: target groups or individuals expected to change

What: the action, change in behavior or health practice expected.

How much: the extent of change expected (such as number of people with improved health status).

When: when desired condition will be accomplished

Where: place in which change will be observed (usually implied within the specification of who)

The following steps will help you write complete objectives:

1. Write down WHO is the subject of the objective. For example: Mothers of infants between nine months and one year old.

2. Write out WHAT the Job or task that will be done, or the change expected: Mothers of infants between nine months and one year old will have them vaccinated for measles.

3. Add HOW MUCH quantity, quality and/or time standers that apply to the objective: 80% of the mothers of infants between nine months and one year old will have them vaccinated for measles.

4. Add WHEN this will occur: 80% of the mothers of infants between nine months and one year old will have them vaccinated for measles at nine months of age.

5. Add WHERE this will occur: 80% of the mothers of infants between nine months and under one year old will have them vaccinated for measles at nine months of age at the community health post.

(Adapted from: Michalak and Yager, Making the Training Process Work. pp. 67-72.)
Peace Corps, A Trainers' Resource Guide (DRAFT)
INTRAH Draft Training Materials.)

Trainer Attachment 18A: Examples of complete and incomplete project objectives

Please adapt these examples to reflect the problems identified by the participants during Session 17.

1. More parents will use Oral Rehydration when their children have diarrhea.

2. Within six months parents will give oral Dehydration therapy to 70% of the children in the community under five who have signs of diarrhea and/or dehydration.

3. CHW's will teach mothers to prepare nourishing food for other poorly nourished children.

4. Within three months, CHW's will identify and teach 50% of the mothers of malnourished children in the community how to prepare locally available foods to treat their children.

5. More children will be vaccinated to prevent measles.

6. Within one year mothers will bring 80% of the children in the community, who are less than 1 year old, to the health clinic for measles vaccination.

Trainer Attachment 18B: Examples of program, project and health education objectives

The following set of examples illustrates how objectives for projects and sessions can contribute to national program goals and objectives.

Overall Program Goal:

To increase the survival rate of children under the age of five years through raising the quality of under-fives' health care and promoting the use of preventive health measures for this target group.

1. Program Objective:

To reduce the mortality rate due to diarrhea in Regions A & B in children under five by 10% within the first year and an additional 57% over the next two years.

Project Objective:

Within six months, parents will treat 15% of the children in the community under five who have signs of diarrhea and/or dehydration, promptly and appropriately with Oral Rehydration Therapy.

Health Education Objective:

By the end of 4 months, 10% of community members will be able to mix and administer ORS packets and homemade sugar-salt solution as prescribed by the MOH and Who.

CHWS' by the end of a training-of-trainers workshop, will be able to use the WHO treatment chart and correctly distinguish between cases of mild and severe dehydration in children with diarrhea. They will also be able to facilitate ORT demonstration session with community members.

2. Program Objective:

Malnutrition will be reduced in Region X by 18% within the first two years and continue until the national average is reached.

Project Objective:

Within three months, CHW's will identify and teach 50% of the mothers of malnourished children in the community how to prepare locally available foods to treat these children.

Health Education Objective:

CHW's who attend the training session will be able to accurately assess the nutritional status of the children in the community using three anthropometric techniques.

60% of the mothers who attend health education sessions on food preparation for malnourished children will be able to prepare, by the fifth session, three nutritious dishes using locally grown foodstuffs.

3. Program Objective:

Within Region D, after one year of instituting an EPI program the morbidity rate due to measles will be reduced by 66%.

Project Objective:

Within one year, 80% of the mothers with infants between 9 months and one year will have them vaccinated for measles at the health post.

Health Education Objectives:

90% of all mothers in the community having a child less than one year old, who participated in the health education sessions during prenatal and postnatal checkups, will correctly explain to at least one other mother why it is important to immunize children at nine months.

Within six weeks at least 80% of the community will receive information via flyers, displays, and community health talks by health workers, about the need for and times when children under one year should to be taken to the clinic to receive their measles immunization.

Session 19: Selecting health education strategies

Handout 19A: Health education strategies
Handout 19B: Examples of health education strategies
Handout 19C: Suggestions for selecting health education strategies

TOTAL TIME: 1 hour, 30 minutes

OVERVIEW

Once the health educator writes objectives and considers obstacles, she or he is ready to develop a health education strategy with the help of the community. Within health education, there are three main categories of strategies: 1) Community Organization, 2)

Training, and 3) Communication. Each of these categories include a number of specific techniques which may be selected and combined to accomplish a given objective. During this short session, participants work in small groups to examine each of the three categories of health strategies and practice selecting and combining appropriate strategies and techniques to accomplish sample objectives. In treating the strategy of community organization, Trainees will be able to draw on what they've learned during Session 14 about organizing and involving community members in PHC projects. The other two strategies will be examined in depth during the remainder of this Module and Module 7, Training of Trainers.

OBJECTIVES

• To describe the three categories of health education strategies: community organization, training, and communication. (Steps 1, 2)

• To identify techniques in each of the three categories of strategies. (Steps 1, 2)

• To identify ways to select and combine categories of health education strategies and their techniques to develop a health education plan. (Step 3)

RESOURCES

Handouts:

- 19A Health Education Strategies
- 19B Examples of Health Education Strategies
- 19C Suggestions for Selecting Health Education Strategies

MATERIALS

Newsprint and markers

PROCEDURE

Trainer Note

Prior to this session, read Handout 19B (Examples of Health Education Strategies) which explains and illustrates the three categories of strategies and how they can be combined in a plan. This will help you to lead the discussion in Step 2 and enable you to easily give additional examples if needed.

Step 1 (30 min)
Examining Three Categories of Health Education Strategies

Distribute and have participants read Handouts 19A (Health Education Strategies) and 19B (Examples of Health Education Strategies). Answer any questions the group may have regarding the three types of strategies and help them understand how the selection of strategies fits into the overall health education process.

Have participants practice selecting strategies for one of the health problems they worked with during Sessions 17 and 18. To do this, divide them into three small groups and

assign one of the three categories to each group (organizational, training, communication). Ask the groups to take no more than 15 minutes to describe what a person taking their assigned strategy would do for health education in their problem situation.

Trainer Note

To help participants understand the concept of organizational strategy, refer them back to Session 14 (Community Involvement). In the context of the CCCD Manual, community "organization", "participation", and "involvement" are all synonymous terms. Also, explain to the group that they will be learning and using a number of techniques for communication and training during the remainder of the Module and during the Training of Trainers Modules.

Step 2 (30 min)
Comparing The Three Strategies

Ask each group to identify their category (Organization, Training, Communication) and present the strategy and specific techniques they would apply to the problem situation. Lead a discussion of the strengths and weaknesses of each strategy and the associated techniques. Discuss ways that they could combine the three types of strategies for a more effective response to the problem.

Trainer Note

The following points should come out of the discussion:

- the importance of applying a good knowledge of values and practices of the people for whom the health education is intended.

- the need to involve the community in deciding the strategies that will work best.

- increasing strengths and reducing weaknesses of particular techniques by combining them.

- the need to base a health education strategy on health education objectives.

- the need for integrated strategies which use a combination of techniques from the different categories to address the health problem.

To help participants understand the link between health education objectives and strategies, ask them to refer back to some of the sample objectives presented during Session 18. Explain that a key to selecting appropriate strategies is recognizing what kind of change is to occur if the objective is accomplished. Is the objective primarily concerned with a change in knowledge, attitude, skill, social reinforcement, or some other area affecting behavior? When the health educator has identified the type of change called for in the objective, then he or she can match the objective with the strategy or combination of strategies most likely to facilitate the change.

Step 3 (30 min)
Combining Strategies

Distribute Handout 19C (Suggestions for Selecting Health Education Strategies). Ask participants to pair up with the same person they worked with during Sessions 17 and 18. Have them develop a first draft of a health education strategy that addresses one of their problems and health education objectives. Tell them to use any combination of the three categories and techniques that seems appropriate.

When they have completed the task, ask them to post their drafts. Allow time for participants to look at and comment on each other's strategies. Add your own comments as well. Explain that they will be revising these draft strategies in later sessions.

Trainer Note

Take time to review and comment on each strategy after the session. If some participants appear to have difficulty in understanding and planning health education strategies, ask participants with some background in health education to provide peer tutoring.

Handout 19A: Health education strategies

Organizational Strategies

Goal: To help people identify problems and organize to solve them through

• community development (or locality development)
• social action
• organizational development

Training strategies

Goal: To help provide participatory learning experiences to develop skills and change attitudes to improve health through

• skills development through practice
• simulation and games (socio-drama, role playing, case studies)
• inquiry learning (problem-solving, discovery approach)
• group discussion (also a "communications" method, see below)
• modeling (demonstrating desirable behaviors)

Communication Strategies

Goal: To provide information about health to educate and motivate the public through

• lecture-discussion
• individual counseling or instruction (home visits, self-instructional courses, correspondence courses)

• audio-visual aids
• educational television and radio
• mass media (electronic and print)

(Adapted From: Health Education Planning: A Diagnostic Approach.)

Handout 19B: Examples of health education strategies

Application of Health Education to Domestic Water Supply and Sanitation Projects The goal of health education in water supply and sanitation projects is to enable individuals and communities to realize the health benefits of these projects, i.e., to reduce the risks to their health from poor water and sanitation practices and thus improve the overall quality of life. Health education program objectives for achieving this goal are aimed at:

• the development of knowledge, values, beliefs, attitudes and skills which facilitate behavior changes; and

• the creation of an environment supportive of change

Water supply and sanitation projects usually require the acceptance, utilization and continuous maintenance of new, perhaps unfamiliar, technologies by an entire community. However, in many cases the people often do not participate in the selection of these technologies. Further, the nature of the health problems resulting from poor water and sanitation practices is such that isolated individual behavioral change does not necessarily result in desired health outcomes. Collective behavioral change is required in order to achieve measurable impact on both individual and community health status.

Thus, health education program components must be concerned with "combination of learning experiences" which will facilitate behavioral change through the development and maintenance of new social norms for specific behavior related to the following water and sanitation program elements:

• choice of technologies
• acceptance of technologies
• planning for facilities installation (sitting, timing, etc.)
• installation of facilities (funds, labor, materials)
• repair and maintenance of facilities
• appropriate use of facilities

The importance of health education interventions in any of these elements will vary depending upon each community's situation. The goal, however, is to work in such a way that continuous maintenance is assured and thus appropriate use is facilitated.

The basic strategy is to establish new or reinforce existing social structures (e.g., community leadership committees, neighborhood discussion groups, mothers' clubs, etc.) for diffusing knowledge and skills and for providing social support capable of reinforcing the adoption of new behavior.

In this context, organizational methods--in the form of <u>community organization</u>, also referred to as <u>community participation</u>--emerge as potentially the most effective strategy for health education programs in water and sanitation projects. A community-oriented strategy for health education works to secure health benefits from water and sanitation projects two ways:

• it reinforces the adoption of individual behavior relative to water and sanitation; and

• it enables communities to establish "ownership" of the new technologies such that they perceive it to be in their self-interest to use, maintain, and repair them appropriately.

The application of organizational methods of health education to domestic water supply and sanitation projects usually takes many different forms, depending on the existing organizational dynamics within a community and the desired behavioral changes. The feasibility and desirability of these methods in a large urban setting, for example, vary considerably.

A community organization approach to health education may involve efforts to assemble a group of people to discuss ways to eliminate their annual shortage of water during the dry season and how they might pursue them. It can also mean working with a locally elected water authority responsible for the physical and financial maintenance of a newly installed standpipe system. It includes efforts to coordinate water and sanitation activities with all relevant government and private agencies. Small group discussions on latrine maintenance involving neighborhood mothers; installation of a well at a local school, getting the village elders to encourage penning of animals; and organization of community clean-up campaigns are all activities of a community organization approach.

Although the results of a community organization approach might vary from community to community in terms of decisions made, reality dictates that choices regarding all aspects of water supply and sanitation systems be made within certain parameters of standardization.

The application of training methods as a health education strategy is also critically important to water and sanitation projects. The audience for training can be either the persons at risk of health problems (e.g., selected community residents learn simple pump maintenance, school children learn the proper use of a latrine) or the persons whose control ever resources affects those at risk (e.g., health personnel learn to plan and implement community health education; local development committee learns to manage funds collected from water users). Training of trainers (TOT) is also included in the latter category. Training is a strategy of health education in that it enables individuals and groups to acquire new knowledge, attitudes, values, beliefs and skills which in turn facilitate behavior change. Training in group settings promotes and reinforces behavior change of individuals within the group.

<u>Communications</u>, or the dissemination of information, is an important, legitimate activity of water and sanitation education programs. Information enables people to make informed choices related to water and sanitation practices, but it does not necessarily motivate them to act.

Examples of the application of this health education method would include the following:

• poster campaigns to encourage the construction of latrines;

• presentation by the district administrator to a community group on the capital costs of alternative water supply technologies;

• radio talks on the etiology and transmission of water and sanitation-related diseases;

• demonstration of the operation of a hand-pump;

• booklets describing the various types of excrete disposal systems and the criteria for choosing ones and

• popular theater and puppet shows to dramatize the relationships of water supply and sanitation to health status.

Two of the three criteria for investment outlined in the draft, "Domestic Water Supply and Sanitation Policy Paper. of March 1982 which will guide AID's investment in water supply and sanitation have important implications for health education. The first criterion calls for not only evidence of need in terms of high prevalence of water and sanitation-related disease, but also evidence of <u>demand</u> for water and sanitation facilities as demonstrated by the willingness of consumers to support recurrent costs of projects as well as to cover at least portions of investment costs. If consumers are unable to make such commitments but "the absence of basic water and sanitation systems poses a public health hazard for the community at large, the government must demonstrate a commitment to shoulder a substantial portion of the investment costs, as well as those recurrent costs which the community cannot cover in the short run". Working with consumers and government officials to develop that "willingness" and "commitment", becomes a task of health education. The objective is to develop behavior conducive to realizing health benefits--that is, behavior in support of functioning water supply and sanitation facilities.

The second criterion states that the "local and national institutions responsible for national domestic water supply and sanitation policy must have the responsibility, personnel and budgetary resources to ensure the construction, expansion and continued operations and maintenance of the improved water and sanitation systems.. The ability of institutions to carry out these tasks naturally has a direct impact on the realization of the potential health benefits of water supply and sanitation projects. If systems deteriorate, break down and become nonfunctional, then health benefits will likely not accrue to the population served. Thus, system maintenance, too, is an area of concern to health education in that appropriate training and institutional development will help create "an environment supportive of change". If people are to properly use facilities, the facilities must function properly.

In addition to the investment criteria, the policy paper also outlines the factors that will guide the design of AID-supported domestic water and sanitation projects. Many of these factors have education dimensions and thus would be in the preview of health education. For example, instruction of "users in proper water use and hygiene" must be provided for in project design.

The relevant behavioral objectives of this "user instruction or education" as defined in the paper may be summarized as follows:

• People will use the water and sanitation facilities

• People will use them properly

• People will transport water in clean containers

• People will store household water so as to avoid microbial contamination and mosquito larval breeding

• People will wash their hands after defecating, before eating or before preparing food

• People will bathe properly

• People will clean utensils with safe water

• Women will breastfeed their children during the first six months of life

• People will be able to prepare oral rehydration solutions, infant formula and weaning foods in a hygienic manner

The role of the health education program components of water and sanitation projects is to diagnose the factors which influence these types of behaviors, determine which factors are amenable to educational interventions and then plan and implement an appropriate intervention program.

(Adapted From: WASH Technical Report No. 15. The Application of Health Education to Water Supply and Sanitation projects in Africa.)

Handout 19C: Suggestions for selecting health education strategies

Selecting the appropriate strategy for a health education program will depend on a situational diagnosis and a subsequent determination of methods which are most likely to directly or indirectly influence behavioral change. Green (1978) suggests that four basic principles should guide the selection and coordination of the educational component of any program:

1. Health education seldom has an immediate, direct impact on behavior. It influences behavior primarily through changes in knowledge, attitudes, beliefs, values, perceptions, and social supports (relatives and significant others) and through changes in professional behavior towards participants, including referrals, communication and reinforcement. These are the intervening variables through which health education should be expected to influence health behavior, and which therefore should be considered in selecting and coordinating educational experiences.

2. No single educational input by itself should be expected to have significant lasting impact on health behavior unless it is supported by other educational inputs. Health

education strategies must be <u>cumulative and mutually supportive of the several factors facilitating a given behavior</u>.

3. The best combination of educational methods, media and messages for some people, is not necessarily the best combination for others, or for the same people in other situations. Therefore, <u>educational methods within a given program should vary according to audience characteristics and circumstances</u>.

4. Health education cannot claim and should not be expected to accomplish more than behavior change, unless the medical or epidemiological evidence linking health or disease outcomes directly to the behavior is conclusive. The <u>effectiveness of health education methods should be judged on the basis of behavior</u>.

(Adapted From: <u>International Journal of health Education</u>, "Supplement Guidelines for health Education".)

Session 20: Developing a health education project plan

Handout 20A: Planning a community health project
Handout 20B: Health education project planning worksheet

Trainer Attachment 20A: The bamboo bridge activity
Trainer Attachment 20B: Instruction for conducting hollow squares activity

TOTAL TIME: 3 hours

OVERVIEW

In the previous four sessions participants have reviewed the health education process, practiced identifying problems and writing objectives, and selected health education strategies to meet their objectives. In this session they will integrate what they've learned from conducting the first four steps in the health education process. Working in pairs, the participants will develop a health education project plan, which includes objectives, strategies, activities, time frame, resources, evaluation criteria and other vital information. Later in Session 27 participants will design and carry out one specific activity from their plan.

OBJECTIVES

• To assess the resources and the constraints related to a health education project. (Steps 1, 2)
• To plan the implementation of a health education project, using a planning worksheet. (Steps 3-5)

RESOURCES

<u>Bridging the Gap</u> Part IV
<u>On Being In Charge</u> (WHO)

Handouts:

- 20A Planning a Community Health Project
- 20B Health Education Project Planning Worksheet

Trainer Attachments:

- 20A The Bamboo Bridge Activity
- 20B Instructions for Conducting Hollow Squares Activity

MATERIALS

Two blank posters, long strips of paper, string, flannel board or chalkboard, colored paper, glue, newsprint and markers (for Bamboo Bridge Activity); materials for Hollow Squares Activity, if used (see Trainer Attachment 20B).

PROCEDURE

Trainer Note

Prior to the session, distribute Handout 20A (Planning E Community Health Project) and ask participants to read it.

Assign several participants the task of facilitating the Bamboo Bridge Activity in Step 1. Give them Trainer Attachment 20A as a guide for their preparation.

Prepare a large version of the Health Education Planning Worksheet (Handout 20B page 1) to use during discussion in Step 3.

Step 1 (20 min)
Bamboo Bridge Activity

Introduce the session objectives and emphasize the importance of planning with the community in an organized way to improve health. Explain that the activity they are about to do is one way of accomplishing this. Ask the pre-assigned participants to facilitate the Bamboo Bridge Activity, using the problems and objectives developed in Sessions 17 and 18. Tell the group to focus their attention during the activity on identifying resources and obstacles and making a plan of action.

Trainer Note

An alternative to this step is to do the Hollow Squares game (see Trainer Attachment 20B) as a means of demonstrating the importance of involving project planners, implementers, and the community at large in the planning process. Please note that if you do the game, you will need to lengthen this session by at least an hour.

Step 2 (15 min)
Processing the Activity

Based on their reading of Handout 20A and the Bamboo Bridge activity ask participants:

- What did you learn about project planning from this activity? (i.e., the items you must consider when developing a project plan)

- Were the objectives you set for the problems achievable? (i.e., given the resources and barriers identified for each of the problems, could the community really accomplish the objective/solution?) If, during planning, you find that one or more of your objectives seem unrealistic, what should you do?

- How could you use the Bamboo Bridge Activity in your community?

Step 3 (25 min)
Reviewing the Planning Worksheet

Tell the participants that prior to developing the project plan the following questions (which have been discussed in Sessions 17 and 18) need to be addressed:

- What is the problem? (what aspect of the current situation is harmful?)

- Who are the learners (or target audience)? (For whom is the health education project intended? What does this target group know, feel and do about the problem?)

- How will individuals, groups and communities be involved in planning and implementing the project?

Distribute Handout 20B (Health Education Project Planning Worksheet). Explain to the participants that they will adapt and use this worksheet for developing their project plans. Explain that the categories listed an the worksheet address the following basic planning questions:

- What are the health education project OBJECTIVES? (what results do you the community, and the health ministry expect?)

- What HEALTH STRATEGIES will you follow or use? (what combinations of training, organization, communication strategies will you use?)

- What ACTIVITIES will you use for applying these strategies?

- What RESOURCES are available to carry out the project? (what supplies, equipment technically skilled personnel are needed?)

- WHEN will you begin and for HOW LONG will you conduct this project?

- How and when do you plan to MONITOR the project? (what items will tell you how things are going?)

- How will you EVALUATE the project (WHEN will you evaluate, what criteria will you use to base your evaluation en?)

Ask the participants to critique and/or adapt the worksheet.

Step 4 (60 min)
Planning Practice

Have the group divide into their same pairs that worked together in the previous health education sessions, and explain that they will be working together for rest of this session to plan a health education project.

Have the pairs begin using the worksheet by writing in their selected objectives and strategies. Then have them proceed in planning activities, identifying resources, and so forth as indicated an the worksheet. Encourage them to develop a project that would be viable in their host community. Explain that this is just the first draft; they will be giving each other suggestions and revising the plan during this session and throughout the remainder of the health education sessions.

Step 5 (45 min)
Reports and Group Critique of Plans

Reconvene the large group and ask each pair to briefly describe their health education project plan. After each presentation ask the rest of the group to consider how well the work pair has answered the planning questions discussed earlier in Step 3. Ask them to offer suggestions of ways to improve the plan. At the end of the reports, summarize for the group the points on planning listed below in the Trainer Note. Encourage them to point out what is good about the plan.

Close the session by telling participants that the next session focuses on the final two steps in the health education process - monitoring and evaluation.

Trainer Note

If the group is large either break it into two sub-groups and have them report simultaneously or extend the overall time of the session.

Before the end of the session, mention the following important points on planning:

1. Planning is a <u>human process</u> for defining problems, choosing goals, thinking of ways to accomplish goals and measuring accomplishment of goals by exchanging ideas.

2. <u>Involving members of the community</u> in planning is a way to increase their interest and willingness to carry out a plan.

3. A plan is a <u>communication tool</u> for sharing strategies for accomplishing goals in a concise way (what to do and how to do it)

4. Plans should be <u>flexible</u>. Plans should be continually evaluated and revised. Situations and policies change and we find better ways to accomplish goals. Goals and objectives should be revised throughout the planning process.

Handout 20A: Planning a community health project

Among the most important ideas for anyone involved in community work in health education is to be acquainted with as many aspects of community life and its people as possible. The purpose of gathering this information is to help the health or other community worker have a fuller understanding of some of the problems of the community and some limitations on the solutions to these problems.

Once the community members and the community worker come to a joint understanding and desire to work on a project, a sequence of steps should be followed in planning the project. Each step will be discussed separately in this chapter. The four steps are:

Step 1: *Define the problem*: it is important to involve the community and focus on their needs.

Step 2: *Choose a goal and objectives*: These should be measurable so that evaluation is made possible; they should relate to the problem; and they should be possible to achieve.

Step 3: *Assess the resources and barriers to the project*: This will involve finding the necessary materials; shills, people and funds; and investigating possible obstacles to the success of the project. The importance of doing this before carrying out the project is to make the plan for action realistic.

Step 4: *Carry out and evaluate the project*: An outline should be made of the specific activities aimed at reaching the goal. Because evaluation is an on-going process and takes place throughout the life of the project, both topics are covered together.

Step 3(a): Assessing Barriers to Changes in Health Behavior

This will involve investigating possible obstacles to the success of the project. The importance of doing this before carrying out the project is to make the plan for action more realistic.

As you have been getting acquainted in your community, you may have seen some evidence of poor health. You have observed that:

• many children are thin and small and have big bellies;
• the people live mostly on rice;
• few families have chickens, pigs, rabbits or goats for food;
• there is a year-round growing season, but few families grow vegetables;
• the only available milk is purchased;
• there is some fruit in the market, but it is expensive.

You have talked with the leaders and the people in the village about the problems of illness, fatigue, and deaths of young children. They show interest in doing something about it. You ask a group of leaders and a few parents to meet to discuss the problem and ways to solve it. In your meetings, you lead the people to discuss why the problems exist.

You and the group decide that there are not enough of the foods needed for good health and the villagers do not know about these foods What are the obstacles, habits and attitudes that now keep people from growing green and yellow vegetables? Possibly the following items are found:

• lack of knowledge, information or experience
• no suitable seed
• seeds not easily available
• trouble with insects
• not enough water
• no real interest
• traditions and beliefs which hinder the acceptance of these food items
• lack of shared community resources such as irrigation pump
• no banking resources
• high debts

Obstacles or barriers to health education exist in all communities and relate to many things. There may be interest in things other than health (for example, roads, schools, agriculture). Usually, a community has seen little change as to its health status - that is, whether the general health level is high or is low. They have nothing to compare their predicament with, and hence do not see it as a predicament at all. Therefore, when health competes with such paramount demands as: earning a living; providing shelter, food and clothing; bringing up a family; it may be far down on the community's list of priorities. If the community is satisfied, on the whole, with its state of health, changes in behavior will be resisted mainly because to make these changes, the people will be inconvenienced. Long distances, to travel for medical care, long waiting periods, even painful experiences such as an injection, could also be barriers to change in the community. They may want other help, though, such as freedom from bedbugs or opportunity to space children. Such needs create opportunities.

Many cultural traditions, practices and beliefs in every society are related to health and may also be barriers to change methods of child feeding. The following are examples: the usual length of breastfeeding; when the first foods are introduced and their nature; whether milk or its products are customarily employed; the traditional use of other protein sources, especially legumes, eggs, fish; the commonness of such "prestige" practices as: bottle feeding, the use of carbonated beverages and over-milled flour; and the dietary practices of women during pregnancy, lactation and after giving birth.

These practices may be passed on from one generation to the next. Until acceptance of a change is complete, the return to traditional or popular practices will occur due to the strong need of the individual to be accepted by his/her social group.

Other barriers to health education could result from differences in languages. Perhaps there is an indigenous dialect in the area that you don't know. Find an interpreter and, if possible, train him or her so that he or she can work directly with the people. Remember, the translator is an "insider" and therefore more readily trusted and accepted by the community.

Closely related to the language barrier is the communication problem caused by illiteracy or low educational levels. The concepts of modern hygiene, for example, may have no meaning to a people who have never been exposed to facts related to the cell, microbes and the use of the microscope. In this case, the importance of knowing what the community knows becomes evident.

Other things to keep in mind when considering problems and setting goals are: the economic ability of the people (do they have the money, time resources, with which to take action?) and the community attitudes towards solving the problems. If their attitudes are negative, a definite barrier to change exists. How does the community feel about other government programs and workers?

Step 3(b): Assessing Apparent and Potential Resources

What are some of the resources you can use in your work with the community? Each situation offers different possibilities, but do not forget that you are a very important resource person in the area where you work. To function efficiently then, it is important

that you know as much about your community as possible. What has been the history of its involvement in health issues in the past? You may have to dig deep to find a cohesive force, but all communities work together in some form.

The term "community" implies a sense of togetherness and, if you try, you will probably find that neighbors have helped each other in the past, even though it may not have been on a large scale. Perhaps one family helped another to build a house, or to take a sick child to the hospital. Perhaps the local church has a youth group which convenes and raises funds for various projects. Look; you will find potential resources.

What organizations or agencies exist? What are their activities and interests? Many communities have official (governmental), voluntary (private), professional, religious and civic groups. What are they doing? Are they interested in health? What approach do they use? Can you work together, one complementing the other?

Are there any extension workers other than yourself in the community? Find out and introduce yourself and what you are doing. Perhaps you. can work together toward a common goal rather than fragment efforts and duplicate work.

Get to know the background, skills and strengths of those in communication with the community. These could be the teachers, the traditional healer, the merchants, the religious leaders, the heads of community organizations and clubs. Also available are the people involved with your specific project - your staff. There are those people working in various government and private agencies at local, national and sometimes international levels. Get to know what goes on in the local government and national ministries, who is available for contact, and what other agencies they can suggest as sources of further information and support. Acquaint yourself with the existences and services of the agencies and organizations in the country where you work. If possible, visit these agencies and take with you a leader from the community.

What kinds of supplies, materials and equipment will be necessary for the health plan? A vaccination campaign will need vaccine, possibly some means to keep it cold, needles and syringes, a place to sterilize equipment, paper on which to keep records, a means to publicize the campaign, a place to work, etc. To build latrines, you will need to know the geography of the area, where wood, sand, gravel and cement are available, etc. How can your project adapt to the available materials?

What will you need for educational supplies? Does a mass-information system exist? (radio, TV, newspapers) Where will you get paper, crayons, tape, tacks, projector, film? Can you make a bulletin board, blackboard, flip chart? Decide what you need and investigate your resource agencies, the schools and people. Who can be responsible other than yourself? Look for talent within the community. Utilize relevant materials already in use. Make your own only when necessary so that time and efforts are not wasted.

How will you maintain your supplies? Will you need a place to work? In almost every project, some monetary source must be available. Where can you get money? Can funds be raised? How? Who will organize a fund raising project? Who will handle the money? These are all very important questions because trust can be lost if funds are mismanaged.

In Nicaragua, funds to build a community clinic were raised by the local Health Committee. The officers volunteered their time and visited the various merchants in the surrounding communities, asking for donated items Such things as pots and pans, soap, fabrics, paint, food and toys were obtained and made as prizes to the winner of various community contests and games set up by the Committee. The contestants purchased a ticket for the contest at minimal fee and nearly everyone participated. A local leader who manufactured beds donated a bed for a raffle. The provisional clinic collected a voluntary fee for injections. All of these are possibilities for fund-raising projects, but remember to plan who will be responsible for safe-guarding the funds and who will make the decisions about their use raising them.

You are not working alone in this investigation of resources. Talk with the leaders, your supervisor, heads of community organizations. Get suggestions. Experiment. Publicize. But, most important, work together.

Step 4(a): Developing and Implementing a Project Plan

You have learned to know the people of the village and how they live. You have probably already helped them with some of their simple problems. You may have given some demonstrations and talked over village problems with the people. The Health Committee has identified a problem, defined a goal, and written objectives; barriers and resources have been assessed. Planning ahead to know what to do, when to do it, and how it should be done is essential in any kind of work.

"But why is a planned program needed?" A plan of work is a picture or "map" of what to do. If you and a friend started walking down a road, you would need to know which way to go in order to get to your destination. There could be several different roads leading to the same place, but perhaps one has advantages over the others. You need to decide between you which one to follow. A planned program is a guide to help the community get where it wants to go.

The importance of planning cannot be stressed too strongly. There must be joint planning on common problems by all of the interested groups. Attempts at cooperation too often fail because one person or one organization decides on a plan to be followed and then tries to get the others to follow a plan they did not help design.

If there is joint planning on a common problem, all are working toward the same goal. Independent action causes competition of the sort that is fatal to the success of a health plan because it can lead to competition for the attention and actions of the people, and create wasteful demands on limited resources.

The people must participate in each step. They need to decide just what to accomplish and what their targets are. When the people have agreed on their goals, they must decide how they are going to reach them. Sometimes it is harder for people to agree on how to do something than to decide to do it. Sometimes, each person thinks his or her own way is better.

The leaders may need help in deciding what will happen if they do it one way and what will happen if they do it another. Which will be better for the people? Does one cost more than the other? They must set priorities and decide on which is the better way for their

community at this time. Deliberate involvement of as large a number of people as possible is good because it means that many more people know and understand the problem. All those who participate learn something. Men, women, children, young people, old people, merchants, housewives, speakers, farmers; all have some skill which can be utilized in carrying out a community health program.

The community leaders or the Health Committee must make the plan. This plan may have many parts. It will need a time schedule. What should be done first, and what comes next? How much time is needed for each job so that each will be done at the right time?

The planners must find out what is needed to do the job, who can do it, how much it will cost, and many other things. They must find the time, the people, the money, the equipment and anything else that is needed. Educational methods for each stage of the plan should be selected as part of the plan. See Chapters V and VI.

Once the steps to be taken have been defined, the Health Committee or planning group must decide who will be responsible for each step. For some jobs, workers will need special skills and equipment. Other jobs can be done by village people with no prior training. There will be many things to do: planning for equipment, arranging meetings, explaining procedures.

Everyone must feel that he/she has a chance to help. Doing the job is the actual step for which you have been planning, be it building a road, planting vegetable gardens, or vaccinating against measles. This step will give the community members a great measure of satisfaction and will draw the group more closely together.

To summarize, when planning a project with the community, the Health Committee or other community planning group will need to write down a Plan of Action. This is the "map." it will serve as a guide and will help in implementing and evaluating the project and planning another one.

Step 4(b): Evaluating the Project

Don't stop yet - evaluate! Planning never ends, so, each time a project or step of the program is completed, the Committee should look back over what has been done to be sure that things are going as they should. This is called evaluation and is an on-going, continuous process just like planning. You must evaluate past efforts to plan for changes.

Develop a means for evaluation when defining the goal and writing up a Plan for Action. Keep in mind your community survey and any responses from questionnaires and statistics you might have collected as possible sources of information for evaluation.

Following each step or activity, ask questions such as:

• How well did we do?
• Did the plans work?
• Why did we succeed? or
• Why did we fail?
• What should we be doing now?

• What do we do next?
• If we made mistakes, can we keep from making them again?

Encourage the community members to begin to evaluate the project shortly after its initiation. Are people using the latrines that have been installed? Are they keeping up their vegetable gardens and eating the harvest? Are the children really going to school? Did the group for whom you intended your activities come?

After each phase of the project is over, you must follow-up to determine how successful it has been. At the end, ask yourself all of these questions again. Did you get the job done? What can be done to make your efforts more successful?

Possible kinds of measurements you might use to evaluate your project, if planned from the beginning, are:

1. *Quantity or amount*

a) How many persons were reached?
b) How many posters, pamphlets, home visits were made?

2. *Quality* - What do the people think?

a) the leaders?
b) the participants, villagers?
c) other health workers?
d) the pupils?

3. *Changes in knowledge* shown by:

a) questioning
b) requests for opinions

4. *Changes in attitude*

a) Community support for the program.
b) Requests for further cooperation by the Health Department.
c) Less opposition by groups in the village who had previously been against the project.
d) Public opinion poll

5. *Changes in behavior*, such as:

a) Increase in visits to the clinic or health worker
b) Improved habits and conditions noted at the school
c) Increase in the number of children immunized
d) Increase in the sale of milk, meat, vegetables or other good foods
e) Increase in the number of pregnant women seeking early prenatal care
f) Increase in the number of births that occur in the hospital or with the trained midwife
g) Increase in the number of infants under medical supervision
h) increase in the number of women who breast teed their babies
i) installation of sanitary facilities (latrines, garbage pits)

6. *Changes in health status* as shown in:

a) Child growth
b) Numbers of sick people (as shown in a survey)
c) Number of deaths as reported in public health statistics
d) Improvement in health as shown in individual cases
e) Reduced accident rate
f) Reduced exclusion from school due to illness, lack of clothing or poor hygiene [1]

[[1] Turner, Claire E. *Community Health Educator's Compendium of Knowledge*. International Journal of Health Education, Switzerland, 1964. pages 105-108.]

In the case of evaluating an educational approach, you will find it difficult to measure the results. The mere giving of lessons or demonstrations and the ability of the people to repeat them are surely not the only measure. Behavior change is the goal, yet these changes are not easily evaluated immediately since they may occur slowly over a long period of time.

As always, throughout your work with the community, it will be necessary to record your observations. This is a form of written record which you've already done during your community investigation. You should discuss the importance of record keeping with the Health Committee.

Evaluating the progress of complex activities such as public health is never simple, but it can be made easier by clearly defining the project's objectives early and relating your evaluation plan directly to those objectives. With careful planning, evaluative data will help to assure that the project is better managed, and that those who support the work, and particularly members of the community, will feel confident in the progress being made.

(From World Education Reports, "Evaluation". pp. 5-10.)

Handout 20B: Health education project planning worksheet

OBJECTIVE	STRATEGY	ACTIVITIES	TIME FRAME	RESOURCES	ITEMS TO MONITOR	EVALUATION CRITERIA
		- With community leaders and health staff				*Process Criteria:*
By the end of 4 months 10% of	CO	1) Discuss methods to use to	week 1		# of posters and	Appropriateness of having leaders

community members will be able administer ORS and SSS as prescribed by MOH and WHO		inform community about the need for ORT			pamphlets observed around community	involved in location/selecting media materials for use in the community
		2) Locate, obtain &/or develop posters, pamphlets and radio messages to inform community about importance of ORT. Announce the place, date and time of ORT demonstrations sessions. Form committee for arranging and coordinating radio spots.	week 3	printed posters, pamphlets & other materials from MOH, poster board, markers for making posters & flyers.	# of people who have heard about ORT & demo session from radio spots	Effectiveness of using school children to distribute posters & pamphlets
		- With CHWs, school teachers and older children, organize system for distributing pamphlets and posters	week 5			

	TR	- Conduct TOT workshop to train CHWs in preparation and administration of ORS and SSS to demonstrate techniques for teaching parents who attend ORT sessions	week 7	for TOT & demos large room act clinic with flipchart, board chairs, tables. ORT materials for both TOT & demos: ORS packets, sugar & salt for SSS, locally used container, utensils & water source	# of CHWs who complete TOT & are prepared to facilitate demo sessions with parents # of people who attend & complete demo sessions # of people who can correctly prepare ORS & SSS	Adequacy of #'s of CHWs trained to facilitate demo session. Effectiveness of TOT. Effectiveness of sessions in teaching people to mix ORS & SSS. Appropriateness of using demos & skills practice
		- CHWs conduct 2 hr. ORT sessions with parents teaching, through demonstration and skills practice, how to prepare and administer ORS, SSS	weeks 9-16 twice weekly			
	COM	- CHWs and school children distribute	Weeks 7,10,13	transport for children posters & pamphlets in		Effectiveness efficiency & appropriateness of using

		pamphlets and posters to inform community about need for ORT and upcoming ORT demonstration sessions.		bundles, tacks & nails. radio station equipment for taping spots. transport for CHWs extra pamphlets & ORS packets		posters, pamphlets & radio to inform about ORT
		- Radio committee carries out radio spots	weeks 7-16			Appropriateness of home visits as a follow-up to training.
		- CHWs do home visits to parents who attended ORT demonstration session to observe them preparing ORS & SSS in their homes and provide additional information	weeks 10 -17		# of home visits conducted #of people who can demonstrate ability to mix solution at home	*Outcome Criteria:* 10% of community members can correctly prepare and administer ORS & SSS

(Developed by: CHP international, Under Peace Corps Contract number PC 284-1011).

Trainer Attachment 20A: The bamboo bridge activity

<u>Materials to Prepare</u>:

- a large flannel board or chalkboard

- two large blank posters

- 60 cm. of yarn or string

- several long strips of colored paper (60 cm. by 2 cm.)

- four long strips of paper (24 cm. by 8 cm.), one labeled "Steps", one labeled "Barriers" and one labeled "Community Effort," and the other labeled "Resources"

- 12-15 paper labels (24 cm. by 8 cm.)

- several numbered paper cutouts to represent bare feet.

- glue cotton or sandpaper on the back of the labels so they will stick to the flannel board. Use tape to hold labels on a chalkboard.

1. Before the session prepare a poster illustrating the problem that your group identified during Session 19 (Identifying and Analyzing Priority Health Problems) and another picture Illustrating your the objective that you developed in Session 20 (Writing Health Education Objectives). Label the pictures as shown below.

2. Invite the community members who attended Session 19 to visit this session if possible . Arrange a translator if necessary.

3. Put up the posters and hang the string between the two posters. Attach the "Community Effort" label in the middle of the string.

Community Effort
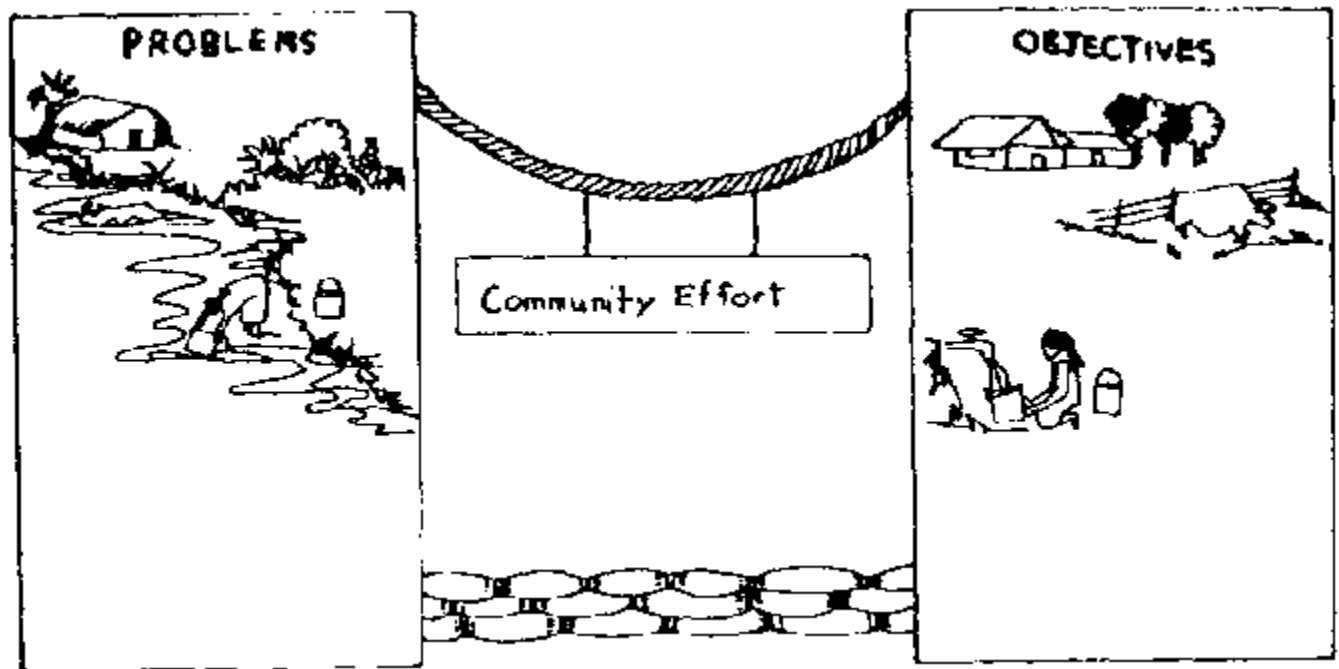
4. Greet the group and explain that they will be participating in a simulation of a community gathering to review problems, goals, resources and develop a plan of action for attaining the objectives. Briefly review how your group came up with the problems and the objectives. Ask the other participants to imagine that they are members of the community participating in a real town meeting.

5. Discuss potential barriers. Write the name of each barrier on a label and place it under the "Barriers" label, under the problem poster, as shown below.

6. Discuss available resources. Write the name of each resource, such as "village leadership," on a label and place it under the "Resources" label between the problems and objectives posters as shown below.

7. Ask the group, "what is the first small step using these resources, that you can take toward solving your problem and accomplishing your objectives?" Write their answer on a label and put it under "steps."

8. Place paper foot number one at the left side of the bridge, pointed toward the objective. Continue to discuss a step-by-step plan of action. Add each step to the "step" list and put another foot on the bridge.

Bamboo Bridge
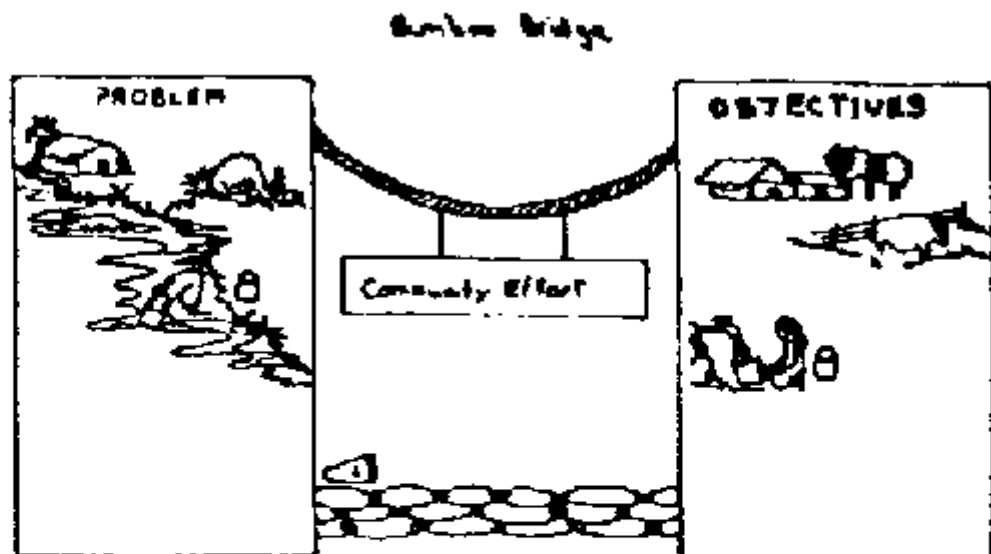
9. Ask members of the group to summarize what they accomplished in the meeting and set a time to meet again to continue discussing the project.

(Adapted from: Bridging the Gap. pp. 93-94.)

Trainer Attachment 20B: Instruction for conducting hollow squares activity

The purpose of this activity is to demonstrate the need for interaction between planners, implementors and evaluators when planning and implementing a project. Approximately one hour will be needed to conduct this activity. You may either use the format for creating the hollow squares or develop a plan for having the participants design and make something else, such as a stage for a puppet show, a clay stove, a church or mosque. Whatever it is you select for them to do make sure you have assembled all the parts and equipment needed.

Adapt the directions on the following pages accordingly.

At the end of this step process the experience by asking the following questions:

- How well was the project implemented?
- What was the impact of not having everyone involved in the process from the beginning to the end?
- How did the design differ from the plan and why?

33. HOLLOW SQUARE: A COMMUNICATIONS EXPERIMENT

Goals

I. To study dynamics involved in planning a task to be carried out by others.
II. To study dynamics involved in accomplishing a task planned by others.
III. To explore both helpful and hindering communication behaviors in assigning and carrying out a task.

Group size

A minimum of twelve participants (four on the planning team, another four on the operating team, and at least four to be observers). The experience can be directed with multiple groups of at least twelve participants each.

Time Required

Approximately one hour.

Materials

I. For the four members of the planning team:
1. A Hollow-Square Planning-Team Briefing Sheet for each member.

2. Four envelopes (one for each member), each containing puzzle pieces. (Instructions on how to prepare the puzzle follow.)

3. A Hollow-Square Pattern Sheet for each member.

4. A Hollow-Square Key Sheet for each member.

II. Copies of the Hollow-Square Operating-Team Briefing Sheet for the four members of the operating team.

III. Copies of the Hollow-Square Observer Briefing Sheet for all process observers (the rest of the group).

IV. Pencils for all participants.

Physical Setting

A room large enough to accommodate the experimental groups comfortably. Two other rooms where the planning and operating teams can be isolated. A table around which participants can move freely.

Process

I. The facilitator selects four people to be the planning team and sends them to an isolation room.

II. The facilitator selects four people to be the operating team, gives them copies of the Operating-Team Briefing Sheet, and sends them to another room. This should be comfortable, because this team will have a waiting period.

III. The facilitator designates the rest of the members as the observing team. He gives each individual a copy of the Observer Beefing Sheet and allows time to read it. Each observer chooses one member from each of two teams he will observe. The facilitator explains to the observers that they will gather around the table where the planning and operating teams will be working. Their job will be to observe, take notes, and be ready to discuss the results of the experiment.

IV. The facilitator then brings in the members of the planning team and has them gather around the table. He distributes a Planning-Team Briefing Sheet and an envelope to each individual on the team.

V. The facilitator explains to the planning team that all the necessary instructions are on the Briefing Sheet. If questions are raised, the facilitator answers, "All you need to know is on the Briefing Sheet."

VI. The facilitator then cautions the observing team to remain silent and not to offer clues.

VII. The experiment begins without further instructions from the facilitator.

VIII. After the planning and operating teams have performed the task as directed on their instruction sheets, observers meet with the two persons whom they observed to give feedback.

IX. The facilitator organizes a discussion around the points illustrated by the experiment. He calls on the observers for comments, raises questions himself, and gradually includes the planning and operating teams.

An evaluation of the Planning-Team Beefing Sheet may be one topic for discussion. Any action not forbidden to the planning team by the rules is acceptable, such as drawing a detailed design on the Pattern Sheet or drawing a template on the table or on another sheet of paper. Did the planning team restrict its efficiency by setting up artificial constraints not prescribed by the formal rules? Did it call in the operating team early in the planning phase, an option it was free to choose?

Variations

I. While the operating-team members are waiting to be called, they can be involved in a team-building activity such as "Twenty-Five Questions" (Vol. IV: Structured Experience 118).

II. An intergroup competition can be set up if there are enough participants to form two sets of teams. The winner is the team that achieves the correct solution in the least amount of time.

III. With smaller groups the number of envelopes can be reduced. (It would be possible to have individuals work alone.)

IV. The members of the operating team can be instructed to carry out their task nonverbally.

Preparing the Puzzle

Prepare the hollow-square puzzle from cardboard with dimensions and shapes as in the following drawing. Lightly pencil the appropriate letter on each piece. Put all letter-A pieces in one envelope, all letter B's in another envelope, and so on. Then erase the penciled letters.

Puzzle
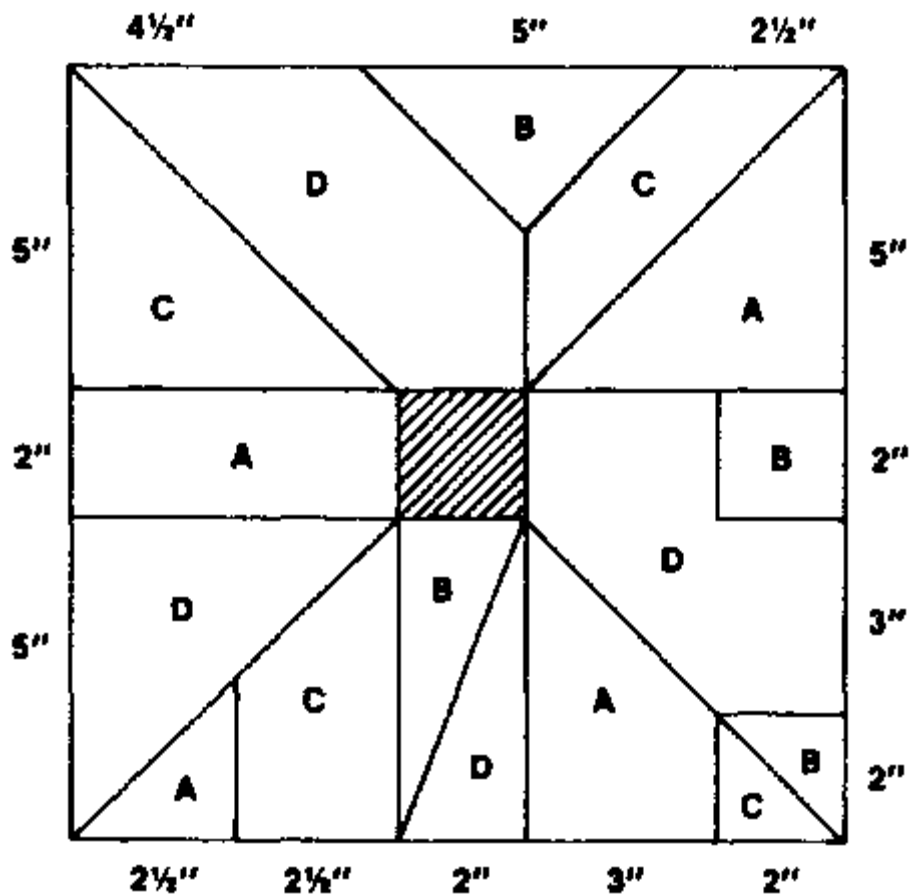
HOLLOW-SQUARE PLANNING-TEAM BRIEFING SHEET

Each of you has an envelope containing four cardboard pieces which, when properly assembled with the other twelve pieces held by members of your team, will make a "hollow-square" design. You also have a sheet showing the design pattern and a Key Sheet showing how the puzzle pieces fit to form the hollow.

Your Task

During a period of twenty-five minutes you are to do the following:

1. Plan to tell the operating team how the sixteen pieces distributed among you can be assembled to make the design.

2. Instruct the operating team how to implement your plan.

(The operating team will begin actual assembly after the twenty-five minutes is up.)

Ground Rules for Planning and Instructing

1. You must keep all your puzzle pieces in front of you at all times (while you both plan and instruct), until the operating team is ready to assemble the hollow square.

2. You may not touch other member's pieces or trade pieces during the planning or instructing phases.

3. You may not show the Key Sheet to the operating team at any time.

4. You may not assemble the entire square at any time. (This is to be done only by the operating team.)

5. You may not mark on any of the pieces.

6. When it is time for your operating team to begin assembling the pieces, you may give no further instructions; however, you are to observe the team's behavior.

Hollow-square pattern sheet
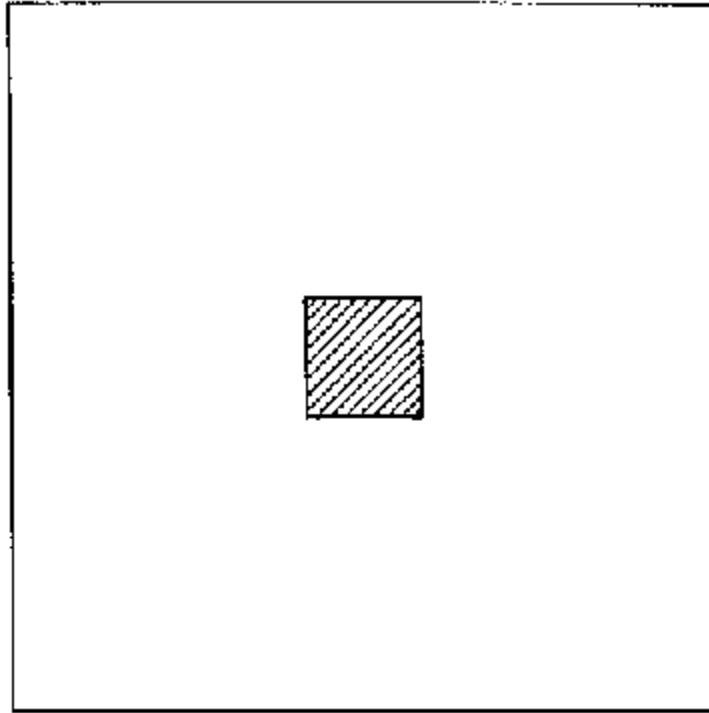
Hollow-square key sheet
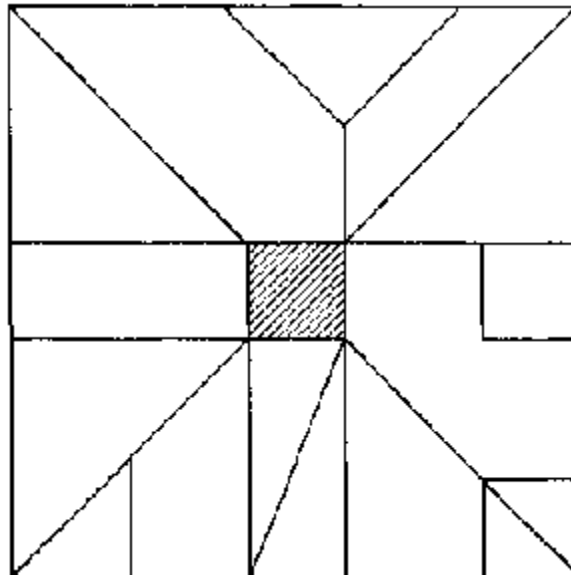
HOLLOW-SQUARE OPERATING-TEAM BRIEFING SHEET

1. You have the responsibility of carrying out a task according to instructions given by your planning team. Your task is scheduled to begin no later than twenty-five minutes from now. The planning team may call you ID for instructions at any time. If you are not summoned, you are to report anyway at the end of this period. No further instructions will be permitted after the twenty-five minutes has elapsed.

2. You are to finish the assigned task as rapidly as possible.

3. While you are waiting for a call from your planning team, it is suggested that you discuss and make notes on the following questions.

a. What feelings and concerns are you experiencing while waiting for instructions for the unknown task?

b. How can the four of you organize as a team?

4. Your notes recorded on the above questions will be helpful during the discussion following the completion of the task.

HOLLOW-SQUARE OBSERVER BRIEFING SHEET

You will be observing a situation in which a planning team decides how to solve a problem and gives instructions on how to implement its solution to an operating team. The problem is to assemble sixteen pieces of cardboard into the form of a hollow square. The planning team is supplied with the key to the solution. This team will not assemble the parts itself but will instruct the operating team how to do so as quickly as possible. You will be siren' throughout the process.

1. You should watch the general pattern of communication, but you are to give special attention to one member of the planning team (during the planning phase) and one member of the operating team (during the assembling period).

2. During the planning period, watch for the following behaviors:

a Is there balanced participation among planning-team members?

b. What kinds of behavior impede or facilitate the process?

c. How does the planning team divide its time between planning and instructing? (How soon does it invite the operating team to come in?)

d. What additional rules does the planning team impose upon itself?

3. During the instructing period, watch for the following behaviors:

a. Which member of the planning team gives the instructions? How was this decided?
b. What strategy is used to instruct the operating team about the task?
c. What assumptions made by the planning team are not communicated to the operating team?
d. How effective are the instructions?

4. During the assembly period, watch for the following behaviors:

a. What evidence is there that the operating-team members understand or misunderstand the instructions?

b. What nonverbal reactions do planning-team members exhibit as they watch their plans being implemented.

(From: J. William Pfeiffer and J.E. Jones. A Handbook of Structured Experiences for Human Relations Training. Pp. 32-40).

Session 21: Monitoring health education projects

Handout 21A: Field monitoring and evaluation of communication campaign

Trainer Attachment 21A: Monitoring and evaluating performance
Trainer Attachment 21B: Checklist for monitoring work performance diarrhoea treatment service
Trainer Attachment 21C: Examples of items to monitor

TOTAL TIME: 2 hours

OVERVIEW

The success of a health program depends on many things, not the least of which relate to the design of assessment mechanisms and their use in management and decision-making. Experience has shown that continuous and timely monitoring is essential to health programs.

In this session participants examine the tasks involved in monitoring. They develop checklists for items to monitor in their assigned project and decide when monitoring should happen.

OBJECTIVES

• To distinguish monitoring from evaluation. (Step 1)
• To describe the tasks involved in monitoring. (Steps 2-4)
• To develop a checklist for monitoring a health program. (Steps 4, 5)

RESOURCES

Handout:

- 20B Health Education Project Planning Worksheet (from Session 20)
- 21A Field Monitoring and Evaluation of Communication Campaigns

Trainer Attachments:

- 21A Monitoring and Evaluating Performance Flowchart
- 21B Sample Checklist for Monitoring Work Performance
- 21C Examples of Items to Monitor

MATERIALS

Newsprint, markers, monitoring forms used in the host country.

PROCEDURE

Trainer Note

Prior to this session obtain any forms and information on monitoring methods that are used in the host country. Distribute and ask the participants to read Handout 21A (Field Monitoring and Evaluation of Communication Campaigns) and be prepared to discuss some of the points raised in this article during Steps 2 and 3.

Step 1 (15 min)
Distinguishing Monitoring From Evaluation

Ask the participants to define monitoring and evaluation and to state why and when these two processes should be done (see trainer note below).

Tell the participants that for the rest of this session they will be examining the general tasks involved in monitoring. Distribute or put on newsprint the flowchart from Trainer Attachment 21A (Monitoring and Evaluating Performance). Tell them that they will be examining the following list of tasks:

- Determining what to monitor
- Determining how and when to monitor
- Developing checklists for monitoring
- Solving problems identified through monitoring and
- Providing feedback to health workers after monitoring.

Trainer Note

The definition of monitoring includes the notion of routine checking of work or performance which occurs within the context of a program or project implementation and which has as its aim the provision of information on progress. Evaluation of an activity or performance implies comparing actual work to what was expected to be achieved (i.e., project objectives).

The participants should understand that routine monitoring and evaluation are two of the most important tasks to be done. The following points should be made during the discussion of why and when monitoring and evaluation are done:

- To determine why usage of a service and the quality of health personnel performance is up or down

- To determine how the health program is affecting the health status of the community

- To identify why targets/goals/objectives were or were not met

- Both processes should be done at regular intervals.

Conclude this step by informing the group that evaluation will be discussed in further detail in Session 22 (Evaluation of Health Education Projects). The remainder of this session will focus on monitoring processes.

Step 2 (25 min)
Determining What to Monitor

Tell the participants that the first step in determining what to monitor consists of identifying the objectives and planning the activities that they will do to achieve their objectives. Ask them to take out their Planning Worksheet from Session 20 (Developing a Health Education Project Plan). Ask for one or two volunteers to read their objectives, strategies and related activities that they listed on their plan. Record their information on

newsprint in columns using the same headings as stated on the worksheet. Have the group brainstorm a list of indicators that they could use to monitor these health education objectives and activities. Record the list of indicators under the column "Items to Monitor". Explain to the group that indicators are forms of measurement which include a standard or reference point against which the collected information can be measured and analyzed. If the group is having difficulty in correctly identifying monitoring indicators, present and explain the example fauna on page 2 of Handout 20B (Health Education Project Planning Worksheet).

Trainer Note

When discussing "Monitoring Indicators" you should point out that these indicators must be realistic in terms of what will be monitored and how that can be done.

Step 3 (15 min)
How and When to Monitor

Draw a new chart with columns labeled "Items to Monitor" (Indicators), "Methods for Monitoring" and "When to Monitor". Rewrite the list of indicators developed in the previous step under the first column. Ask participants to state different methods they could use to monitor their projects and to write them under the second column. Next record how often they think the monitoring process should be done (i.e., "When to Monitor").

Trainer Note

Encourage participants to discuss information gathering techniques they have used themselves, including those used during the training course and discussed in Handout 21A (Field Monitoring and Evaluation of Communication Campaigns).

There are several monitoring methods and techniques from which to choose. You should obtain information and forms on what, if any, methods are used in the participants' health program.

Present these country/program specific methods during this step. Also, the monitoring methods described below should be mentioned if the participants do not include them in their list:

- Keeping a diary of community activities and practices affecting their health status
- Observing health workers/Mothers
- Talking with or interviewing health workers/Mothers
- Reviewing health post records
- Talking with mothers at time of treatment and/or health education session
- Making home visits
- Reviewing individual health records
- Developing a check list of items to monitor.

In deciding <u>when</u> or <u>how often</u> to monitor, you should consider the following questions:

- How critical is it that work be done correctly?
- Is this an item that is often done incorrectly?
- What monitoring method will be used?
- How many items will be monitored?
- What time constraints exist, if any?
- What is the likelihood that the item may change from satisfactory to unsatisfactory over a period of time?

Tell them this chart and the checklists they will be developing in the next step should be attached to their planning worksheet.

Step 4 (25 min)
Developing A Checklist for Monitoring

Introduce this step by telling the participants that one simple way to ensure that they are actually monitoring what they planned to monitor is by developing a checklist of what to look for when monitoring an activity. Tell them that, in general, checklists should:

- be brief (that is, include only those items you consider very important to monitor)

- be easy to use (that is, designed so you can record your assessments of each item quickly and efficiently)

- include a section at the end where you can make written comments concerning any other problems identified and recommendations made.

Have the participants form their same pairs from Session 20 and tell them their task is to develop a sample checklist of things to remember to ask, observe and record during a home visit or during a health education session. Tell them they should select one example of an item to monitor from the planning worksheet they have been developing and make the checklist or questionnaire for that indicator. Ask them to write the checklist on newsprint.

Trainer Note

Sample checklists and examples of items to monitor are provided in Trainer Attachments 21B and 21C and Handout 21A, page 4. You may want to present these forms if the participants appear to be having difficulty. Ask participants to recall the discussions on what, how and when to monitor as they develop their checklist or questionnaire.

Step 5 (20 min)
Sharing Plans for A Monitoring System

Reconvene the group. Ask each group to post their newsprint and have as many groups as time allows to briefly explain their monitoring plan. Hold group discussion on the plans until all have presented, then review and compare them.

Step 6 (10 min)
Summary Discussion

Conclude this session by asking the participants to state how monitoring can be a useful tool in their work, what steps they would take in developing a monitoring system, and how they would use the information they collected to improve their project.

Trainer Note

The participants should understand by the end of this session that information obtained from monitoring has several uses:

- to assist decision making, especially in the short-term, for increased project effectiveness.

- to ensure accountability to all levels within the project hierarchy.

- to enable judgements to be made on personal and institutional performances.

- to provide objective means of gathering information that can be used to inform a health worker or others involved in the program, of work that is being cane well and should continue, as well as ways to improve their work. In other words as a means for providing useful "feedback".

Tell them that they should develop their monitoring indicators and methods they will use to monitor their individual project plans as stated an their planning worksheet on their own. Tell them you will be reviewing their plans during the next sessions.

Handout 21A: Field monitoring and evaluation of communication campaign

Field Monitoring of Communication Campaigns Once an information campaign has been launched, almost immediately questions such as the following begin to arise. "Is it going as well as hoped?", "Is the campaign weak or failing in some respects?", "What parts of it are weak and what parts are strong?", "What adjustments are needed?" Those who are sponsoring and paying for the costs of the programme do not want to wait until the campaign has run its full course to get answers to these questions. They want (and deserve) answers to these questions after the campaign has been in operation for only a few days. Factual evidence that can save time and money and prevent failures (or make success even more complete) is needed urgently at the mid-stream stage of a communication campaign.

"Field monitoring" or "midstream evaluation" is a special subtype of communication research which has the capability of providing answers to these questions. It is not a single type of research activity, but a rapid assembly of bits and pieces of evidence and data which, when put together, will provide an approximately accurate picture of how the intended audience is responding to the campaign. It is not necessarily something which is done only once during the course of the campaign. It may be desirable to take monitoring "soundings" at weekly, biweekly, monthly or quarterly intervals. The amount of detail, the frequency of taking of soundings, and the amount and type of analysis performed must depend upon the nature of the project and the context in which it is being

performed. The notes which follow are intended to be a general guide, which must be amplified and modified to fit individual projects.

In order to be useful and effective, each episode or sounding by field monitoring must have the following characteristics

1. It must be done quickly-the information is needed now;

2. It must be done cheaply-most communication campaigns have zero budget for monitoring;

3. It must focus on a few specific questions of critical import to the success of the project;

4. It must supply reliable and valid date within the limits of tolerance of accuracy required by the decisions to be made.

Devising a monitoring procedure which conforms to the above specifications is not as difficult as might seem at first. Luckily for most programmes, statistics or data which are correct within 10 or 15 per cent of the true measurements will be adequate for making the decisions that need to be made concerning the need to change the programme, or to continue with the original plans.

"*Hard*" versus "*soft*" data. One controversy which arises immediately in discussions of monitoring, is whether or not it is sufficient to interview informally a few respondents and write or make a verbal report on the general impressions gained from this exercise. "Soft" research of this type is all that is needed, some will contend. Others will insist that only collecting "hard" statistical data from a fully representative sample of the intended audience will be sufficient. Proponents of "soft" data will insist that check-lists and multiple-choice questions are inadequate (even though they make possible impressive statistics), because monitoring requires that people be allowed to criticise the messages in an uninhibited way-using words of their own choosing. The position taken here is that *both* of the above philosophies are correct. Good monitoring methodology involves taking the best ideas and techniques of each and combining them into a research procedure which will produce hard data where hard data is essential and soft data where soft data is essential. It also involves avoiding the pitfalls and weaknesses of each of these methodologies as they are usually practiced. Because "soft" data often interviews a biased sample of respondents' taken from only one single site, there is a grave danger of overlooking the wide variation in response which the campaign is revoking. Monitoring must take observations from a number of different sites, and it must develop some system for making sure that the respondents at each site arc not selected because they arc easily accessible, co-operative, or some other reason which might bias their reaction. Because "hard data" methods make it impossible for people to express their thoughts in their own words, good monitoring procedure calls for the generous use of open-ended questions which encourage the expression of frank opinions in an uninhibited fashion. Techniques of content analysis can be used to code these answers.

Sample size

Like all research, the precision of the monitoring soundings will depend primarily upon the size of the sample drawn and the procedures by which respondents are selected. Taking huge samples by highly precise sampling procedures consumes much time and

drives up costs. Inasmuch as most of the data must come from a mini-survey, carried out on a small sample of respondents within a very short time, the sample size will be a primary consideration. In general, a rapid survey of 50 cases, taken from 10 different localities widely distributed and varying in characteristics across the entire range of communities (five interviews being taken at each point) will provide sufficiently exact evidence to let the sponsor know whether he is succeeding or failing-and by how much and in what respects and why With a short questionnaire and with such a small sample, it is possible to conform to the four key specifications prescribed in the opening statement. If greater precision is required, a larger sample involving more sampling points can easily be planned-if time, manpower and funds are available.

Cost and timetable

If a 50-case mini-survey is prescribed as the major source of monitoring data, the ultimate costs and timetable can be estimated within a fairly small margin of error.

(a) *Interviewing time*
With a short questionnaire and reasonably good transport, one interviewer should be able to complete five interviews in one day. For 50 interviews a total of to person days will be required. If a total of 5 interviewers are used, the entire interviewing procedure can be completed within 2 days. (In order to avoid interviewer bias, it is recommended that not less than 5 interviewers be used.)

(b) *Coding of interviews*
The "hard data" items on the interview will be self coded (pre-coded). The "soft data" (open-ceded) items will require only very broad content-analysis coding. One person c" code the 50 interviews ID 2 days. Coding can begin as quickly as interviews begin arriving from the field, so that the completion of coding can be achieved within one half-day after completion of interviewing.

Tabulation

The statistics needed to generate "hard data" are usually only simple frequency counts or cross-tabulations. The 50 cases can be hand-tallied by one person working one day. If a counting sorter is available, it will be faster and more reliable to punch cards and make the tabulations by machine-within an hour or less. But machine tabulation is not important unless some fine points are to be explored using sophisticated statistical procedures. (Some of the most powerful and complicated statistical procedures involve drawing useful conclusions from very small samples of data. Therefore, if a computer is available, it is possible to follow up the first preliminary monitoring with a more complete and precise one.)

Total timetable

A complete monitoring exercise can be carried out within one week as follows:

Monday (first day). Finalize the questionnaire, duplicate the questionnaire and instruct the interviewers. Give out field assignments.

Tuesday (second day). Begin field work. Interviewers must be transported to the sample sites and must be transferred from interview to interview quickly. Ideally each interviewer should be driving his or her own vehicle in order to minimize time consumed.

Wednesday (third day). Complete the interviewing. If interviewing lagged the first day add additional interviewers or arrange to work longer hours to complete the task. Begin the coding. As each interview is coded it can be handed over to the hand tabulator for tabulation.

Thursday (fourth day). Complete the coding and hand tabulation. As quickly as the last interview is coded and tabulated the data should be handed over to the analyst. The analyst meanwhile has been studying the preliminary results of the hand tabulation as they are made so that he already knows what the major findings will be. He begins writing his report. By working in the evenings he finishes.

Friday (fifth day). The report need be only a few pages with a few simple statistical summaries and tables. It can be completely typed (the tables can be duplicated copies of the worksheets) by noon. The afternoon of the fifth day can be devoted to a presentation of the findings to the programme director and a general discussion of what implications they have for the campaign. Decisions for change and revision can begin to be reached.

In most cases there will be adequate time to carry out these steps at a somewhat slower pace. The above timetable is presented only to show the spirit and speed which is possible in good monitoring research.

Total cost of monitoring

The total cost of one episode of monitoring is less than $1,000 US. The cost at overseas sites should be considerably less. The following is the breakdown of costs for a 50-case mini-survey:

Interviewers-10 person days at $25 per day	$250
Typist-2 person days to type questionnaire, report	50
Coder end hand-tabulator-3 person days combined	75
Supervision of interviewing and coding	100
Transportation of interviewers	200
Salary for analyst study director	150
Incidental expenses	50
Total cost of monitoring "sounding"	$875

The above costs cover all expenses. If the manpower is obtained simply by transferring to the project personnel which are already on the payroll, the out of-pocket costs are almost zero- involving only the transportation and incidental expenses.

Inasmuch as most communication campaigns run to many thousands of dollars, the expenditure of the above amount of funds could be a most valuable investment. The modest cost makes it easier to justify two or more rounds of monitoring if the campaign is a prolonged one.

The Field Monitoring Interview

One secret of effective monitoring is to limit the enquiry only to a few questions that are of crucial importance for guiding the campaign. This is no time for the researcher to exercise his general scientific curiosity. Instead he must justify every item placed on the questionnaire in terms of how directly it is related to questions that have been raised about the adequacy of the campaign. In most-eases this will limit the questions to five categories of items:

1. Is the intended audience receiving the message ?

2. Is the intended audience comprehending the message and remembering its contents?

3. Does the intended audience accept or reject the content of the message?

4. Is the aver-all reaction of the audience toward the campaign favourable or unfavourable? What do they find offensive?

5. Is the intended audience responding to the message by changing its behaviour in ways desired by the campaign directors?

Good monitoring interviews will contain questions which will obtain valid data on each of the above points. It will be confined to these categories of questions plus a few "demographic" questions concerning the basic characteristics of the respondents needed to interpret the results.

In order to illustrate a typical monitoring questionnaire, a crude prototype has been developed and presented as Appendix A. The exact wording of the questions would be done in terms of the local language and dialect. The wording given is intended only to convey the meaning. An example from nutrition is used, but the topic could be any one of a wide variety of programmes which are the subject of development communication.

The monitoring interview is so short that it can be completed in 20 minutes or less in most cases. Allowing 10 minutes for general rapport-building conversation and close-off, a total of 2.5 hours of actual interviewing time would be required per day to obtain 5 interviews. The remaining 5.5 hours could be spent in travel between interviewers. This gives a generous one-hour travel time between interviews.

Analysis of the Data

The responses to the questionnaire can be tabulated to fill in the following data-sheet.

1. Percentage of respondents receiving messages via each medium:

	Per cent

Home visits	_____
Group discussions	_____
Radio programming	_____
posters	_____
Leaflets or printed material	_____
Other media	_____
Received no message, any medium	_____
Received message via personal contact only	_____
Received message via mass media only	_____
Received message via both mass media and personal contact	_____

2. Percentage able to recall content messages. (Develop score):

	Per cent
High content recall	_____
Medium content recall	_____
Low content recall	_____
Received message, can recall nothing of content	_____
Did not receive message at all	_____

3. Percentage liking message presentation (by those receiving):

	Per cent
Home visits	_____
Group discussions	_____

Radio programming	_____
Posters	_____
Leaflets	_____

4. Percentage rejecting the message (by those receiving):

	Per cent
Home visits	_____
Group discussions	_____
Radio Programming	_____
Posters	_____
Leaflets	_____

5. Knowledge level of respondents, by receipt of message:

Level of knowledge	Received no message	Received message via		
		Mass media only	Personal contact only	Both mass & pers.
High				
Medium				
Low				

6. Change in feeding and nutrition practices:

Yes	
No	

7. Talked to others about nutrition:

Yes	

If time permits, a sheet of the above tabulations can be prepared separately for male and female respondents, for old and young, educated and uneducated, for race or ethnic group, for income groups, etc. In every case the division must be a simple dichotomy because of the small number of cases. If a tabulating machine is available, the preparation of these supplementary cross-tabulations is made easier.

Content analysis of the verbatim responses to open-ended questions

No effort should be made to perform a statistical analysis of the verbatim responses to the open-ended questions in addition to that called for by the above summary. Instead, a typist should rapidly transcribe on a single set of pages the responses to each question, separately. These responses should be read and discussed in the evaluation, much as they would be in any interview which had relied on the "soft" data-collection approach. These specific comments can be invaluable in understanding and interpreting the reaction to the survey-what is wrong and what is going well.

Advance planning

In order to be effective, the field monitoring research must be planned well before the communication campaign begins. Because there will be need for rapid action, the questionnaire should be drawn up and pre-tested beforehand. The interviewers should be identified and instructed beforehand. The sampling sites and the plan for transporting interviewers to them should be drawn up beforehand. The coding and tabulation plan should be drawn up and tried out beforehand. In other words, there should have been a complete dress-rehearsal of the monitoring step before the communication campaign is launched. If this is done, all of the difficulties and delays that will be experienced will have been discovered and corrected. If the researchers wait until the campaign is already under way before they begin to develop a questionnaire and work up the research plans, the monitoring research will encounter many delays, there is a danger that the data will be poor, and that it will arrive too late to be of an) practical use. Advance planning is, therefore, absolutely mandatory.

Appendix A - A Prototype Interview for Field Monitoring of a Communication Campaign

A. Is the audience receiving the message?

1. Have you recently seen or heard or talked to anyone about (nutrition)?

Yes . . . . No . . . .

Ask following of everyone, irrespective of answer to above question:

a) Did anyone come to visit you in your home to talk about it?
b) Did you join in a group discussion where this was discussed?
c) Did you hear anything about this subject on the radio?
d) Did you see a poster or hoarding about it?
e) Did you see a leaflet or booklet about it?
f) Did you (see) (hear) (talk)...other media used in the campaign?
g) Did you talk about this with a friend or neighbour?

B. Is the intended audience comprehending the message and remembering its content?

Questions 2, 3, and 4 are to be asked for each item in Question I for which a "Yes" answer was obtained.

2. Will you please tell me as much as you can remember of what v as said about (*nutrition*) in the (*medium*)? *Record the response word for word as nearly as possible, for content analysis.*

Probes

a) Did they want you to try out a new thing? What did they want you to do?

b) Did they want you to stop doing something you have been doing? What did they want you to stop doing?

c) What reason did they give for wanting you to do these things?

C. Is the reaction of the audience favourable or unfavourable?

3. What was your feeling about this (*medium*)? Did you like or dislike (hearing) (seeing) (participating in) it?

If disliked: What was wrong with the (*medium*)? What caused you to dislike it? *Record word for word.*

D. Does the audience accept or reject the content of the message?

4. Did you think the information and advice given to you was correct or incorrect? Was it partly correct and partly incorrect?

If incorrect (all or part): What did they tell you that you know is not right?

Probe
What did they say that you know is incorrect? Record word for word.

E. Is the intended audience responding to the message by gaining knowledge and changing its behaviour?

5. Develop and insert a four-item knowledge test.

Example:

a) When a baby is weaned, is it better to feed the baby mostly (starch diet) or to feed it a mixture of (balanced diet)?

b) Suppose you were preparing a meal for children. Which of the following meals would be better to make them grow strong and healthy: a meal comprised of (traditional meal) or a meal comprised of (recommended balanced diet)?

c) Have you ever heard of "protein"?

Yes . . . . No . . . .

Which of the following foods has more protein?

Maize or beans?
Bread or cheese?
Carrots or chicken?
Oranges or bananas?

Which of the above foods is better for helping children grow strong muscles?

d) Have you ever heard of "vitamins"?

Yes . . . . No . . . .

Which of the following foods has more vitamins?

Oranges or maize?
Bananas or carrots?
Cabbage or beans?
Beef or bread?

Which of the above foods is better for helping children from getting sick?

F. Is the intended audience changing its behaviour?

6. Since you heard these message about (*nutrition*) have you changed the way you feed your children?

Yes . . . . No . . . .

If "Yes": What changes have you made?
If "No": What has kept you from making any changes?

a) Was it because you did not believe the messages?
b) Was it because you did not think it very important?
c) Was it because you could not get the foods you needed to make the change?

7. Since you heard these messages about (*nutrition*) have you talked with any neighbours or friends about (*nutrition*)?

Yes . . . . No . . . .

a) how many persons have you talked to? Who?

b) Do most of these people believe in eating mostly (starch diet) or do they believe in eating a mixture of (balanced diet)?

8. Characteristics of respondent:

a) Sex ... Male/Female.
b) How old were you on your last birthday? (Estimate to nearest 5 years if age not known.)
c) How far did you go in school? Husband .... Wife ....
d) Occupation of husband
e) Measure of income or wealth
f) Ethnicity or race
g) Number of children in family

(From: COMMUNICATIONS FOR SOCIAL DEVELOPMENT IN AFRICA, A Report of a UNICEF sponsored International Workshop held in Arusha, Tanzania, Dec. 1976.)

Trainer Attachment 21A: Monitoring and evaluating performance

Monitoring Performance

Determine what to monitor		Determine how & when to monitor.		Develop checklists for monitoring		Monitor as planned
-Which items are not important to success on	→	- Observe health workers	→	- Checklists should be brief & easy to	→	4.0

the health service? - Which are most difficult to do? -Which are now to the health workers? -Which will give the best idea of whether all items are done well? -What do the people complain about? 1.0	- Talk wit health workers - Review Records - Talk wit mothers at time of treatment - Make home visits 2.0	use 3.0	

If when monitoring you identify any problems:

State any problems identified 5.0	→	Determine if problems are important to solve - How urgent is it? - How serious is it? - Is the problem getting better or worse? - Are several problems related to each other? 6.0	→	Describe each problem - Where does is occur? - With whom does it occur? - Whom does it affect? - When & how did it occur 7.0	→	Identify possible causes of each problem - Does the employee lack the skill or knowledge? - Does the employees want to do the work? - Are there obstacles preventing him from doing the work? 8.0	→	Identify & implement a reasonable solution to each problem to include - Removing the specific causes of the problem - Being affordable - Not creating a problem in delivery of another health service - Being realistic	→	Monitor the solution once it is implemented 10.0

							9.0	

Always after monitoring:

Provide feedback to health workers

- Comments on accuracy of records kept at the facility

- Suggestions for improving recordkeeping

- Information the might be helpful in preventing & solving problems

- Results of home visits to patients

- Congratulations on doing a fine job (Methods of providing feedback include group & individual meetings with healthworkers, newsletters, or phone calls)

                                                                                    11.0

(From: WHO Supervisory Skills, "Monitoring and Evaluating Performance)

Trainer Attachment 21B: Checklist for monitoring work performance diarrhoea treatment service

Name of Health Worker _____
Date (month/day/year) _____

	Patient 1		Patient 2	
	Satisfactory	**Unsatisfactory**	**Satisfactory**	**Unsatisfactory**
ACTIVITIES OF HEALTH WORKER:				
Assessment of dehydration				
Preparation of ORS				
Provision of treatment				
Instruction to mothers				
Recording of treatment on patient records				

MOTHERS UNDERSTANDING OF:					
Signs and symptoms of dehydration					
Prevention of dehydration at home					
How to prepare and give ORS					
Feeding during and after diarrhoea					

LOGISTICS	Satisfactory	Unsatisfactory
Availability of stocks of ORS		

Description of problems identified, if any _____

Comments (for example, work done especially well; possible reasons for unsatisfactory responses; changes in performance since last time monitored) _____

Recommendations _____

Signature of Supervisor _____

Worksheet for monitoring health worker performance in delivery of diarrhoea treatment services

ITEM TO MONITOR	MOST IMPORTANT ITEMS	THE ITEM COULD BE MONITORED BY:					HOW OFTEN TO MONITOR THE ITEM	
		Observing health workers or the health care setting	Talking with health workers	Reviewing records	Talking with mothers at time of treatment	Making home visits to observe and talk with	Monthly	Quarterly

					patients and mother		
ACTIVITIES OF HEALTH WORKERS							
Assessment of dehydration √						√	
Preparation of ORS							
Provision of treatment							
Instruction to mothers on what to do at home							
Recording of treatment on patient records							
Use of stock cards							
RESULTS OF ACTIVITIES OF HEALTH WORKERS							
UNDERSTANDING OF MOTHERS							
Mothers understanding of causes and risk of dehydration				√	√		√
Mothers							

understanding of signs and symptoms of dehydration							
Mothers understanding of prevention of dehydration at home							
Mothers understanding of how to prepare and give ORS							
Mothers understanding of feeding during and after diarrhoea							
LOGISTIC							
Availability of stocks of ORS		√		√			√	
Availability of ORS supplies (for example, measuring and nixing utensils)							
Organizati							

on of treatment area								
OUTCOME OF SERVICE								
Clinical outcome: recovery, referral for further treatment, or death						√		√
Feeding practices of mothers during and after diarrhoea								
Mothers practice of measures for prevention of diarrhoea								
Mothers satisfaction with service								

Trainer Attachment 21C: Examples of items to monitor

Mothers Understanding of Diarrhea
• Understanding of causes and risks of dehydration
• Understanding of signs and symptoms of dehydration
• Understanding of prevention of dehydration at home
• Understanding of how to prepare and give ORS
• Understanding of feeding during and after diarrhea

Outcomes

- Recovery, referral for further treatment, or death
- Feeding practices of mothers during and after diarrhea
- Practice of measures for prevention of diarrhea
- Mothers satisfaction with service

Activities of Health Workers

- Assessment of dehydration
- Preparation of ORS
- Provision of treatment
- Instructions to mothers on what to do at home
- Recording of treatment on patient records

Note that the list includes examples of items to monitor for diarrhea treatment. You may wish to modify this list for your own use depending on how much time you will be able to devote to monitoring and your role in the diarrhea! diseases control program. Remember that you will not always have to look at all the items on your lists every time you monitor.

(Adapted from: Who Supervisory Skills "monitoring Performance." p. 3.)

Session 22: Evaluation of health education projects

Handout 22A: Criteria for the evaluation of strategies
Handout 22B: Evaluation worksheet

TOTAL TIME: 2 hours, 30 minutes

OVERVIEW

By this session, participants have nearly completed all of the steps in planning a health education project. Still remaining is the important task of developing ways to evaluate the project.

Session 22 begins with a game that helps participants understand evaluation and how it is conducted. Later, the group forms working pairs (as in Session 20) to design specific evaluation criteria for their health education project plans.

OBJECTIVES

- To define evaluation. (Steps 2,3)
- To explain how and when to evaluate a project. (Step 3)
- To develop and critique plans for evaluating a health education project. (Steps 4, 5)

RESOURCES

Bridging the Gap Part IV
Demystifying Evaluation
Helping Health Workers Learn. Chapter 9, pp. 12-22

Handouts:

- 14A Questions for Evaluating Community Participation (From Session 14)
- 20A Planning a Community Health Project (From Session 20)
- 20B Health Education Project Planning Worksheet (From Session 20)
- 22A Criteria for the Evaluation of Strategies
- 22B Evaluation Worksheet

MATERIALS

Newsprint, markers, forms and handouts from previous sessions.

PROCEDURE

Trainer Note

This session builds an information from Sessions 16-21. If these sessions have not been used, you will need to expand the time in this session and review the eight steps of the health education process in relation to evaluation.

If you chose to do the "Hollow Squares" activity during Session 20 you may be able to delete Steps 1 and 2 of this session.

Step 1 (15 min)
Demystifying Evaluation

Ask the participants to select a game or contest with which they are familiar (i.e., baseball, soccer, basketball). Have them form three small groups and have one group represent members of the opposing teams, the second group the fans, and the third group the umpires/referees. Based on these three perspectives, ask each group to develop its evaluation criteria for deciding which team wins the game when no score is kept.

Tell them their criteria can range anywhere from how handsome the players are to how many times a player has committed a foul.

Inform them that they have 10 minutes to develop their list of evaluation criteria for presentation in the next step.

Trainer Note

The purpose of this activity is to introduce the concept of evaluation in a non-threatening way. Its objective is to reinforce or raise the point that to determine the success or failure of a project (i.e., winning or losing a game), people need to have a clear understanding to base their decisions on (i.e., something measurable or that provides specific details of what qualities are found in a winning team).

The reason for having the participants develop evaluation criteria from the perspective of players, fans and umpires/referees, is to introduce the notion that evaluation should involve people with different roles or perspectives including:

- Active participants (i.e., team members)
- The community at large (i.e., fans)

- Theoretically impartial observers (i.e., umpires/referees).

(An alternative to basing this activity on a sports game is to adapt it to evaluating who wins a beauty contest.)

Step 2 (20 min)
Processing The Game

Ask a representative from each group to read and list on newsprint the evaluation criteria they used in deciding which team won the game. After the groups have presented their criteria, discuss the following:

- What kinds of things do their criteria measure (physical qualities, ways the game is played)?

- Are each group's criteria basically the same?

- Do the criteria measure what is going on in the game (number of people getting to third base) as well as how this is happening (players are getting on base because the pitcher is walking them)?

- Would their criteria have been easier to develop or more realistic if: the group had worked together? it was determined and stated at the beginning what quantitative and qualitative factors usually affect or influence the outcome of a game?

Trainer Note

When discussing criteria, the participants should understand that <u>objectives provide the criteria</u> for evaluating the success or failure of a program and how you are doing. Objectives must contain statements that are measurable and observable and, prior to beginning a program (or game), what and when you will evaluate needs to be determined. Without having some quantitative or qualitative measures, this game in particular, and health programs in general, become nebulous areas to evaluate. One final point is the need to <u>involve the participants</u> in the program, and the community at large when designing and evaluating the program.

Step 3 (45 min)
Determining How and What to Evaluate

Introduce this step by telling the participants that evaluation can address more than one aspect of a project. The terms "process" and "outcome" are used to emphasize the generic purposes of evaluative efforts. Process evaluation is aimed at improving a project and answers the question "Is our strategy working?". Outcome evaluation is aimed at providing information for a summary judgement of the project and answers the question, "Did we succeed?".

Distribute Handout 22A (Criteria for Evaluating Strategies) and tell the participants, after they have read it, that same of these criteria should be used for evaluating the strategies and related activities they select for their projects.

Ask the participants to spend the next 10 minutes in work pairs reviewing their Health Education Project Planning Worksheets and to think about the following questions:

- Are the objectives stated in terms of what will be measured and when?
- What information on the Project Planning Worksheet will help them determine criteria for evaluation?
- What is the relationship between monitoring and evaluation?

After 10 minutes, begin discussing the foregoing questions. Ask someone to state:

- the purpose of evaluation
- information they need to collect to do the evaluation and how they will collect it
- who should be involved
- when the evaluation should be done

Distribute Handout 22B (Evaluation Worksheet). Using the example from Handout 20B (Health Education Project Planning Worksheet), walk the group through the Evaluation Worksheet.

Trainer Note

Participants should understand that evaluation can serve a number of useful purposes including:

- assessing the needs of the community prior to designing program objectives
- assessing the health educator's performance
- assessing what participants learned
- assessing the cost effectiveness of the project or activity
- assessing community participation
- determining the extent to which their objective was accomplished (i.e., did they train 10% of the community members to correctly mix and use ORS solution.)

Be sure participants understand the need to evaluate every part of a project (i.e., the strategies and related activities they have planned as the means to attain their objective) to be able to pinpoint strengths and weaknesses and make appropriate modifications. The evaluation criteria they should use when assessing strategies and related activities are adequacy, appropriateness, effectiveness and efficiency. These terms are defined in Handout 22A. Make sure the participants are comfortable with these terms.

By the end of this discussion be sure participants understand that:

- Monitoring is an integral part of the evaluation process. Through monitoring we gather ongoing information about project progress using pre-established benchmarks or milestones; we periodically ask the question, "Have we gotten as far as we had expected to get at this time?".

- Two types of evaluation need to be done, Process Evaluation and Outcome Evaluation. Process Evaluation, periodically looks at our strategies and the activities devised to implement the strategies and asks the questions: "Are we following the strategy we said we would follow or are we doing something else? If we are following our strategies, what

is our assessment of their <u>adequacy</u>, <u>effectiveness</u>, <u>appropriateness</u>, <u>efficiency</u>?" In <u>Outcome Evaluation</u>. we look at our objective, at the predetermined time, and ask the question "Did we accomplish what we set out to do?.

Step 4 (35 min)
Developing Evaluation Plans

Ask the group to form the same work pairs as in Session 20 and explain that their task for the next 30 minutes is to develop a plan for evaluating the health education projects they have elaborated an their Project Planning Worksheet. Because of the limited time, tell them to focus on only one of their strategies and related activities.

Tell them to reevaluate and, if necessary, modify their objectives and any other items they have listed on their Project Planning Worksheets. Ask them to attach the evaluation worksheet to the back of their Health Education Planning Worksheet when they have completed it, and to be prepared to describe their plans to the group in the next step.

Trainer Note

While the group is working in pairs, walk around the room to observe how the process is proceeding and assist any groups that seem to be having problems. Also refer them to pp. 79 of Handout 20A (Planning a Community Health Project) for further assistance or guidance in this Step.

Step 5 (25 min)
Presenting and Discussing Evaluation Plans

Reconvene the large group and ask for two volunteers to briefly describe their evaluation plans. After each presentation, ask the rest of the group to offer comments on the plan and suggest ways to improve it.

When discussing each plan the following questions should be asked:

- Did you base the objective on information you collected on assessing the needs or knowledge, attitudes and practices of the community (i.e., do you have baseline information to evaluate the change your program is to create)?

- Are your strategies and related activities adequate, appropriate, effective, efficient?

- Are you evaluating how well the program is being done (i.e., process) as well as the outcome after the time specified in your objective?

- Are you including the appropriate people in your evaluation?

- Are you conducting the evaluation at the appropriate times?

- Will the results you think you might obtain be helpful to you in determining whether to continue the program as is, change it or terminate it?

Close this session by emphasizing the importance of basing evaluation on objectives and clearly planning from the beginning how and when it will be done.

Handout 22A: Criteria for the evaluation of strategies

In order to compare actual and planned project performance you need to design measures that will give you the information you need to make these comparisons. When considering which strategy to implement you should apply any or all of the following criteria.

1) <u>Adequacy</u>: Given the size of the problem, will this strategy make enough of a difference to make it worth doing? For example, suppose there are 1,000 students with serious family and personal problems, and you have a strategy that will do a fantastic job of helping 10 of them. Is it worth doing?

2) <u>Appropriateness</u>: Is it "right" for you to use this kind of strategy? This question includes whether or not the strategy is appropriate to the organization's overall purpose and also whether the strategy is appropriate for anyone to use at all. An extreme example: most people would probably agree that mercy killing is not an appropriate strategy for eliminating the problem of potential dropouts and delinquents.

3) <u>Effectiveness</u>: How successful will this strategy be in reaching the stated objective? For example, if the objective is that 100 students resolve a personal and family problem, would the strategy of counseling students really enable that many to resolve their problems? If the objective is that 100 secretaries will improve their shorthand skills, would the strategy of providing training in taking dictation and transcribing shorthand notes really enable them to do a better job? Might increased on-the-job practice of shorthand be just as effective or more effective?

4) <u>Efficiency</u>: How costly is the strategy compared to the benefits obtained? Are the benefits obtained worth the money and the other resources used? Do we get the most for our money? For example, if the costs of counseling are less than the costs resulting from future delinquency, then it is an "efficient. strategy. If the cost of training a sales force is more than the amount of projected future income from increased sales, then this is an "inefficient" strategy.

(From: HIP Pocket Guide to Evaluation)

Handout 22B: Evaluation worksheet

EVALUATION CRITERIA	METHODS FOR GATHERING INFORMATION	WHO IS INVOLVED	WHEN
Process Criteria:	• Interviews with	Leaders, health	Weeks 8 and

Appropriateness of having leaders involved in locating/selecting media materials for use in the community	community members on reaction to & understanding of media mess ages	staff, CHWs, community members	12
	• Group discussion with leaders		
Effectiveness of using schoolchildren to distribute papers & pamphlets	• Survey of placement & #'s of posters & households that received pamphlets.	CHWs, teacher, children, community members	following distribution activities
	• Mtg. With school teacher		
	• Canvas of how people heard about ORT & demo sessions		
Adequacy of #'s of CHWs trained to facilitate demo sessions	• Ratio of CHWs to participants in demo sessions	TOT coordinators	continuous during TOT & demo sessions
	• Interviews with CHWs	CHWs	Continuous during sessions
Effectiveness of TOT in preparing CHWs.	• End of workshop evaluations		
	• Return demos	Participants in demo session	
Effectiveness of session in teaching people to mix ORS & SSS.	• Home visits		
Appropriateness of using demos & skills practice			
Effectiveness, efficiency & appropriateness of posters, pamphlets & radio to inform about ORT	• Survey of # of people reached	Health staff, CHWs, leaders, teacher, community	End of weeks 8 12 & 16

		members	
	• Interviews with community members		
	• Group discussion with leaders & health staff		
Appropriateness of home visits as follow-up to training	• Visit reports	CHWs, health staff & participants	Bi-monthly during the home visits
	• Interviews with CHW's & participants		
Outcome Criteria: 10% of community members can correctly mix & administer ORS & SSS	• Review of baseline data		
	• Review of clinic records to determine decrease in dehydration cases reported. Household surveys to assess ORT knowledge & skills	Health staff, CHWs, community members	Mid-term and end project
	Household surveys to assess ORT knowledge & skills		

(Developed by: CHP International, Under Peace Corps Contract Number PC 284-1011)

Session 23: Adult learning and nonformal education techniques

Handout 23A: The experiential learning cycle
Handout 23B: Using pictures to stimulate discussion
Handout 23C: Guidelines for using group discussion
Handout 23D: Guidelines for demonstration
Handout 23E: Training techniques

Trainer Attachment 23A: Role play on how adults learn best
Trainer Attachment 23B: Deciding when id use experiential learning
Trainer Attachment 23C: Can puppets be effective communicators?
Trainer Attachment 23D: "Love him and make him learn"

Trainer Attachment 23E: Some thoughts on the use of non-formal education in the real world
Trainer Attachment 23F: Comparison of teacher-centered and learner-centered education approach

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TOTAL TIME: 4 hours

OVERVIEW

At this point, participants have examined the entire eight-step process of designing and implementing health education projects. Now as they begin to consider individual activities and sessions, they need a good understanding of the ways in which adults learn best. Trough the use of experiential learning and appropriate nonformal education techniques the community can be involved effectively in all the steps of the health education process. Nonformal education (NFE) techniques can be used in community problem identification, health education, and evaluation. In this session participants discuss adult learning theory and experiential learning as applied both in the field and in their own training. Afterwards, they discuss and practice using NFE techniques such as drama, discussion and demonstration. They also examine educational and cultural considerations in the selection of techniques and materials for health education in the local community.

Session 23 is similar to Session 49 (Training Techniques and Materials) except that the techniques examined here are most applicable with community groups, whereas the techniques in Session 49 are most appropriate for health worker training courses.

OBJECTIVES

• To identify the four steps of the experiential learning cycle and describe how experiential learning can be used with adults in community health education. (Steps 1, 2)

• To practice use of drama, storytelling, discussion and demonstration for health education. (Steps 3-5)

• To list educational and cultural criteria for selecting nonformal education techniques . (Steps 6, 7)

RESOURCES

- Bridging the Gap Parts II and III
- Helping Health Workers Learn
- Appropriate Technology for Health: Health Education Methods and Materials
- Audiovisual/Communications Teaching Aids Resource Packet P-8
- From the Field: Participatory Activities
- Working With Villagers
- Teaching and Learning With Visual Aids. Unit 5
- Community Culture and Care. pp. 45-79

Handouts:

- 23A The Experiential Learning Cycle
- 23B Using Pictures to Stimulate Discussion
- 23C Guidelines for Using Group Discussion
- 23D Guidelines for Demonstrations
- 23E Training Techniques

Trainer Attachments:

- 23A Role Play on How Adults Learn Best
- 23B Deciding When to Use Experiential Learning
- 23C Can Puppets be Effective Communicators?
- 23D Love Him and Make Him Learn
- 23E Some Thoughts on the Use of Nonformal Education in The Real World
- 23F Comparison of Teacher-Centered and Learner-Centered Education Approaches

MATERIALS

Newsprint, markers, visual aids for role play in Step 1; large diagram of experiential learning cycle; pictures, equipment and materials for storytelling and demonstration

PROCEDURE

Trainer Note

You may want to read the following sections in Helping Health Workers Learn: Appropriate and Inappropriate Teaching, Chapter 1, pages 26-27 and Planning a Class, Chapter 5, pages 1-6 and 10-12. In Bridging the Gap see Planning Village Learning Experiences, pages 86-100.

For Step 1 ask two people to prepare for the health educator roles in the role play described in Trainer Attachment 23A (Role Play on How People Learn Best). Work with them to make certain that they clearly demonstrate the contrast between the two roles.

Participants will be leading different parts of this session and practicing several techniques. Ask these activity leaders to practice before the session and to state the objective and what group of people they are aiming to teach. If at all possible, have at least one host country staff member present to give his or her perspective on the use of NFE techniques in the local communities. Also invite members of the community to participate in the session.

Ask two participants to read and adapt one of the stories in Helping Health Workers Learn, Chapter 13 page 6, or adapt a local story to communicate a health message. Encourage them to locate props for use in the drama portion of the activity. Depending on the interests of the group, you may want to offer role play and puppets as alternatives to the story-drama. Helping Health Workers Learn and Bridging the Gap are also good sources for these techniques. Read Trainer Attachments 23C (Can Puppets be Effective Communicators?) and 23D (Love Him and Make Him Learn) for case examples of the use of songs and folk drama with puppets.

For Step 4, ask two participants to use Handout 23B (Using Pictures to Stimulate

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Discussion), Handout 23C (Guidelines for Discussion) and <u>Bridging the Gap</u> to select and prepare to lead a discussion using pictures, with one or more of the techniques shown.

For Step 5, ask someone to prepare a demonstration of a procedure such as mixing ORS Solution or preparing a weaning food, using the guidelines for demonstrations (Handout 23D).

During Steps 3, 4, and 5, it is important to follow the NFE activities/techniques with a brief discussion of how they may be used effectively in the field. Allow at least 10 minutes at the end of each of these steps for the processing.

The best way to teach nonformal education techniques is to model their use and to give participants as many opportunities as possible during the training to practice organizing and leading them. Throughout the CCCD training sessions there are many different uses of these techniques.

Step 1 (40 min)
Role Plays on Ways Adults Learn Best

Introduce this step by explaining that the group will be looking at ways that adults learn best and applying those ideas to design a health education session.

Ask the pre-assigned people to conduct the role plays. Have the group analyze each role play, and ask questions such as the following:

- How did you feel as a learner (community member) in this situation? As a health educator?
- What experiences made it difficult for you to learn?
- What experiences made you eager to learn?
- Based on this discussion, develop two lists: "Ways I Learn Best" and "Ways I Learn Least." Discuss which kinds of learning experiences work best in the community and the health center.

Trainer Note	
Same of the conditions that help and hinder learning that should come out of the discussion include:	
Ways I Learn Best	**Ways I Learn Least**
I have a say about what I need and want to learn	Teacher tells me what I need to learn
I learn practical useful skills	I Learn ideas, concepts with no practical use
I play an active role (I learn by doing)	I play a passive role (I listen only)

Teacher respects my knowledge and experience	Teacher dominates, talks down to me.

Use the stick figures illustrations in Trainer Attachment 23F (Comparison of Teacher-Centered and Learner-Centered Education Approaches) to summarize the discussion. For example:

Dialogue approach

Expert (top-down) approach

Step 2 (30 min)
Applying the Experiential Learning Cycle

Distribute Handout 23A (The Experiential Learning Cycle) and post a diagram of the cycle on the board. Using the example in the handout, explain the cycle as a way to select NFE techniques and design health education sessions based on how adults learn in daily life, that is through experience, reflection, decision and action in solving problems.

Ask participants to think about the role play they just observed. Have them match the activities of both health educators with the steps in the experiential learning cycle. Discuss and write their responses on the diagram. Refer to Handout 23A to guide them if they have difficulty in this task. Briefly compare the two approaches to community health education and discuss how each approach could affect the success of a health education project in a community.

Have the group examine the advantages and disadvantages of experiential learning and when it should be used in community health education (see Trainer Attachment B. Deciding When to Use Experiential Learning).

At the end of the discussion, tell the Trainees they will now participate in several NFE techniques which can be used to design experiential learning situations.

Step 3 (40 min)
Teaching Health Through Stories and Drama

Have the facilitators for this activity tell or act cut a story and lead the group in a discussion relating the problems in the story to problems in the local community.

After the drama and discussion, process the activity by discussing drama and story telling as health education techniques.

Some of the questions to discuss include:

- What was the purpose of this story? What were the main educational points emphasized during the story?

- How effective was the story in achieving its purpose?

- For what other purposes can you use storytelling and drama?

- What are the advantages and limitations of storytelling, songs and drama as health education techniques?

- Why is it important to combine discussion with storytelling and drama?

Technique	When used	Pros	Cons	Preparations needed

Step 4 (30 min)
Stimulating Discussion By Using Pictures

Have the participants who prepared for this step demonstrate the use of pictures to stimulate discussion. Encourage them to involve the group as actively as possible and to summarize at the end of the activity other ways that pictures can be used to stimulate discussion of community problems, to assess ongoing projects, or emphasize the need for particular actions such as sanitation measures.

After they finish, lead a discussion of the use of pictures with discussion activities. Ask participants:

- What was the goal of the picture discussion? Was it accomplished?
- What does the use of pictures contribute to discussions?
- For what purposes could you use pictures and discussion?
- When do you use discussions in general?
- What examples of good discussion techniques were used in the presentations?

Trainer Note
Use Handout 23C (Guidelines for Discussions) to guide the discussion and give the handout to trainees for a reference.

Step 5 (50 min)
Learning By Doing Through Demonstrations

Turn the session over to the person who prepared the demonstration. Make certain that he or she:

- asks one of the participants to repeat the demonstration.
- follows with a group critique of the return demonstration.
- gives all the participants a chance to practice the skill.

At the end of the demonstration activity, lead a discussion on the use of demonstration in health education. Use some of the following questions to guide the discussion:

- In what situations is it best to select demonstration as a health education technique?
- What steps do you follow to prepare and present a good demonstration?
- What are the main advantages and disadvantages of demonstration as a health education technique?

Trainer Note
Too often people assume that all that is needed for a demonstration is the equipment. Use

Handout 23D (Guidelines for Demonstrations) to focus the discussion on how to prepare and conduct good demonstrations. Distribute the handout for future reference.

In the discussion of demonstrations, make certain that the following points are discussed:

- It is important to prepare and organize all the materials before the demonstration.

- Proceed slowly step-by-step.

- Make certain that everyone can see the demonstration

- Give the participants a chance to practice the procedure or task. Practice is essential to master the hands on skills and perform them effectively.

- Praise correct performance and remedy errors in a pleasant way.

Step 6 (15 min)
Selecting Nonformal Education Techniques

Have participants discuss what they have learned about selecting NFE techniques from this and other sessions. Ask them to state some rules of thumb for selection of techniques. You may want to distribute Handout 23E (Training Techniques) to use during the discussion. Ask someone to summarize the rules on a sheet of newsprint.

Trainer Note

Basic questions to ask in selecting techniques include:

- WHO are the learners?

- WHAT do you expect them to be able to do by the end of the activity?

- How can you best INVOLVE THE LEARNERS in the activity?

- What is the PROBLEM? Different kinds of problems require different kinds of interventions and different types of techniques. For example:

Problem	Type of Action Needed	Possible Health Education Techniques
Lack of knowledge	information	posters, talks, displays, radio, newspapers
Influence of others	support	discussion groups, clubs counselling

Lack of skill	training	demonstrations, case study games, practice
Lack of resources	community organization	community surveys, meetings, committees linking with outside resources
Conflict of values	clarification of values	role play, stories drama, games

Step 7 (20 min)
Cultural Considerations in Selecting Nonformal Education Techniques

Ask everyone to take five minutes to recall and list what they have learned about ways that people communicate in the local area, since they arrived at the training site. These lists should include nonverbal as well as verbal communication. Some ideas to consider are:

- What types of social situations are most appropriate for exchanging what types of information?

- What local gestures, sayings, clothing styles, and other traditions are used in sharing information or entertainment?

- What are the traditional methods for learning? (e.g., how do people teach children to behave properly and to perform tasks?)

Have participants briefly discuss ways that local communication styles differ significantly from their own and give examples from their experiences. Ask them to discuss ways the communication patterns, cultural practices and differences that they just discussed would affect their selection of nonformal techniques and materials.

Some questions for discussion are:

- Would the techniques and materials used in this and earlier sessions work in the local community? Why or why not?

- How could they adapt some of those techniques and materials to make them more effective in this setting?

- When would it be inappropriate to use nonformal education techniques in the community?

Have them add these cultural considerations to their list of rules of thumb for selecting training methods and materials and post it for reference in later sessions.

Trainer Note
This step should be coordinated with cross-cultural training. If any host country staff members are participating in the session, ask them to give their perspectives during the discussion. Refer to what participants learned about the community in Session 12

(Community Analysis) and Session 14 (Working With the Community). Recommend Community Culture and Care, Chapter 3 (Communication) pages 45-68, and Chapter 4 (Language) for valuable background reading.

During the discussion point out that different life experiences and customs affect the ways in which people share information. For example:

- Who should talk with whom
- What topics different types of people are allowed to discuss
- Acceptable styles of interaction (direct or indirect conversation, quiet or loud voice, gestures, distance)

Remind the participants that rules for sharing information are learned as a part of growing up in a culture. You may want to raise some of the political and economic issues discussed in Trainer Attachment 23E (Same Thoughts on the Use of Nonformal Education).

Handout 23A: The experiential learning cycle

The experiential learning cycle is based on the way that people solve problems through daily experiences ("experiencing") interpret those experiences ("processing."), draw generalizations from them ("generalizing"), and determine how to make use of the learning in daily life ("applying").

Chart of the experiential learning cycle
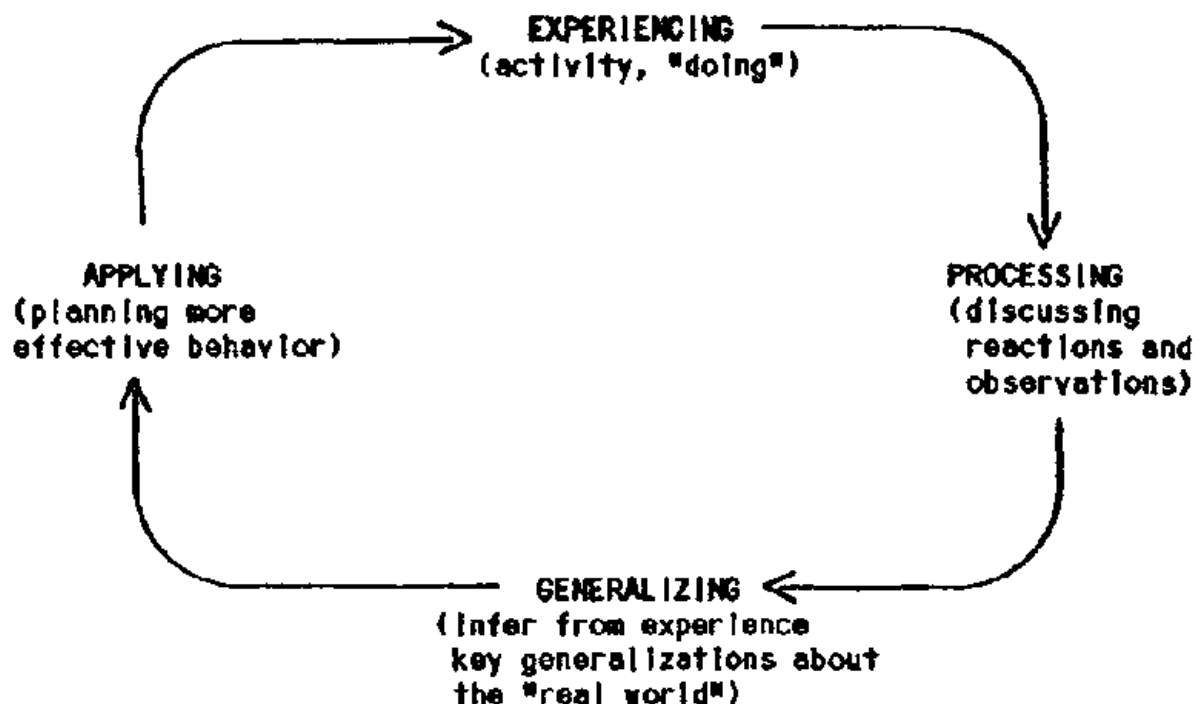
EXAMPLE from Daily Life

Experiencing:	A woman watches her sick child revived by ORS given first by the health worker and then by her after the health worker taught her how to mix and give it.
Processing:	The woman thinks about the recovery of her child, how difficult it was to pay for the packets and to remember how to mix it. She also thinks about the child who died last year of the same sickness. She discusses these thoughts with her sister.
Generalizing:	The two ladies conclude that the ORS drink is well worth the cost and effort because it can save their children's lives.
Applying:	They plan to go the clinic and get ORS packets again the next time their children have that sickness. Using the ORS packets again will be another experience, starting the cycle over again.

Handout 23B: Using pictures to stimulate discussion

There are many ways to use pictures with discussions. A few are listed below. You will find more ideas in Helping Health Workers Learn and Bridging the Gap.

Problem Picture
Show a picture illustrating general health problems in the community as a non-threatening way to identify local problems and discuss what can be done about them. A picture such as the one below, and ask people.

- What is happening here?
- What are the reasons this is happening?
- Could this happen where you live?
- What could we do together about these problems?

Problem Picture

Comparative Pictures

Two pictures, such as the ones below can be used to contrast desirable and undesirable situations, or harmful and beneficial practices. This provides a way to help communities analyze why health problems exist and consider specific alternatives.

Comparative Pictures
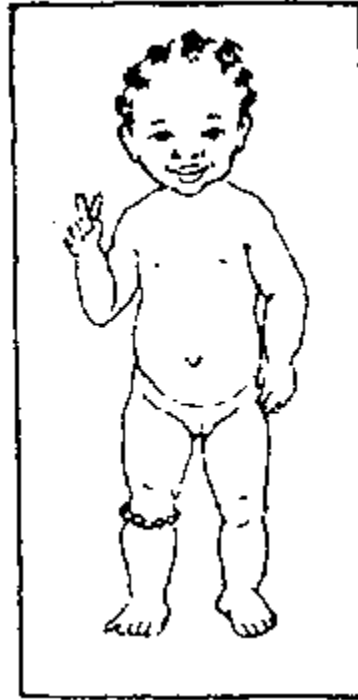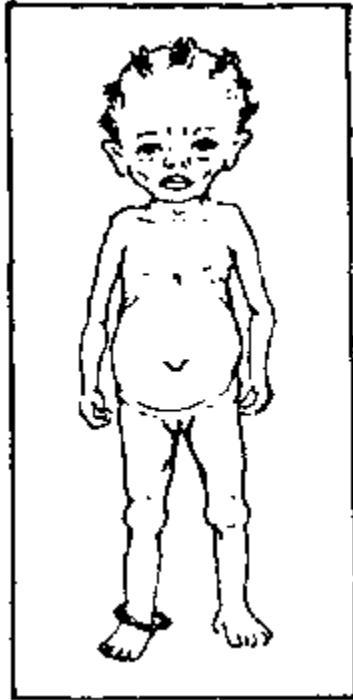
Picture Story with a Gap
This is a story about a health problem in the community that ends with the problem solved. The part of the story that explains the way that the problem was solved is created by community members. This involves them in analysis of their own situation and helps them to set goals.

Picture Story with a Gap

A Picture Series
A picture series can be used by a health educator to tell a health story. Given to villagers the pictures provide a way to express their feelings, concerns and ideas by creating their own picture story.

A Picture Series

<u>Pictures Drawn By Community Members</u>
Drawing pictures of community health problems and goals and is a way that community members can express themselves and examine their perceptions, needs and options.

(Adapted From: <u>Teaching and Learning with Visual Aids</u>.)

Handout 23C: Guidelines for using group discussion

<u>Prepare</u>

- Decide on your objective for the discussion.
- Prepare same open questions you can ask to start the discussion.
- Collect the visual aids you will use to begin the discussion.
- Practice using the visual aids if this is necessary.
- Find out as much as you can about the participants.
- Look at the location where the discussion will take place.
- Arrange the seating to increase interaction.

<u>Conduct the Discussion</u>

- Start on time.

- Try to make the group feel at ease.

- State your general purpose of the discussion. (It is assumed the you have specific learning objectives and this techniques is appropriate.) Ask if it fits their needs.

- Ask participants what are their objectives and explain how they will be covered in the discussion.

- Introduce the topic clearly and concisely.

- Explain the discussion procedures and define its limits.

- Encourage participation by all members.

- Control the over-talkative member.

- Draw out the shy member.

- Don't allow one or more members to monopolize.

- Deal tactfully with irrelevant contributions.

- Avoid personal arguments.

- Keep the discussion moving.

- Keep the discussion on the subject.

- Summarize frequently.

- Use audio-visual aids if available.

- The best discussion is often one in which the trainer talks only about 20 percent of the time.

<u>Summarize the Discussion</u>

- Review the highlights of the discussion.
- Review the conclusions which have been reached.
- Make clear what has been accomplished by the discussion.
- Restate any minority viewpoint.
- Get agreement for any action proposed.

<u>Evaluate</u>

- Watch learners during the discussion to be sure that they remain interested, not bored and restless.

- Ask learners how well they think the objective of the discussion was accomplished.

- How well do you feel the objective of the discussion was met?

(Adapted from: <u>Teaching and Learning with Visual Aids</u>.)

Handout 23D: Guidelines for demonstration

Types of Demonstrations

<u>Method Demonstration</u>: shows how to carry out a skill and explains each step as it is performed.

<u>Result Demonstration</u>: promotes interest and acceptance of a new practice by showing the actual results (benefits).

<u>Method-Result Demonstration</u>: combines the what why when how of an improved practice with physical proof of the benefits.

Conducting Demonstrations

<u>Prepare</u>

- Make certain the topic is timely and relevant.

- List all the steps of the procedure

- Collect and organize all the materials that you will need. Use the same kinds of equipment and materials that your learners will be using.

- Practice the demonstration, preferably in front of friends who also know how to perform the task. Get their feedback on your language, credibility and how easily it is to understand you. If you have difficulty with the language, you may want to use an interpreter.

- Arrange the place where you will give the demonstration so that everyone can see what you are doing.

Demonstrate the Procedure

- Make the demonstration as short and simple as possible.

- Establish rapport with the audience before starting the actual demonstration. You might want to talk with them informally before the session.

- Introduce yourself and state the topic of the demonstration. Immediately explain its relevance to the audience.

- Show the procedure slowly, one step at a time and explain each step as you finish it.

- Involve your learners in the demonstration as much as possible. Some questions you can ask are:

- What should I do next?
- Why is it necessary to do it this way rather than another way!

Make certain that everyone can see the demonstration. Encourage questions and stop to answer questions.

Review the Procedure

- Ask one of the participants to repeat the procedure while the others watch to see if they do it properly, and critique the performance when it is finished.

- Give everyone on opportunity to practice the skill.

- Praise correct performance and correct errors pleasantly.

- You may want to prepare a handout that summarizes the steps of the procedure in words and/or pictures as is appropriate for your learners.

Evaluate

- Can the learners repeat the procedure correctly?

- Could everyone see all the steps of the procedure?

- Did learners' questions suggest that the demonstration was confusing in any way?

- If possible arrange to follow up with another group session or home visits to make certain that the participants remember how to perform the procedure correctly and actually use it in their work or homes.

Suggestions for Demonstrations Topics

- How to mix ORS solution (see Session 40, Oral Rehydration therapy).

- How to make and use a gourd baby for teaching about oral rehydration (see Helping Health Workers Learn).

- How to mix weaning food (see Session 31, Breastfeeding and Weaning Foods)

- How to assess health status of an infant using a measuring strip (see Helping Health Workers Learn and Session 29, Recognizing Malnutrition)

(Adapted from: Teaching and Learning with Visual Aids. pp. 356-357 and Peace Corps Draft Materials.)

Handout 23E: Training techniques

	DESCRIPTION	USES
LECTURE	Presentation given to a group by a teacher	a) Introduce a subject b) Give information c) Encourage enthusiasm for a subject
DEMONSTRATION	Presentation which shows people what to do	a) Show a technique, procedure, or process b) Give information
PRACTICAL EXERCISE	Exercise in which participants learn by doing something	a) Develop and then evaluate skills b) To develop self-confidence in performing certain tasks
DISCUSSION	Interaction within a group where everyone states their views on a specific topic	a) Study a question or problem b) Analyse or evaluate a real or simulated experience
CASE STUDY	A description of a specific situation (written or dramatized) which is discussed by a group	a) Discuss problems within a context b) Introduce discussion of similar problems within a

		case study
PROJECTIVE TECHNIQUES(EG. DRAMA, PICTURES)	Using a stimulus to get individuals to discuss real life situations	Drama or pictures can be used to present problems faced by participants. Both help to "objectify" the situation so that participants can stand back and look at it critically.
ROLE PLAY	Two or more individuals are asked to respond spontaneously to a given situation, by acting and reacting the way they feel their "characters" might in real life	a) Give individuals opportunity to see others' attitudes, feelings, roles b) identify alternative ways of solving a problem
SIMULATION	Involve participants in a real life problem situation which requires them to respond and look for alternative solutions.	a) Allow individuals to experience decision-making situation with out assuming the consequences of their decisions. b) Examine potential problem and solutions within certain everyday situations.
BRAIN STORMING	Instead of attacking a problem logically, this technique encourages people to suggest many ideas quickly. without evaluating them. Only at a later stage is each idea assessed	a) Gather many ideas for discussion b) Trigger many ideas c) Acquire spontaneous solutions to problems

(From: Crowley and Etherington. How to Run a Radio Learning Group Campaign. p. 114)

Trainer Attachment 23A: Role play on how adults learn best

Purpose

This role play provides a concrete immediate experience to use as a basis to identify the basic elements to include in designing good health education sessions. Because several steps of the session rely on the role play as a focus of discussion, it is particularly important to work with the role players prior to the session and make certain that they are prepared to include all the necessary aspects of their roles.

The Setting

A rural community in the country where participants have been assigned. Villagers have little income, little education and generally poor sanitation. Their experience with health educators to date has been that the educators tell the villagers what to do to improve the health in the community but discourage any suggestions from villagers about needs and solutions.

Health Educator One, The Expert:

This role shows the top down approach to health education. The role player's actions should reflect the following outlook.

- The health educator knows what is good for the villagers.

- The villagers are considered ignorant.

- The information flows from the health educator to the village.

- The health educator provides answers, solutions to village problems.

- According to this health educator ," a villager who refuses to follow recommended practices is like a sick man. You have to force him to eat and he will thank you when he becomes better."

- The health educator assumes knowledge can be poured into adult learners like a tea cup.

- Villagers must be manipulated to change behaviors to accomplish government health goals.

Health Educator Two, The Facilitator

This role illustrates the community dialogue approach to health education. The role player's actions should reflect the following outlook.

- The health educator assumes that villagers know something about health and have reasons for their practices based on experience.

- The health educator shares knowledge.

- The health educator helps villagers identify and critically reflect on problems on their own.

- The health educator shows the relevance of what is known to what is being learned.

Both role players may want to refer to Helping Health Workers Learn Chapter 1 pages 1-3, 17-23 for ideas about acting out their roles.

Ask the participant who plays the facilitator role to include an opening and closing in the session (as described in Step 3). Also ask that person to use one of the evaluation techniques shown in Helping Health Workers Learn, chapter 9, pages 13-21.

The Villagers

Ask the rest of the participants to play the role of the villagers using the description of the setting as a guide.

Sample Health Message

Ask the role players to present one short simple health message, preferably using pictures. For example, the expert could present the message: "let us clean up rubbish in our yards to make the community healthier" as a command, showing a picture of a dirty village and another of a clean village. The facilitator could use the same two pictures to stimulate discussion about what is happening in the two pictures and what application it might have to the local community, to help the community identify their problem and decide what action to take.

Trainer Attachment 23B: Deciding when id use experiential learning

The following questions provide guidelines for deciding when to use experiential learning and when to blend it with more lecture-oriented learning for a particular situation.

1. How will the learner use what is learned? if the learner needs to apply what they learn to solve problems or do something, a more experiential approach is needed. If the learner only needs to remember the information, a more lecture-oriented approach can be used.

Example:
If the learner needs to correctly mix oral rehydration salts, demonstration and supervised practice are needed. If the learner wants to know about why ORS works, a talk with visual aids and discussion could be effective.

2. How often will the learner use what has been learned? The more often they will use it, the more experiential the learning should be.

Example:
If health workers will be recording children's height and weight on a growth chart daily, they need a demonstration, and supervised practice to learn how to do this. If health workers assist the head nurse once a year in preparing figures for the annual disease surveillance report, a talk reviewing the report form followed by a question and answer period will orient the nurses to the surveillance report task.

3. Will the learner need to adapt what is learned to different situations or use the learning as is? If flexible use of learning is necessary, a more experiential approach is needed.

Example:
A health worker who needs to be able to counsel different women in different ways about family planning methods needs to practice counseling in a situation where she can get feedback from others. A health worker can learn how to complete a standardized medical history form through a brief talk, demonstrating how to complete the form and a handbook that overviews the information needed for each answer on the form.

4. Is the learning likely to be disconcerting or confusing to the learner? If yes, a more experiential learning activity is required. Deciding what will be disconcerting and confusing requires knowing the community well.

Example:
In a community that already accepts the importance of immunizing children, but resists the idea of child spacing, the latter topic would require a more participatory approach such as using a series of pictures to stimulate discussion about the problems associated with having large families. Information about the schedule for the next visit of the mobile immunization team could be announced by the village crier and during a village meeting.

5. Is the learning completely new, foreign, possibly requiring unlearning things previously learned? If yes, then more experiential learning is needed.

Example:
In many communities the idea of giving a baby liquids during bouts of diarrhea goes against traditional practices of with holding water to stop diarrhea. A participatory technique, such as having mothers or children draw a "baby" on a plastic bag or a gourd and poke a hole in it, and pour in water as a basis to discuss what happens to the baby if you don't continue giving it water, can help people "unlearn" the practice of wit holding water. If breast feeding is commonly continued when an infant is sick, it is usually sufficient to praise the mother and encourage her to continue this practice.

6. Add other examples from your own experience and encourage participants to add some as well.

(Adapted From: C.R. Bell and R. Margolis, "Blending Didactic and Experiential Learning Methods")

Trainer Attachment 23C: Can puppets be effective communicators?

Primary Health Care and Community Development through Folk Media - An Experiment in the Colombo Slums

by Carol Aloyslus

"It is a new experiment that is being tried out to spread the message of Primary Health Care (PHC) to a population that knows very little about health and sanitation."

The nova Programme Support Communications approach, using traditional art forms to convey health messages to the target population, is aimed at supporting an on-going slum upgrading project - the Environmental Health and Community Development Project bunched three years ago between the government of Sri Lanka and UNICEF. Thy is the first time that such a communication project has been formulated to be carried out systematically and comprehensively in Sri Lanka.

A ten-member Committee has now been set up of representatives of government departments such as Colombo Municipal Council, Common Amenities Hoard, and the

Urban Development Authority, to monitor the project which will officially be inaugurated under the name Jana Okra (Awakening of the People).

Can drama be considered an effective medium of raising the overall quality of life of a people living well below the poverty line? Can an inanimate object such as a puppet be cast into the role of a communicator of health messages?

Simon, who is the UNICEF Consultant in this novel experiment, gives a positive reply to these questions. "Drama helps to put across any kind of message, especially to an uneducated audience, in a far more tangible and meaningful way than any discussion or film show can". But why Fog Drama? Why not a more modern form of drama? "Because," he explains, "this kind of drama belongs to the kind of people our messages are directed to and can be understood and appreciated by them. As for using puppets for this purpose it was just an experiment carried out to coincide with the traditional puppet shows staged at Vesak. The fact that it was a huge success proves that Puppets can be effective Communicators."

The two puppet shows staged on Vesak day this year were based on the Jataka tales revolving around the life of lord Buddha. The unique quality about them was that this was the first time that these religious stories were re-written in a modern context to dive an insight into the living conditions and innumerable problems of the shanty population in Sri Lanka.

Patachara, the first play, was based on the popular religious tale of an unfortunate woman who falls from society and is finally saved by the Lord Buddha. In the re-interpretation of this story, a rich girl falls in love with her chauffeur and ends up in a slum similar to the shanty garden in which the play was staged. She endures trials similar to those of the slum folk in that garden. The script poignantly describes the extreme poverty and hardships she endure, and the deaths of several of her children through numerous diseases which frequently occur in the shanties due to ignorance and poor sanitation. Finally she turns to prostitution to earn a living. Contracting a venereal disease she nearly ends her life but is saved by a Buddhist nun who helps her to enter the order and find peace of mind.

Throughout the play attention is focussed on the common problems of the Garden population - their dire poverty, malnutrition, the unsanitary living conditions, their lack of education, ignorance of basic health care, and the almost total lack of opportunities to better themselves. It also draws attention to the constant exploitation of these unfortunate people by the society around them.

Kisa Gothami, the second play, revolves around the story of a mother who is unable to reconcile herself to the death of her child until she is finally shown the truth by the Lord Buddha, when he sends her out to find a house in her village where no young child has died. She returns with the sad knowledge that every mother in her village had endured the same tragedy.

In the reinterpreted version of this popular Vesak play, the authors sought to highlight the prevalence of child mortality and morbidity among the slum population

The fact that the plays had been rewritten by members of the target audience, who had also been responsible for the entire production, was considered most encouraging since this voluntary gesture of the garden population indicated that an awareness had been created.

The plays had taken only three weeks of intensive preparation. Within that brief period, the UNICEF consultant was able to gather together the most talented youth of the garden and its immediate neighbours, guide them in writing the scripts, let them introduce their own ideas and problems into the plays, and then show them how to assemble the puppets and manipulate them.

This team of dramatists in the making not only prepared excellent scripts complete with the taped voices of about 25 persons in the garden who voiced the different characters in the play, they also assembled the stage and the sets.

(From: UNICEF. Population Communications Support Newsletter. Volume 7, Number 3, (December 1983). pp. 1,4-6.)

Trainer Attachment 23D: "Love him and make him learn"

This article has been edited by Claire Forrester, a Jamaican journalist, from a paper written by Jennifer Knight, Director of the St. Thomas project.

Children in school are a captive audience. In the parish of St. Thomas, Jamaica, they are being taught how to help bring up their own younger brothers and sisters. Parents, teachers, and children are responding well.

St. Thomas has long been regarded as one of the parishes in Jamaica most susceptible to poor health and the outbreak of disease. Many families live in extreme poverty with poor standards of housing, and face other environmental problems which affect the physical and mental development of their children.

Since February 1982 a joint programme involving UNICEF, the Ministries of Health and Education, and the Tropical Metabolism Research Unit (TMRU) of the University of the West Indies, has been making inroads into those conditions. Primary school children are at the heart of the programme, taking part as change agents in a teaching approach which departs from the usual primary school tradition.

Jennifer Knight, the Project Director, describes the results after one year as "very encouraging: we are getting there slowly but surely." The story of the St. Thomas project is, in very large part, the result of her hard work and dedication. Indeed, her indefatigable enthusiasm seems finally to be attracting the attention of the Ministry of Education, with which the programme's long-term prospects rest. According to Jennifer Knight: "Our long term goals are to integrate child health and development, and improve parenting skills throughout the country."

The project is based on the assumption that all aspects of children's development - social, emotional, intellectual, health and growth-are strongly influenced by their environment,

including the quality of child rearing. Parents' practices in hygiene, child-feeding, and adult-child interaction in the home, all affect children's development.

In St. Thomas, parents of very poor children do not have the right knowledge about hygiene and child feeding. They also fail to appreciate the importance of play. So children often fail to develop to their physical and mental best. In addition, health and social services are often inadequate at present, particularly in remote rural areas.

According to Jennifer Knight, the St. Thomas project took a new approach to solving these problems by using primary school children. Initially, the programme involved seven primary schools in the western part of the parish and later extended to the eastern side, gradually encompassing all the primary schools in the parish. The children were taught basic child rearing practices, focussing on hygiene, child-feeding and child development.

Another objective is to help the school children become good parents in their turn, and to improve the care received at present by younger siblings. Even the parents' knowledge and skills can be improved by their children. And the programme also seeks to improve teachers' knowledge.

The idea is to use the educational services to promote the health of the community.

Children themselves are agents of change

In most Caribbean countries, primary school education is free. Schools have in the main only been used for traditional educational purposes. However, primary schools are a natural channel for services aimed at improving the health and development of young children. They present a captive audience of older children who can be used as agents of change. Large families usually have children whose ages are spread over a wide range, and older children are expected to share in the care of the younger ones. In addition, Jamaica recently introduced compulsory education, which has helped to improve school attendance. Teachers are very respected members of the community.

Initially, working with children in Grade IV (9-11 years old), the programme concentrated on teaching three main topics: young child nutrition; promoting a healthy and safe environment; and child development.

Two weekly workshops were conducted with 14 teachers from grade levels four and five, for one school year Teachers were given detailed lesson pans with ideas and activities. They were encouraged to develop these and to discuss the children's response to the lessons. Modifications were made to ensure that lessons were easily understood and enjoyable. Much discussion took place on health problems, and measures they could use to solve them

The approach stressed participatory activities for the children rather than didactic teaching simulating the children's interest, and motivating them to take home child health messages to their parents and to look after their younger brothers and sisters more competently.

A series of songs and jingles was compiled, using folklore music and the Jamaican dialect, emphasizing all the important child health and development themes Pictures were designed, which the children coloured and took home. Mindful that the reading level of both the parents and the children was poor, the messages were largely pictoral although a few simple words were added.

Jennifer Knight reports that the project implementors found a higher level of illiteracy in the schools than anticipated but encountered a wide range of abilities among the children. Accordingly, only very basic child health and development messages were used in the curriculum, focussing on preventive activities.

Food for growth

In the first semester, children were taught about the importance of food for the young child's growth, especially in the early years when children grow rapidly. The following lines from one of the songs sharpen the point:

"When de baby reach four months old
There are things you should be told
Give the thick porridge from a spoon and dish
And den you will get all that you wish ..."

The values of breast-feeding the child at the right time was also emphasized. The chorus of the same song brings out the message:

"She get di breastmilk
(*day and night*)
She get it for a year
(*oh yes*)
She never get sick
(*oh no*)."

They were taught when to introduce porridge, how to serve food to the young and when to introduce the baby to the family pot:

"She can eat foods from de pot
(*at six months*)
All de vegetables fruit and meat
(*one, one*)
All de mashed foods, fish and peas
(*oh yes*)
Mek sure dem all nice and clean
(*ooh yes*)."

In the second semester, the children were taught how to make their environment a safe and healthy place to live in. These lessons emphasized that germs caused diseases; that certain insects and animals carry them; and showed how mosquitoes can be controlled.

Jingles also focussed on personal hygiene and proper food preparation:

"Germs like dirt
And garbage too
Germs will make you sick
Keep germs out
Germs like food
Dirty hands too"

(From: UNICEF News Issue 119, 1984, pp. 12-14.)

Trainer Attachment 23E: Some thoughts on the use of non-formal education in the real world

Susan Emrich

In recent years there has been a great deal of interest in the use of non-formal techniques of education for training of health and development workers. The term is often ill-defined and misunderstood, but in practice it usually means the use of techniques that encourage active participation of the members of a group in learning through a process of identification of a real problem, examination of the problem as a group and discovery of possible actions the group can take to solve the problem. The "something" being learned is frequently a piece of information or a technical skill, but the non-formal method of problem solving is learned at the same time.

Non-formal education used as a technique to teach more or less technical skills has its applications, but in practice it walks an unsteady line between its origins in philosophies of education as liberation or political consciousness raising, and conventional schooling. The outcome of the use of these techniques depends greatly on the composition of the group, the orientation of the group leader, and the surrounding social-political climate.

The use of non-formal techniques, when they work at all, quickly breaks down the formal teacher-student relationship and establishes a relationship of equality and mutual responsibility for learning. This seems to be an obvious and desirable step, but in the context of political or racial repression it is literally explosive. The simple fact of treating oppressed people with respect, listening, and providing a place where they can work together is a much stronger message than whatever the topic of the class was supposed to be. This is especially true of groups with no schooling.

Groups of unschooled peasants make very little separation between perceiving the solution to a problem and the action to implement the solution. They may be slow to become convinced, but they are very quick to move on to concrete action, and that is where they come into conflict with the constraints of the prevailing social-political system. More sophisticated groups, on the other hand, can work through a non-formal exercise very smoothly and come to all the right conclusions, but they are much less likely to carry their conclusions into action, and so are less likely to come into conflict with the harder realities of their situation.

The group leader who uses non-formal techniques may find that the techniques lead him into territory he hadn't planned to explore or to conclusions that weren't part of his private curriculum. This style of learning is a group process that may be very difficult for the leader to control. The following are a few examples among many from personal experience.

An Indian health promoter was trying out a new teaching aid with a group of Indian women. The material was a set of pictures about prenatal care. She showed the first picture to the group. It was a dull enough picture of a white coated male doctor, talking to a pregnant Indian woman. The promoter asked what the group saw in the picture. The replies came hesitantly at first, then in an angry flood: "He's scolding her., "He says she

came too late", "He's telling her she has to go to his private clinic and pay a lot of money", "He doesn't want to touch her", She is sad and wants to go home", "She can't understand his Spanish."

At this point the promoter had a choice between talking about the reality or continuing the fiction of talking about prenatal care which in practice is inaccessible to most people because of inadequate facilities, corruption and racist attitudes.

Another time I was teaching nutrition to a group of health promoters in a part of the country that is notorious for low wages. There were some very poor-looking people in the group including a young man whose skin and hair showed signs of vitamin deficiencies. I used a market game to teach price comparisons and the nutritional value of foods. Each person "buys" the foods he thinks best with the amount of money that he normally has to spend in a day for food. The foods can be real or pictures but they must be common, local and not expensive. The group evaluates each person's buying to decide how well they did with the money they had. The game went well with a lot of good natured joking and a minimum of technical information from me. When we got to the young man he said that he could not buy any of those common foods and in fact had not bought them for years. He was earning $.60 per day for plantation labor and had no other resources. His first two children had died of kwashiorkor and the third was born small and soon died. He said that his wife had stopped menstruating even though she wasn't pregnant and he wanted to know what nutritional advice I could give him for her. I had to say that there was no nutritional advice I could give him but that he and his wife should get away from that plantation and look for something else before they starved to death. Then another young man said the only real answer is to change the system that creates such poverty. I said yes but that was outside the limits of what I could allow the group to discuss in an open public meeting. The class broke up after that: most had learned a little nutrition and all felt bitter and frustrated at the young promoter's situation, and at my refusal to talk about it which they saw as hypocrisy.

In both of these examples the intrinsic power of the educational method combined with the reality of the people had overwhelmed the intended contents or subject matter. Non-formal education cannot be easily separated out into techniques for training on the one hand, and political awareness on the other. This is probably true of education in general but the particular power of non-formal education is that it is a collective process which promotes cohesion and cooperation within a group. The group as a whole discovers their problems, reaches conclusions and desires actions, which have a greater or lesser political impact. The same number of people reaching the same conclusions one at a time in isolation, if that were possible, would not have the impact or visibility of a group, and would not be able to carry their conclusions into action. Because of the things that the group is able to accomplish they become visible and may become targets for political repression.

Successful health education is especially likely to lead to visible action. One of the goals of health education is to get people to give up their magical view of disease causation for an understanding of cause and effect, and the use of non-formal group techniques is quite effective in this respect. However, the fact that most of the people have a magical view of disease is one of the corner-stones of the social-political system as a whole. If through successful health education people come to accept a cause and effect explanation of

disease they will start to feel the need for actions that the system is in no way willing to allow, and for services that the system can't or won't provide. In fact the magical view of disease causation can be seen as an adaptation of the culture to a situation of extreme helplessness maintained over a long period of time. It may be the only way for the people to avoid frustrating and dangerous conflict with the system. When a health worker is effective at helping people to discover cause and effect relationships and abandon their magical view of disease he himself becomes identified as a leader and becomes highly visible.
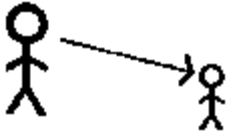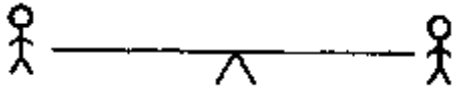
The health or development promoter often uses techniques that he has been taught to use in the relative safety of an officially approved course, given by government workers or foreign volunteers. In this setting he is protected by the status of an institution which has at least tacit support of the authorities; and by the composition of the group which will most likely be made up of schooled people who are used to playing with ideas and will not be inclined to take direct action of any sort. When he uses the same techniques with the illiterate peasants of the village all of these conditions change and he may be put in a very vulnerable position.

When non-formal techniques are used as a political tool, the group leader presumably knows where he is going and how to protect himself, but when they are used for other ends, the leader is often quite naive about the implications of what he is doing. If the attitude of the promoter is at times naive, the attitude of the agencies is more than naive: it is irresponsible. Both government and private agencies set up and finance programs to train promoters with very narrow, short-term goals in mind. Training in non-formal education is a means to the end of having X number of latrines installed within Y number of months, or some percentage increase or decrease in malnutrition.

But the use of non-formal education and the formation of cohesive, active groups in the community will not just go away once the latrines are built. People who learn how to analyze what is wrong with their water system are quite likely to move on next to what is wrong with their political system. And while the agency may have prepared people very well to deal with the water system, they probably did nothing to prepare them to deal with the political system. The agencies and the people who work for them should be willing to admit that their project, whatever it is, exists within an historical context and will inevitably influence that history. In the context of social-political change, there simply are no neutral actions. They should also realize that the people they train will become active participants in historical processes and need preparation for political understanding and action at least as much as they need preparation in technical matters. To fail to do this is irresponsibly and in really bad times comes to resemble a form of human sacrifice.

Trainer Attachment 23F: Comparison of teacher-centered and learner-centered education approach

TEACHER-CENTERED	LEARNER-CENTERED

1. Experience of the teacher valued as the primary resource for learning	Experience of all valued as resources for learning
2. Teachers as curators of knowledge of the past	Problem finding/problem solving teams
Grouping and classifying information into subjects to be studied now for use "someday"	**Learning by working on today's problems today**
3. Learners are grouped by grades and class	Learners group themselves according to interests
Teachers makes curriculum decisions for the Learners	**Facilitator helps Learners to diagnose learning needs**
4. One-way communication given by	Multi-communication shared by all
Teacher to Learner	**A community of Learners and Teachers**

5. Dominant Dependent	Teacher Learner	Reciprocity in the Teaching/Learning Transaction
A directing relationship		**A helping relationship**

(From: Ingalls, john D., A Trainers Guide to Andragogy. Waltham: Data Education, Inc.)

Session 24: Selecting and using visual aids

Handout 24A: Ways visual aids help people learn and remember
Handout 24B: Why pictures fail to convey ideas
Handout 24C: Design considerations
Handout 24D: Using pictures to communicate effectively
Handout 24E: Using visual aids

Trainer Attachment 24A: Why use visual aids?
Trainer Attachment 24B: Tanzania - Villagers teaching us to teach them
Trainer Attachment 24C: Examples of teaching situations

TOTAL TIME: 3 hours, 30 minutes

OVERVIEW

In Session 23 (Adult Learning and Nonformal Education Techniques) participants practiced using pictures to stimulate discussion, and discovered the effectiveness of combining visual aids with nonformal techniques. In this session they focus on visual aids, looking at other ways that they can use these aids in health education. They develop cultural, educational and design criteria for selecting visual aids and practice selecting materials for specific teaching situations.

OBJECTIVES

• To describe ways that visual aids can be used to help learning and understanding. (Step 1, 2)

• To select appropriate visual aids for a teaching situation, using criteria developed during the session. (Steps 3-6)

RESOURCES

- Teaching and Learning With Visual Aids
- Audiovisual/Communications Teaching Aids Teaching Aids Resource Packet P8 (Peace Corps)
- Helping Health Workers Learn, Chapter II
- Bridging the Gap
- On the People's Wavelength: Communications for Social Change, (UNICEF News 114/4)

Handouts:

- 24A Ways Visual Aids Help People Learn and Remember
- 24B Why Pictures Fail to Convey Ideas
- 24C Design Considerations
- 24D Using Pictures to Communicate Effectively
- 24E Using Visual Aids

Trainer Attachments

- 24A Why Use Visual Aids?
- 24B Villagers Teaching Us To Teach Them
- 24C Examples of Teaching Situations

MATERIALS

Examples of as many different kinds of visual aids as possible, newsprint, markers, pencils, paper for drawing.

PROCEDURE

Trainer Note

Prior to the session ask participants to look through Chapter II of <u>Helping Health Workers Learn</u> (Making and Using Teaching Aids) and identify at least one new use of visual aids that they would like to try out during this training course. Ask three participants to work with you to prepare and demonstrate effective uses of visual aids.

Also ask a few people to locate as many examples of different kinds of visual aids as possible and to arrange or display them in the training room. Assign this task enough in advance to enable them to visit local agencies to collect or borrow visual aids. Include in the display all the visual aids used in the training program thus far.

Ask two people to help you locate or prepare visual aids that illustrate the design considerations shown in Handout 24C (Design Considerations). Ask for one good and one bad example for each consideration.

Trainer Attachment 24A includes a short activity that you can use to introduce this session if time allows.

Step 1 (60 min)
Ways Visual Aids Help People Learn and Remember

Demonstrate at least three different effective uses of visual aids, for specific teaching situations with the help of the participants who prepared the demonstration with you. For each demonstration, state the objective, and describe the target group. After each one, discuss questions such as the following:

- What did you like best about the ways visual aids were used here?

- What did you like least?

- How well did the demonstration leader handle the visual aids? (Was the timing appropriate? Could you see the visuals clearly?)

- What different ways could you use this visual aid?

After all the demonstrations are finished, facilitate a discussion using the following kinds of questions:

- What kinds of information are best communicated using visual aids?

- How can visual aids strengthen nonformal education techniques?

- Can visual aids stand on their own for communicating health messages?

- What are some examples of effective use of visual aids during this training program? In your experience before the program?

Trainer Note

For these demonstrations, select topics in the selective primary health care activity areas covered in the training. Be sure that you demonstrate the use of visual aids when they are needed and not just added because you want to use a visual aid. The visual aids should be appropriate for the objectives, the learners, and communicate effectively (see the Design Considerations in Handout 24C). Do short, focused demonstrations and where possible include combinations of visual aids and health education techniques not yet used or used in different ways in previous sessions. Handout 24A (Ways Visual Aids Help People Learn and Remember) and Helping Health Workers Learn offer many ideas. Also, follow the suggestions in Handout 24E (Using Visual Aids) for the smooth and efficient handling of visual aids.

The outcome of the discussion should be answers to the questions:

- why use visual aids? And
- when should I use visual aids?

You should also have a list of ideas for teaching more effectively using visual aids. Make sure that the discussion includes use of visual aids to communicate health information, to increase the participation of the learners, to identify and solve problems, to evaluate projects, and to enable people to learn-by-doing. You can also write and discuss this Chinese proverb: "I hear and I forget; I see and I remember; I do and I understand".

Step 2 (15 min)
Gallery Tour of Visual Aids

Give participants 15 minutes to make a "gallery tour" of the visual aids arranged in the display. Ask them to choose a partner for the "tour". Have the partners discuss how they can use these materials in their work and share creative ways that they have used visual aids in the past. At the end of this activity give them Handout 24A (Ways Visual Aids Help People Learn and Remember) as a reference.

Step 3 (20 min)
Involving the Local Community in Visual Aids

Briefly summarize and discuss Trainer Attachment 24B (Villagers Teaching Us to Teach Them) or a similar example to highlight the importance of involving the community in selecting (or developing) and using pictures for health education. After the discussion distribute Handout 24B (Why Pictures Fail to Convey ideas) as a reference.

Step 4 (20 min)
Rules for Well-Designed Pictures

Show the group the pairs of pictures prepared earlier to illustrate the design considerations in Handout 24C (Design Considerations). For each pair of pictures, ask the group which picture is better. When they decide, ask them what makes one picture better than the other. Ask someone to make up a simple rule for choosing well-designed visual aids, based on each comparison. Distribute Handout 24C (Design Considerations) as a summary.

Step 5 (20 min)
Practice Selecting Visual Aids

Divide participants into small groups. Give each group an example of a teaching situation, using Trainer Attachment 24C (Examples of Sample Teaching Situations) as a guide. Ask them to apply what they have just learned about cultural and design considerations along with their earlier discussions of objectives to decide and discuss how they would select visual aids for that session. Ask them to select visual aids, if appropriate, from those displayed in the room and be prepared to explain their selection criteria and their choice to the other groups.

Step 6 (40 min)
Sharing Visual Aids Selections

Reconvene the large group. Ask each small group to report their conclusions and show the visual aid selected. After each report have the others assess the criteria used to select the visual aids and how well the visual aids fit the criteria.

After the reports, ask the participants to agree on three or four main criteria to use in selecting visual aids. Ask someone to summarize these on newsprint for future use. At the end of the discussion, distribute Handout 24D (Using Pictures to Communicate Effectively) and 24E (Using Visual Aids) as references.

Close the session by explaining to participants that they will be applying these skills in selecting and using visual aids in Session 27 (Practicing and Evaluating Health Education &scions) and in Session 28 (Planning and Implementing a Health Day).

Trainer Note

The following are the most important criteria for selecting visual aids:

- Skills, knowledge, attitudes, or organization stated in your health education objectives are accomplished more effectively and easily using visual aids.

- The visual aid is culturally appropriate.

- The visual aid is well-designed; it communicated the intended message clearly and simply.

- The visual aid works well with the health education techniques that you have chosen.

Handout 24A: Ways visual aids help people learn and remember

1. Visual aids can <u>make something small look larger</u>. A large picture of the inner ear can help students study the small parts. A drawing or poster of an egg and sperm help learners understand what these things look like. Because the pictures are much larger than real life, learners can study thee carefully.
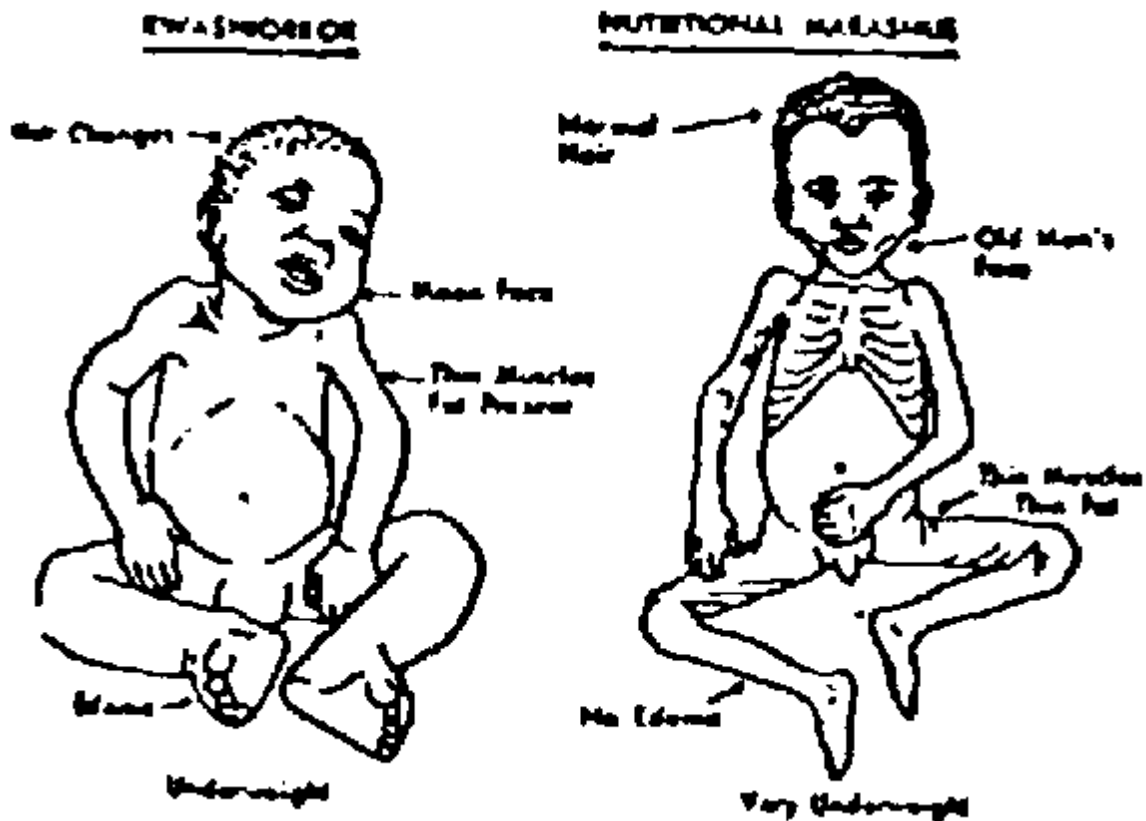
Make something small look larger
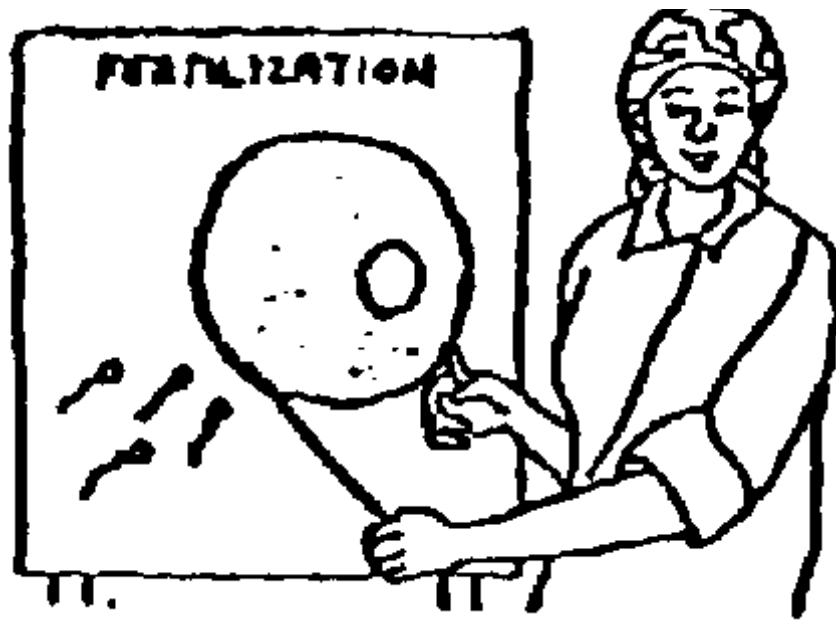
2. Visual aids help us <u>compare the similarities and differences between two things</u>. Show your learners pictures of two similar objects side by side, and they can look at the pictures and identify which things are the same and which are different.

Compare the similarities and differences between two things

The illustration here shows the drawings one nursing school instructor uses to teach her students about the differences in appearance of children with kwashiorkor and children with marasmus. She uses the pictures to help them learn the basic information, and then takes them to the clinic to see real children with these conditions.

3. Visual aids are an excellent way <u>to show the steps to follow in doing a task</u>. Mr. Kamwengu, a nurse tutor, uses a series of pictures like the ones here to teach kits students how to take temperatures.

Show the steps to follow in doing a task

4. Pictures can <u>show how something changes or grows</u>. One picture can show all the changes which take place. These kinds of pictures are good far showing how something happens. The example here shows how blood flutes spread schistosomiasis.

Show how something changes or grows

BLOOO FLUKES
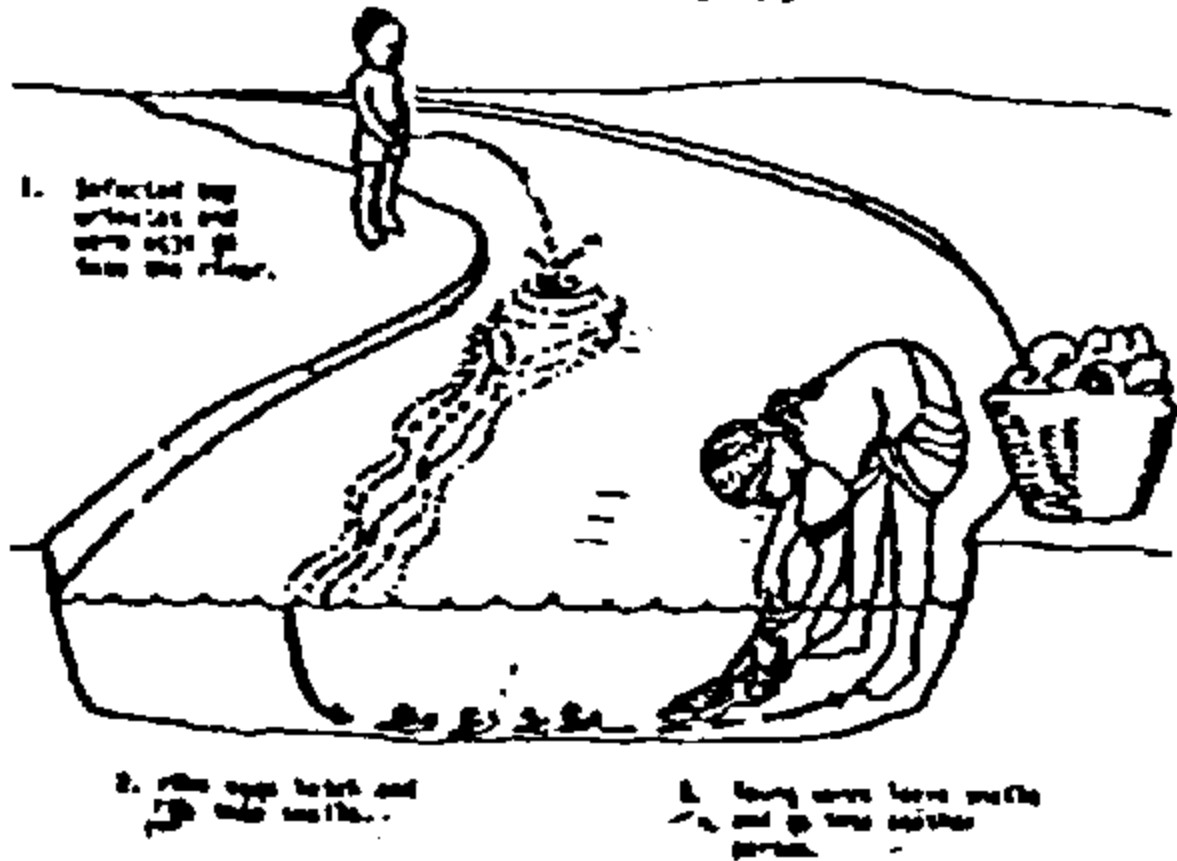
5. Visual aids can help learning by <u>providing a basis for discussion</u>. Host of the time, you want to be sure that everyone who loots at your visual aid will understand the same message. But sometimes it is valuable to use a visual aid which can be interpreted in more than one way.

Providing a basis for discussion

You could use this picture as the basis for a discussion by asking, What do you think this picture is about?. Often this is the only question you will need to ask. To keep the discussion going, you might ask other questions such as the ones below.

- Who are these people?
- What is happening in the picture?
- How do the people feel about it?

You can use other pictures like this one to start discussions in which the learners explore their own needs, feelings, attitudes, and expectations. For learners who will be doing any counseling, this knowledge and discussion of their prejudices and feelings is very important.

Pictures like this are also useful in community health work. A group discussion helps you learn quickly how the villagers feel about many things, and what problems need to be solved in the community.

Discussing their interpretations of pictures encourages people to observe, think and question carefully and critically.

6. You can also use visual aids to review or test your learners to see if they really understand. After instruction, you can ask learners to identify or explain parts of a picture or other visual aid.

Review or test your learners

Flannelboards are very good for this kind of review and learners seem to enjoy the activity. the community health worker in the picture here uses a folded blanket wrapped around a piece of wood as a flannelboard. She has been teaching the village women about nutrition, using the flannelboard as she talked about food groups. Afterward, she asks her learners to come up and place each food in its proper group on the board.

7. Visual aids can provide information when the trainer cannot be present. You cannot always be present when someone needs to ask you about something. Sometimes you have other work you must do or you must be somewhere else.

Provide information when the trainer cannot be present
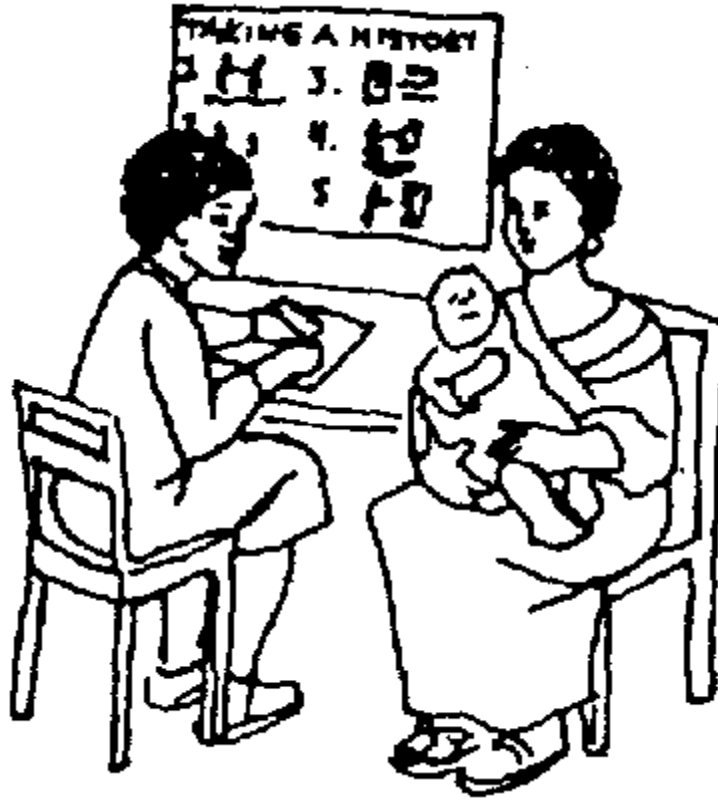
For example, Mrs. Macalou directs a community health clinic. She has one nurse's aid working for her full time. Mrs. Macalou needed to make time to see more clients at the clinic.

Mrs. Macalou made a poster to put over the table where clients check into the clinic. The poster shows the steps her aide should go through in taking a client's history and recording the person's complaint.

Now when her aide comes to work, she can help Mrs. Macalou by seeing all of the clients first. If Mrs. Macalou must be out of the clinic, the aide can still record the client's history and complaint.

Mrs. Macalou can come back to the clinic, look at the histories, and decide quickly which patients need to be seen first.

8. Visual aids can show people something the can't see in real life. The section on how visual aids can make small things look larger mentioned that visual aids help learners see things such as cells, which are impossible to see unless you use a microscope because they are too small.

Show people something the can't see in real life
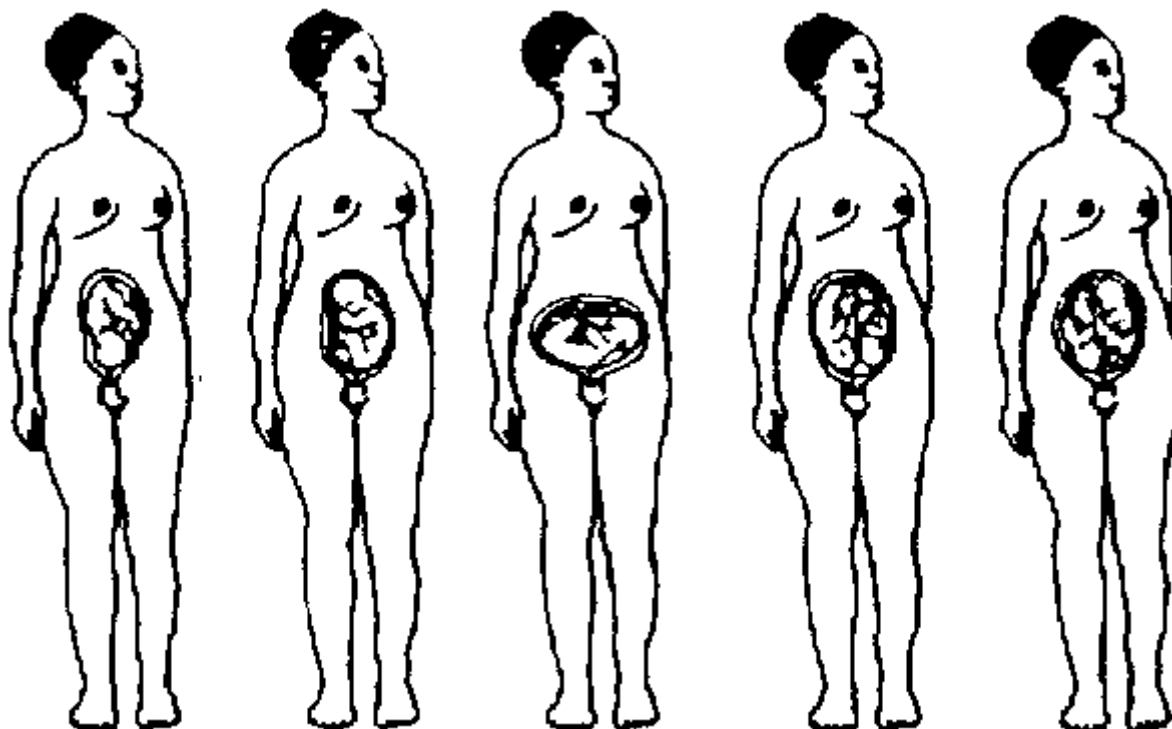
Sometimes it is impossible to see things in real life for other reasons as well.

Sometimes a visual aid is useful to show something that cannot be seen because it is inside the body.

Mrs. Hasan is a community health worker. She uses diagrams like the ones here to teach traditional birth attendants about the different positions the baby can have in the womb.

She discusses the pictures with the traditional birth attendants. Then she shows them how to feel the womb of a pregnant woman for the baby's head and buttocks.

You can also use visual aids to show your learners things which are impossible to visit in real life. You can show them pictures of an activity in a village which is too far away for them to visit. The nurse in the picture here has used drawings to make a display which she can use in clinic presentations.

You Can Have a Healthier Community - OUR Village Does

You Can Have a Healthier Community
OUR Village Does

BEFORE our cleanup campaign

AFTER our cleanup campaign

Some other examples of how visual aids can show us things that are impossible to see in real life are:

- a nursing instructor uses a series of pictures when explaining the growth of the fetus

- a nurse/midwife uses a paper cut-out held against her body to show mothers what the womb looks like and where it is located in the body.

9. Making their own visual aids is very useful in <u>helping learners discover solutions to problems</u>. When learners make their own aids and discover the answers for themselves, learning becomes an adventure. When people are having fun learning, they remember what they learn.

Helping learners discover solutions to problems
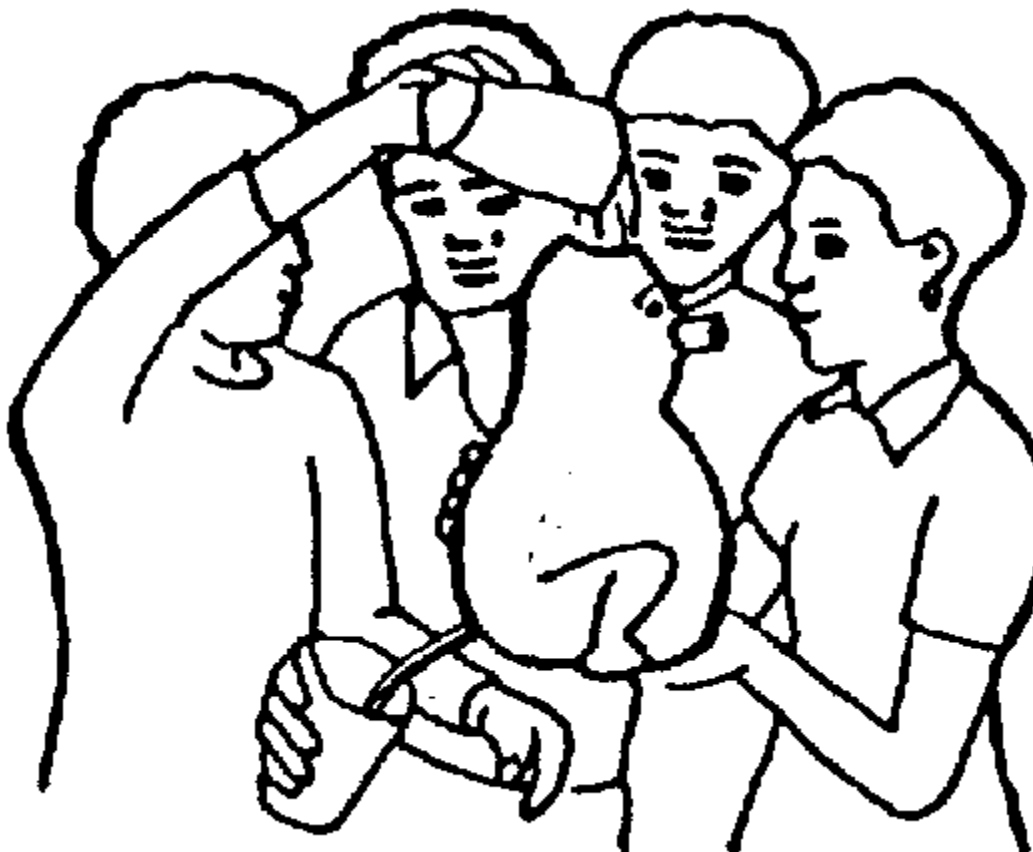
Mothers and children can learn about diarrhea and dehydration by making their own baby. from clay, tin cans, plastic bottles, or gourds. They can experiment with the principle of rehydration by pouring water into the "baby" and mending the different holes with "food".

10. Visual aids can <u>make a difficult idea easier to understand</u>. They do this by showing familiar people and things which illustrate the idea.

Make a difficult idea easier to understand

For example, suppose a nurse is counselling a family about the benefits of child spacing. She tells the family how child spacing means better health for the mother and for the children. But this is a new idea to the family. It is difficult to understand, because they do not know any other families who use child-spacing.

So the nurse shows the family some pictures which compare child spacing to the spacing of crops. Then the family begins to understand. They know from their experience that crops grow better if they are not planted too close together.

(From: Teaching and Learning With Visual Aids. Pp. 29-41)

Handout 24B: Why pictures fail to convey ideas

1. Villagers who are not used to looking at pictures may find it difficult to see what objects are shown in the picture.

"Reading" pictures is easier than reading words, but people have to learn to "read" pictures. This picture, intended to show how oral rehydration fluid is made at home, was shown to 410 villagers. Only 69 of them realized it was a picture of hands putting something into a pot. Ninety-nine others could see the hands but could not suggest what

they might be doing. And the rest of the villagers (242 people) did not see the hands at all -- 82 of them thought it was a picture of flowers or a plant.
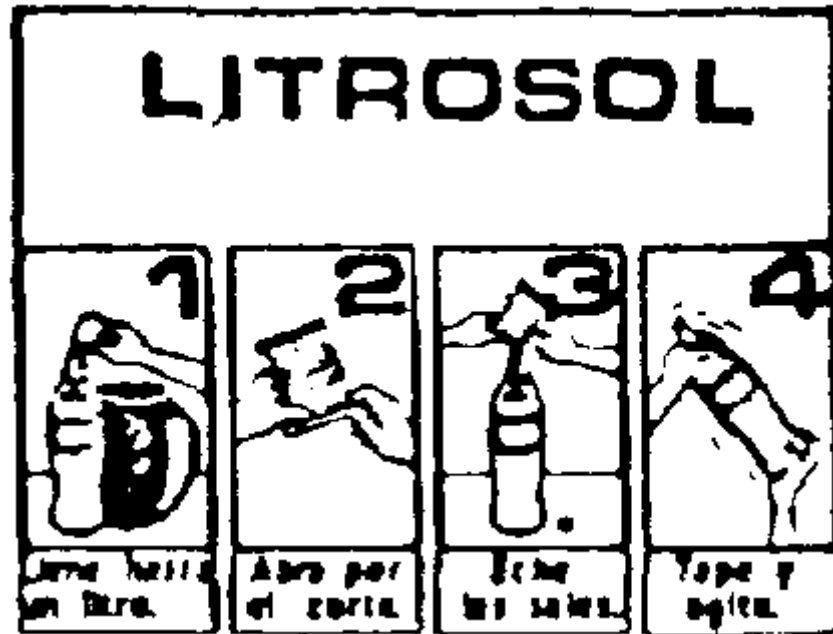
Picture

2. <u>Villagers do not expect to receive ideas from pictures, and must be taught that pictures can instruct</u>.

Staff members of the Honduran project, PROCOMSI, wanted to develop a set of visual instructions to remind mothers how to prepare a solution of oral rehydration salts from a packet. The question was whether the instructions would wore without teaching. The mothers were handed the packet of salts with the visual instructions facing up.

Picture

LITROSOL

1 2 3 4

None of the mothers perceived the series of drawings as "instructions." They seemed to think that the pictures were simply a product label. Several women tried to read the written instructions printed on the back of the packet but were able to understand only a few words. After no more than fifteen seconds of loaning at the packet, most mothers opened it and began sexing the salts in water which was available near the test site.

A later stage of the test consisted of pointing out to the mothers that the visuals were intended to convey information and "teaching" them what the series of drawings meant. This proved very easy, and mothers understood almost instantly.

3. Villagers tend to "read" pictures very literally. That is, even if the, recognize the objects or people represented in the picture. they may not attempt to see any link between the objects, or any meaning behind the picture.

4. Villagers do not necessarily look at a series of pictures from left to right or assume that there is any connection between the pictures in a series. This series of drawings is intended to shot one way in which diarrheal diseases are spread. It was tested in the Nepal study.
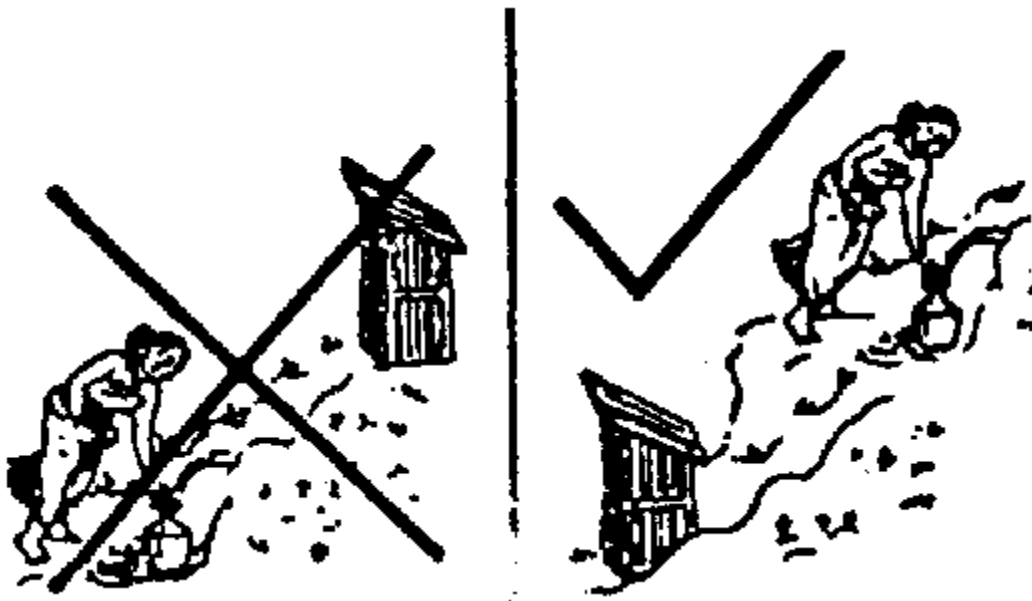
Picture

Less than half of the 410 villagers in the study looked at these pictures in order from left to right (37% of the looked at the middle picture first.) Hardly any of the villagers appeared to think that the pictures were related to each other.

Visually "illiterate" people do not "fill" in missing steps. Each message or step must be conveyed with another picture.

5. Pictures which try to convey ideas or instructions often use symbols which are not understood by villagers.

For instance, villagers may never have learned that a check mark can mean "right" or "good" and an "X" stands for "wrong" or "bad." Thus, symbols such as these are often misunderstood or simply ignored.

Picture

6. Symbols which represent a concept in one culture do not necessarily convey the same idea to another group of people.

Visual perception varies greatly from culture to culture. Finding the right picture to transmit an idea is usually harder and more complicated than picking the right word.

For example, in looking for a visual symbol to represent "menstruation," PIACT designers tried a number of symbols: in Mexico, a Kotex (brand of sanitary napkins) box was originally tested, but proved to be a satisfactory symbol only among urban women; a drawing of a roll of cotton was more successful in suggesting menstruation. In Bangladesh, a red spot at the <u>back</u> of a woman's sari was widely recognized to represent menstruation; in the Philippines, a red dot at the <u>front</u> of a woman's dress along with a calendar showing a date encircled were found to convey the idea.

Mexico: Cotton roll and calendar

Bangladesh: Red spot at back of woman's sari

Philippines: Red dot et front of woman's dress

(From: Population Communication Services, "Print Materials For Non-Readers").

Handout 24C: Design considerations

1. Are the Pictures and Words easy to see?

Picture

Should be: _____

LARGE

THICK

SIMPLE

VISIBLE

Instead of: _____

SMALL

THIN

COMPLI

INVISIBLE

2. Are the pictures and words easy to understand?
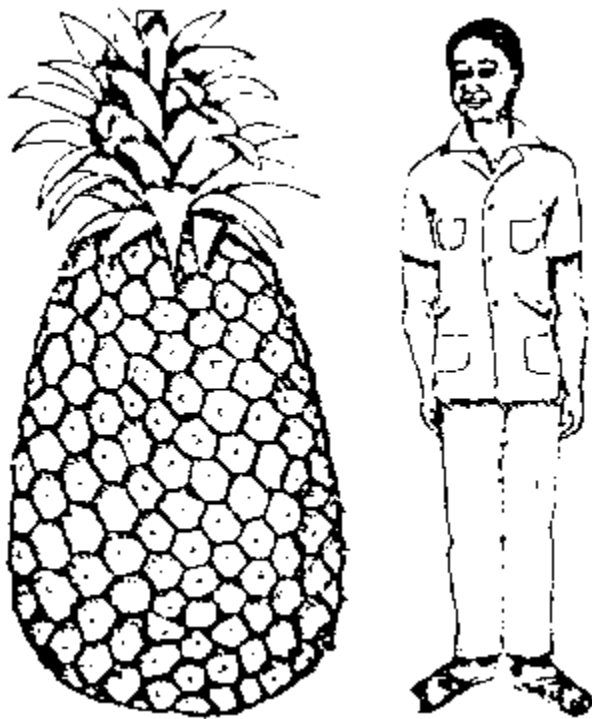
a) are unfamiliar words or graphic symbols used?

Picture

b) are all figures and objects in the same scale?

Picture

c) are full figures shown before showing parts of figures?

Picture

3. Is the information presented clearly and simply?

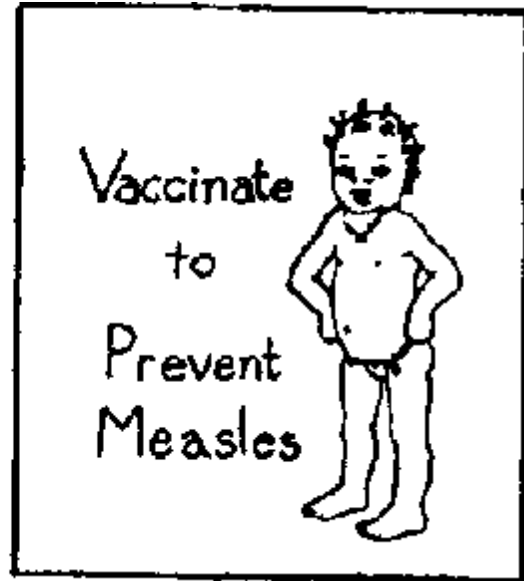a) are there any unnecessary details?

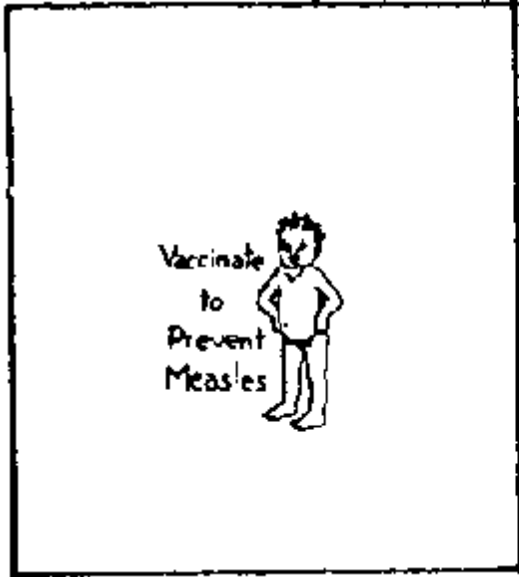**Picture**

b) is there one main idea for each picture?

The Menstrual Cycle
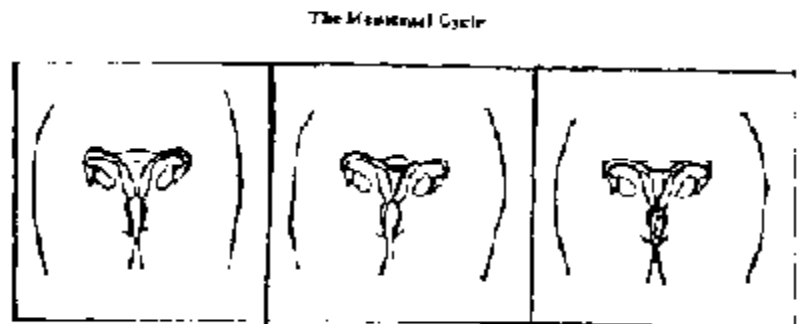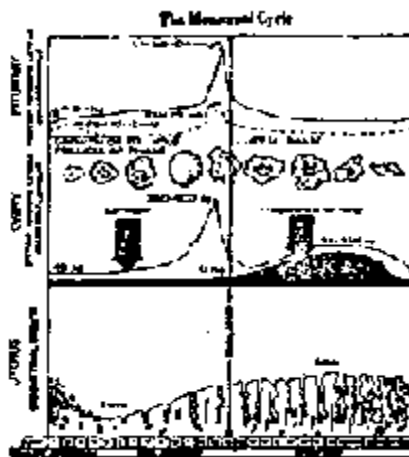
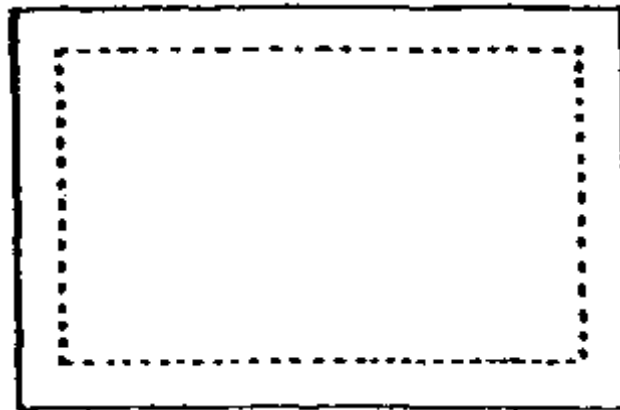4. Is each picture well organized?

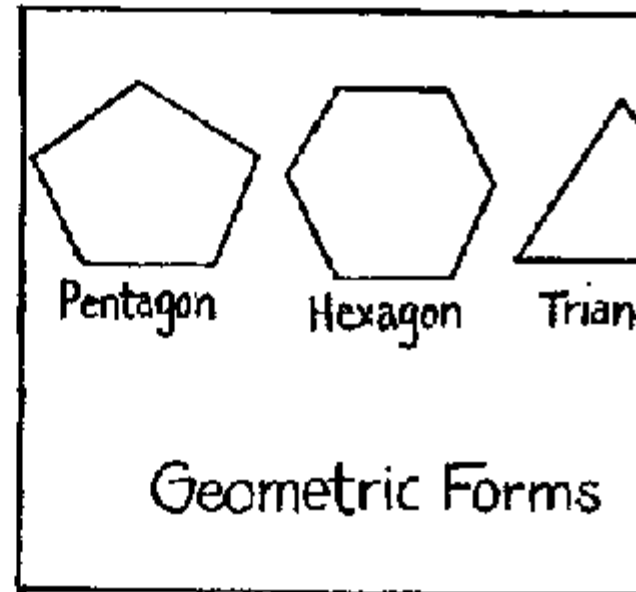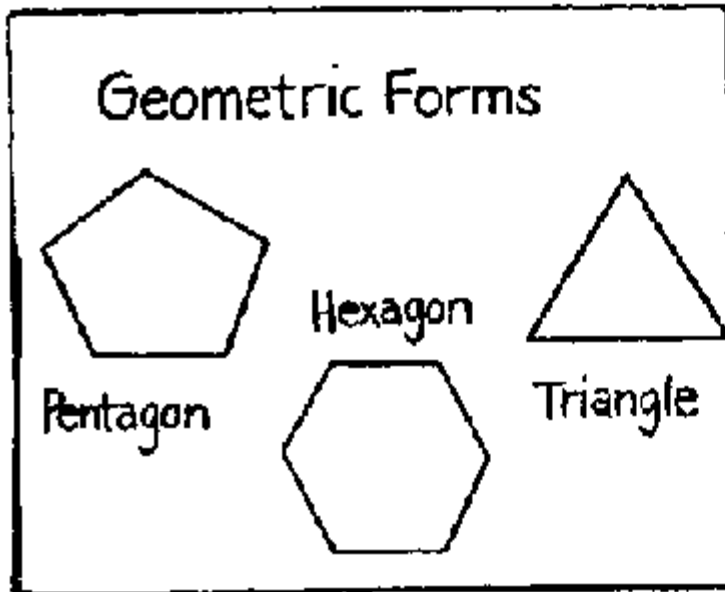a) does the picture fill the space?

Picture

b) is there a white margin around the outside of the picture?

Picture

c) if words are necessary, is it clear what words go with what pictures?

Picture

Geometric Forms

Pentagon Hexagon Triangle

Pentagon Hexagon Trian[gle]

Geometric Forms

5. Does each picture direct the viewer's attention to important information? Examples of ways to do this include:
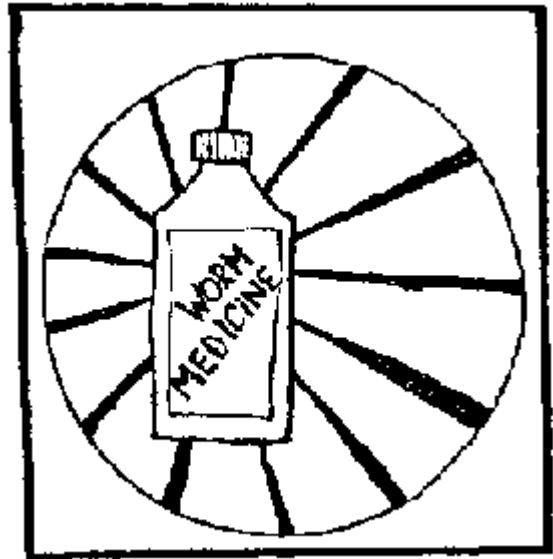
a) use of contrast to emphasize important information

Picture

b) making the most important thing the center of attention

Picture

6. Is the picture interesting to the people for whom it is intended?

- are the figures and objects in the picture based on the experience of the viewers?
- does the design and style fit local ideas about what is attractive?
- is the topic considered important?

(Based on Wileman, "Pretesting and Revising Instructional Materials." pp. 26-36. and Teaching and Learning with Visual Aids. pp. 85-103.)

Handout 24D: Using pictures to communicate effectively

DEVELOPMENT Of VISUAL MESSAGES REQUIRES SKILL

• The design and testing of nonverbal materials are more complicated and require much more time than the development of comparable verbal materials. Simple does not mean easy.

KEEP PICTURES SIMPLE

• Keep pictures as simple as possible. It is better to show a family planning clinic set against a plain background than against a city street. A crowded street will only detract from the message being conveyed.

• Though excessive, unnecessary detail interferes with understanding the message, the comprehension may also be reduced by deletion of all detail.

• Each picture and each page should have a single, sharp meaning. Putting multiple messages on one page will be confusing.

• A single page of a booklet should not include too many objects. It is better to have many drawings with one or two objects in them than to try to put many things in one drawing.

• Comprehension of the picture is higher when a person's whole body, rather than just some part of it, is portrayed.

THE MORE REALISTIC, THE BETTER

• For maximum comprehension, pictorial symbols should be as realistic as possible.

• Pictures of objects, people, and actions should look like the objects, people and actions in the specific area where the pictures will be used. Such things as different styles of dress easily lead villagers to assume that a picture does not refer to their own village or their own life.

• Material produced for national distribution may not be equally appropriate for all regions of the country, since there are usually variations in styles and customs from one part of the country to another.

PICTURES WILL BE "READ" LITERALLY

• Remember that villagers will be likely to interpret your drawings very literally. For example, if you draw something larger than it is in real life (such as drawing a fly six inches high) people may assume you really mean it to be an impossibly enormous fly, or they may think it is a strange kind of bird.

COLOR

• If the material being prepared will use more than one color ink, the color choices should be pretested in the same way the illustrations are tested. Keep in mind that certain colors have different meanings in different societies. Choose colors whose meaning in the culture corresponds to the ideas you wish to convey. Using color will also add to the production cost. Tests have shown that color does not, by itself, improve comprehension.

PEOPLE MAY NOT FOLLOW INTENDED SEQUENCE

• People who have not learned to read or write do not necessarily look at pictures in the order intended. It often proves helpful, as messages are befog tested, to ask several groups of people to arrange the individual messages into a sequence that seems most logical to them.

• If a poster, wallchart, packet instruction or booklet consists of a series of pictures, numbering the pictures ma, indicate to the villagers the order in which the pictures should be "read." However, the Honduran tests of the visual instructions for sexing oral rehydration salts showed that this technique does not always work. The placing of the numbers inside the box with the drawings led some mothers to assume that the numbers referred to the number of packets to mix, rather than the sequence of instructions to follow

PICTURES ALONE ARE NOT ENOUGH

• Do not expect villagers to learn a lot from the drawings alone. Use drawings to capture the villagers' attention, to reinforce what you say, and to give them an image to remember, but always give a clear and full oral explanation of your subject in addition to showing the drawings.

• Rural people need to be told explicitly that "pictures will show you how to mix the salts", or to "look at the pictures and follow the directions."

• People helping villagers to understand the message of pictures and posters should explain the meaning of conventional signs and symbols used by the artist. It is likely that if this is consistently done over a period in any given village, the villagers will learn to "read" the messages the pictures are trying to convey. Longitudinal tests in Honduras showed that rural women did not easily forget a symbol once learned.

• Not all kinds of technical information can be transferred primarily through illustrations. Pictures can probably be used to teach someone how to change a tractor tire, but it is doubtful they can be used to teach a person to drive that tractor.

THE AUDIENCE DECIDES WHAT PICTURES WORK BEST

• The intended audiences should have the final say about the content, illustrations and sequences that are used. Administrators and others indirectly connected with the project usually will have an abundance of suggestions for revisions, or state that they do not understand the message. But, the materials were not designed for this group!

(From: Population Communication Services. "Print Materials for Non-Readers.")

Handout 24E: Using visual aids
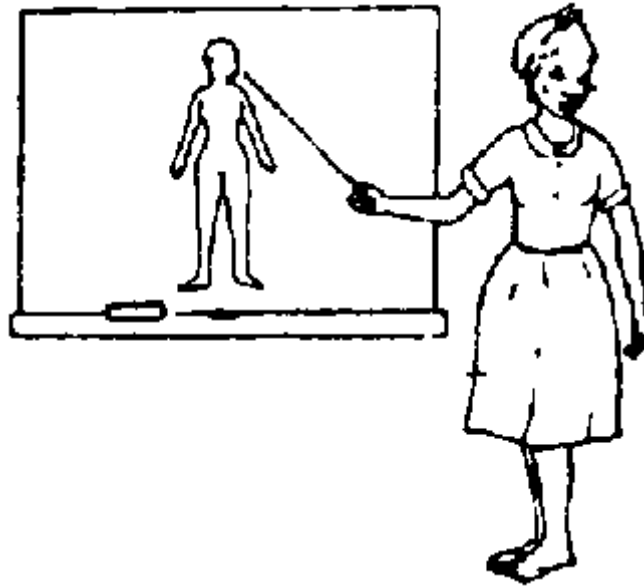
Make sure everyone can see the visual aid.

- is it large enough for the whole group to see?
- are you standing in front of the visual aid?
- is anything blocking the view of anyone?

Picture
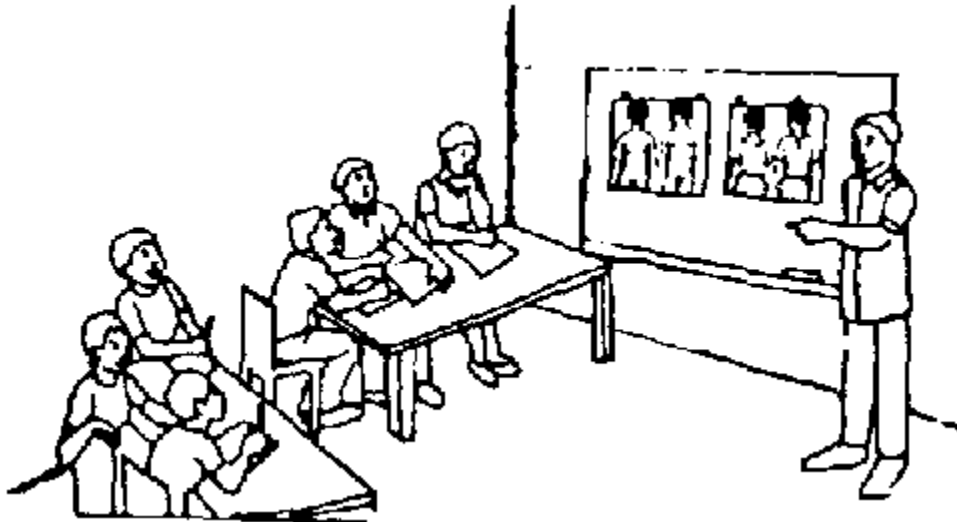

Point to parts of the visual aid as you talk about them.

Picture

Hold the visual aid still or tape it to the wall. Moving it around can confuse or distract the people looking at it.

Picture

Show the visual aid while you are talking about the topic it illustrates.

- show it long enough for everyone to look at it.
- put it aside when you finish talking about the topic.

Picture

Explain any pictures or symbols or words that may be unfamiliar. This is very important with people who are not used to learning from pictures.
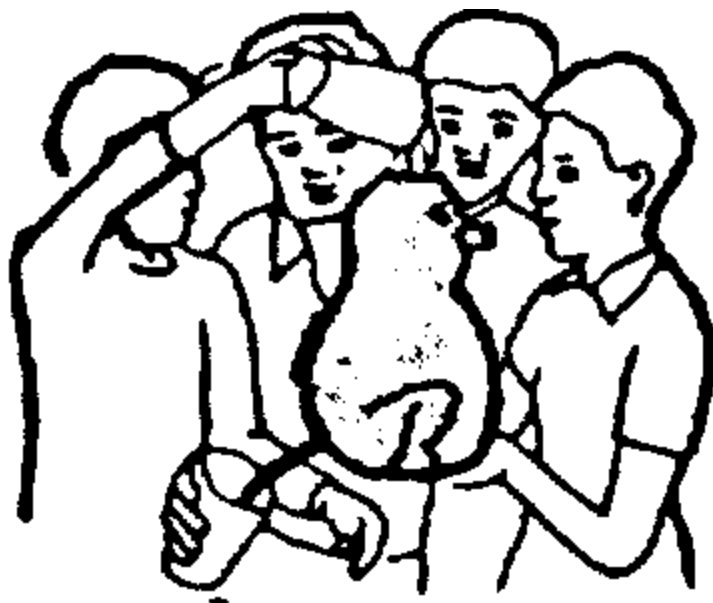
Picture

Encourage your learners to handle and experiment with your visual aids and to make their own.

- pass them around during discussion.
- put them on display.
- make up activities in which the learners make and use visual aids.

Picture

(From: <u>Teaching and Learning With Visual Aids</u>. pp. 346-348.)

Trainer Attachment 24A: Why use visual aids?

TITLE: WHY USE VISUAL AIDS?

TIME: 20 minutes

OBJECTIVE:

Learners will recognize and state that visual aids are sometimes necessary for a clear understanding of new information.

MATERIALS NEEDED:

Pencils and paper for each participant.

Picture of the aardvark (or other animal or object to be described in activity). If you have more than 1520 participants, you will need a larger drawing. See Unit 2 for ways to enlarge pictures.

INSTRUCTIONS:

1. Be sure everyone has pencil and paper.

2. Explain that this activity is like a game that will lead to a discussion of teaching. Explain that you will be asking people to draw an animal based on a description from an encyclopedia which you will read to them 2 times. Emphasize that it doesn't matter how well they draw. Ask them to think about their reactions to the activity as they do it.

3. Read the description slowly and clearly. Do not worry if people express confusion. Ask your learners to draw whatever kind of picture the words suggest to them.

If learners want to hear the description again, read it to them again.

Tell them they have 5 minutes to complete the drawing. Let them work on the drawing for 5 minutes.

4. Ask learners how they feel about doing this activity. List some of their responses on the chalkboard to refer to later. Some of the responses you can expect are: "not clear," "not enough information," "I got lost after the first sentence."

5. Ask a few people to guess what kind of animal they have been drawing. Show participants the picture of the aardvark. Reread the description, pointing to each part of the picture as it is described.

6. Ask people to summarize what they have learned from this activity. They should state some version of the objective for this activity. If they have difficulty, give them a hint such as: "What has this shown you about learning new information with words and pictures?"

7. Ask learners to imagine they are nursing students and an instructor has just given them a verbal description of how an IUD is inserted, but has not shown them what the IUD or the inserter looks like! Point to the list of frustrations expressed while they tried to draw the animal. Ask them how they can apply what they have learned in this activity to their own work.

8. Summarize the activity by stating the objective ("You have stated that visual aids . . . ."). Repeat their list of frustrations noting the similarity with frustrations often stated by students.

POSSIBLE ADAPTATIONS:

1. The aardvark seems to work well. But you may want to use another example that will be more interesting to your learners. Choose any description of an animal or object that is confusing when described only with words.

2. If time allows, in instruction 5 above, you may want to have learners post their pictures after they guess what animal it is, but before you show the aardvark picture.

3. This activity can be combined with part of activity 3, THINGS WE HAVE LEARNED THROUGH PICTURES). After instruction 7 above, have the large group do steps 1-3 of Activity 3.

"The body is stout, with arched back; the limbs are short and stout, armed with strong, blunt claws; the ears long; the tail thick at the base and tapering gradually. The elongated head is set on a short, thick neck, and at the end of the snout is a disc in which the nostrils open. The mouth is small and tubular, furnished with a very long, thin tongue.

(From: Teaching and Learning with Visual Aids. pp.45-48.)

Trainer Attachment 24B: Tanzania - Villagers teaching us to teach them

Handing the camera over to non-literate village women to photograph familiar village activities yielded interesting discoveries about the way rural people see things, and how they learn.

By JOHN SICELOFF.

John Siceloff has worked in communications and development in Afghanistan, Peru and Tanzania, and is working on a book on the subject

The photographer squints through the viewfinder, then motions to the woman holding the baby to dunk it in the bath. The baby shrieks. "Click!"

The scene might evoke familiar memories. But here in this Tanzanian village, there is a difference: the subject is a village woman, and so is the photographer. But even more novel than the scene was the assignment the photographer had undertaken: she was taking pictures of a familiar village activity of her own choosing in order to use the result to teach others how that activity could most easily and economically be performed.

The use of graphic illustrations in communicating ideas about development has been extensively researched. The central purpose of much of this research has been to understand how non-literate rural people respond to visual aids such as drawings, photographs, slide sets, and posters. My goal was similarly to enhance that understanding but to do so in a manner that gave the people themselves virtual control of the material that had to be produced and assessed. So I decided to hand over the tool-the camera-to the villagers so that they could film their own activity. Their choice of perspective, "editing," and the subject "frame" would, I felt, yield significant indications of the way they perceived things visually.

Her own picture series

These pictures were taken by Kabula Njoba, a woman living in Ngeme village, Tanzania. Mrs. Njoba has never been to school, and has seen movies twice. Her subject was: "Farming," and her conception is broad, encompassing not only cultivation but eating and celebration. Each picture has been elaborately planned to show several related activities. Picture No. 5: "They were cooking," shows a woman bringing firewood, another holding a water-jug, another stirring, and another with a pot over the fire.

Over a two-year period in Peru and then Tanzania, two hundred delegated villagers co operated enthusiastically in the exercise. Each learned how to use an instant picture camera, then took and explained their picture series on how to hoc, to harvest, to cook, to feed the baby, and many other everyday activities. And it became apparent very quickly how invaluable a tool in village education pictures can be. Again and again I saw photographs spark the interest of villagers and provide them with detailed images of both familiar and unfamiliar things and places.

In the process I learnt a great deal about the effective use of picture series amongst villagers, especially women, and as well about why villagers were sometimes left confused about the overall story or message of the pictures and films made by "experts." Particularly confusing have been "how-to" films designed to communicate new skills in essential activities. So putting the camera in the hands of villagers was a move back to the basics, to find out how villagers related to their own productive work on the visual plane.

The picture series taken by the villagers could be roughly grouped into two categories. In the first group, the emphasis was on the action; each step was shown in a separate picture. The photographers in this grouping were mostly men. And they were men who lived in villages near major roads, or in shantytowns near urban centres.

Pictures taken by women, and by men in more isolated villages, were very different. Their pictures emphasized people doing the work, each step of how the work was performed. Large blocks of activity were often shown in a single picture.

These photographers conceived of a "how-to" picture series in a very broad sense. They showed people travelling to work, working, resting, and often drinking. The emphasis was on "how we work," not a step-by-step presentation of an activity. It was a style of communicating with pictures that was descriptive, personal and "whole" reflecting how villagers taught and learned from one another in their daily lives.

"Why-to" and not just "How-to"

This provided insight into what kind of picture series would be needed to introduce new ideas into village areas. For men in the first grouping, conventional "how-to" pictures, with each step shown in a separate picture, were likely to work. But for nearly all village women, and for men in isolated villages, picture series would need to follow certain guidelines:

- The narration, or written description, that accompanied the pictures would be very important. Pictures in themselves would convey lime without highlighting what was seen in the image and why it was important.

- A picture series could not be expected to teach villagers how to perform a specific activity. This could only be done by someone on the spot. "How-to" picture series were unlikely to work.

- Picture series could be very successful in encouraging villagers to adopt new ideas, ranging from improved cropping techniques to better diets for babies. Instead of a "how-to" series, these would be "why-to" pictures.

- A "why-to" picture series would need to be presented in a descriptive, person-to-person. style.

- The picture series would need to present experience, not merely information. This would mean showing something which actually happened in a village and worked.

I struggled with different ways to carry out these guidelines. I found it was difficult to script a picture series that would speak on a person-to-person basis to villagers. The problem was the enormous gap between the actual situation of villagers and my own

situation-or indeed that of any highly-trained communications worker living in an urban centre.

Eventually, I found the best way was to involve villagers directly in the planning and production of picture series.

My method was to choose a village where a development idea had been successfully applied, and then to select a group of villagers and ask them to tell with pictures why they had adopted the idea. They planned the story-line and composed the pictures; I shot them. The narration was written jointly and recorded by the villagers. The final product became a testimonial from one village group to other village groups on why they adopted a particular idea, ranging from ox-ploughs to sanitary latrines.

The final step was to create an effective method of using picture series in villages. I settled on a slide series with a recorded narration as a format. I then designed a means of distribution which depended on the villagers themselves. This was an audiovisual kit which can be carried on the back of a bicycle and includes a 12-volt projector and a cassette recorder, both powered by generators fined to the bicycle. It requires no petrol and no batteries. The advantage of this small kit is that it can be left in the village for weeks at a time. A village worker, paid on a part-time basis, can show the picture and answer questions. Many small showings can be scheduled at times which are convenient for the people in the village.

Reporting on concrete results

As a result of producing these picture series with villagers, I found that I also developed a new attitude toward the role of communication workers in development. I began to see specialists in development communications primarily as journalists, not producers. The first requirement of a successful picture series, I found, was a successful village project on which to base it.

This would mean, for instance, that to educate village women about a balanced diet, the first step would be to find a village where this has actually happened. This might be a village where a co-operative had started to raise chickens and a group of women had planted beans. Should a setback have occurred, such as the treasurer running off with the money, this would also be portrayed in the picture series, along with the remedial action taken. The essential characteristic of the village selected for the series would be that the results of the project were visible. Picture series for villagers arc effective only if they are based on actual occurrences, not merely on advocacy or promotion.

What this means is that communications workers must be effective journalists if they are to be effective educators. Before snapping the first picture or drawing the first storyboard, they must be able to see how a project is operating in the field. Only then will they be able to make audio-visual or other aids which present concrete, realistic options likely to motivate villagers to reassess their own practices in favour of more productive alternatives.

(From: UNICEF News, Issue 14 Number 4. pp. 18-19)

Trainer Attachment 24C: Examples of teaching situations

CASE 1: ENCOURAGING MOTHERS TO BRING THEIR CHILDREN TO THE CLINIC FOR IMMUNIZATIONS

The health worker in a small rural clinic is concerned because many babies in the area are dying from diseases that could be prevented by immunizations. She is concerned because mothers in the area do not bring their babies to the clinic for these immunizations. Her assistant, who lives in the village, told her that the women fear that the immunizations will poison their babies. They have heard rumors of babies dying after such immunizations and they prefer to use their own herbal remedies for illnesses. The health worker observes that the women gather every week under a tree in the village to pound their grain, talk, and sing. The women are busy with many tasks and only stay under the tree about one hour or less.

What can she do to encourage the women to bring their babies to the clinic for immunizations? She has some paper and paint that she brought from the regional capital. The village has no electricity.

The following are possible answers to the 6 teaching questions for this case study.

1. WHO: women with babies

2. WHAT: bring their babies to the clinic for immunizations

3. WHERE and HOW LONG: under the village tree where women gather to pound their grain; 15 minutes.

4. TEACHING METHODS: songs, stories, or a talk about immunizations for babies

5. VISUAL AIDS:

a. existing materials: paper and paint, the mothers' children who are sick with a childhood disease

b. materials she can make:

(1) pictures to illustrate her songs or stories about immunizations

(2) drawing of children showing symptoms of each of the diseases that could be prevented by immunizations

6. EFFECTIVENESS:

a. observe whether the women pay attention to her presentation and ask questions or offer their own stories about diseases or immunizations

b. count the number of women who bring babies to the clinic for immunizations before and after the session

CASE 2: TEACHING A COMMUNITY HOW TO BUILD A LATRINE

The local health committee has asked the health worker in the regional clinic to visit their community and teach local volunteers how to build a latrine. The village is in a remote area accessible only by foot, donkey, or boat. Most of the villagers have never seen a latrine. The newly appointed health committee heard from a visiting health worker that many of the stomach pains and diarrhea problems in the community could be reduced by building and using latrines. Wood available is locally. The villagers have digging tools. In 1 day a health worker can usually demonstrate how to build a latrine.

What is the best way for the health worker to teach the volunteers how to build a strong effective latrine?

The following are possible answers to the 6 teaching questions for this case study.

1. WHO: village volunteers

2. WHAT: build a latrine in an acceptable location

3. WHERE and HOW LONG: in the community; 1 day demonstration activity.

4. TEACHING METHODS:

a. lecture/demonstration (lecture about materials needed to build latrines, where to build them, and the steps in building a latrine)

b. help the villagers build a latrine in an acceptable location

5. VISUAL AIDS:

a. existing materials: wood, digging and carpentry tools, paper, crayons

b. materials to make:

(1) drawings of people building a latrine, showing the different steps in locating and building the latrine

(2) wooden model of the best type of latrine for this village

6. EFFECTIVENESS:

a. during construction:

1. to see how effective your explanation was, count the number and kind of requests villagers make for re-explanation of steps in building a latrine

2. count the number and kind of mistakes made during the construction

b. after building the first latrine, return to the village at regular intervals to see if new latrines are being built; also check to see if they are building them correctly and placing them in acceptable locations.

CASE #3: HOW TO INFORM MOTHERS OF YOUNG INFANTS ABOUT NUTRITION

The health worker is in a small clinic in a poor area at the edge of a large urban center. She is concerned about the large number of cases of infant malnutrition that she sees in her community. She talks with some of the mothers. They have little money for food. They feed their babies bread and macaroni with broth from the stews that the adults eat. Most of the mothers cannot read. They are not aware of the dried milk and soybean meal distributed free in a nearby clinic. The mothers who have heard of this free food have not bothered to go to the clinic to get it. They have never prepared such food. They do not know how to cook it. Some think that it is animal food not fit for humans.

The health worker has paper and drawing materials. How can she inform these mothers about nutrition to help them improve the health of their children?

The following are possible answers to the 6 teaching questions for this case study.

1. WHO: mothers in a poor community at the edge of a large urban center

2 WHAT: improve their babies' nutrition through use of dried milk and soybean meal

3. WHERE and HOW LONG: in the community; in the clinic; 15 minute demonstrations.

4. TEACHING METHODS: community displays or exhibits; food preparation and tasting demonstrations at the clinic.

5. VISUAL AIDS:

a. existing materials: paper and drawing materials, dried milk and soybean meal samples

b. materials to make:

(1) a display with drawings to illustrate that a) free food is distributed at the clinic, b) cooking demonstrations are given at the clinic, and c) humans can eat the dried milk and soybean meal cooked in the clinic demonstration.

(2) a cooking fire, foods made at the clinic demonstrations

6. EFFECTIVENESS:

a. count the number of mothers who come to the clinic for the food demonstrations

b. count the number of mothers who come to the clinic for free food

(From: Teaching and Learning With Visual Aids. pp. 111-113.)

Session 25: Health education through mass media

Handout 25A: Promoting ORT: integrating mass media print and visual aids
Handout 25B: Development campaigns in rural Tanzania
Handout 25C: The promotion of breastfeeding and proper weaning practices in the Ivory Coast
Handout 25D: Guidelines for readings and presentations

TOTAL TIME: 2 hours, 30 minutes

OVERVIEW

Although Peace Corps Volunteers may not be heavily involved in mass media programming, it is important that they understand the potential role of mass media in health education. In Session 19 (Selecting Health Education Strategies), they discussed mass media as a communication strategy. Here they examine several case examples of how mass media has been successfully used in health programs and more specifically how it can complement learning activities designed for individuals and small groups. At the end of this session they practice visualizing and writing primary health care messages for a variety of media (i.e., radio, magazines, posters etc.).

OBJECTIVES

• To identify ways that mass media can be used to stimulate interest in a program and/or reinforce prior learning. (Step 1)

• To identify and compare successful uses of mass media in African health projects. (Step 2)

• To write a health message using guidelines for clear writing and communicate this message via pictures or other forms of media. (Steps 3, 4)

RESOURCES

- Visual Aids Resource Package (Peace Corps)
- "Communications for Social Change" (UNICEF)

Handouts:

- 25A Promoting ORT
- 25B Development Campaigns in Rural Tanzania
- 25C Promotion of Breastfeeding and Proper Weaning in the Ivory Coast
- 25D Guidelines for Readings and Presentations

Trainer Attachments:

- 25A Communications A Potent Force for Change
- 25B Making Print Materials Easier to Read

- 25C Example of Planning for a Picture Series.
- 25D Radio Instructional Programs: Some Practical Guidelines for Scriptwriters and Planners.
- 25E Concept Development (PSA's)
- 25F Developing Print Materials for Nonliterates.
- 25G The Process of Writing Materials
- 25H Radio Program Planning Guide
- 43C Educating the Public About Oral Rehydration Therapy (From Session 43)

MATERIALS

Newsprint, markers, examples of health promotional materials

PROCEDURE

Trainer Note

Prior to this session ask participants to locate and bring examples of mass media materials from the local area and regional or national information offices (such as -ads for foods, breastfeeding, immunizations etc.). Find out about mass media projects in the host country which have been designed for health. If possible borrow the materials that have been developed. If radio is used, you or one of the participants should tape a session. Set up a display of these materials around the training room so that participants may examine these examples in Step 1.

The day before this session, divide participants into three groups. Give each group one of the handouts on mass media projects in Africa (Handouts 25A through 25C). Ask each group to read the article using the guidelines from Handout 25D (Guidelines for Readings and Presentations), and to prepare a summary of the article for the rest of the group. Emphasize that these projects combine mass media and individualized educational techniques. You may want to substitute descriptions of local projects for one of the readings.

Step 1 (30 min)
Defining the role of Mass Media in Education

Have the group spend 15 minutes examining the mass media display that you have prepared with the collected materials. Ask participants to individually note what messages if any these items seem to be trying to convey.

Have them focus their attention on:

- Who is the message aimed at? (i.e., who is the target audience).

- What is the message trying to do? (e.g., inform the public about something, promote a new product, change attitudes, or behaviors, reinforce existing knowledge).

- Is it appropriately adapted to reflect the characteristics and knowledge, attitudes and practice of the local culture? (i.e., is the language and imagery appropriate?).

- Is the message technically accurate?

- Does it attract your attention and interest?

- Does it have "mass" appeal?

After 15 minutes have the group take their seats and ask for volunteers to share their impressions of these materials with everyone. As they discuss the materials, ask them to refer to examples around the roam that best illustrate their comments. Record the key issues from their discussion on newsprint.

Trainer Note

During this discussion you may want to mention some of the ideas discussed in Trainer Attachment 25A Communication: A Potent Force For Change).

Step 2 Comparing Mass Media Efforts used in Africa
(30 min)

Ask each group to give a five minute presentation summarizing the article that they read the evening before. Be sure they address the questions in Handout 25D (Guidelines for Readings and Presentations) which they used to prepare their summaries. Follow the presentations with a large group discussion of these questions:

- What kind of health education strategy was used in each project? (community organization, training, communication).

- Were communities involved? How?

- What kinds of materials and techniques were used?

- What ideas from these projects could you use in your work?

- How can individualized and mass education techniques be used to complement and reinforce each other?

After the presentation ask participants to refer once again to the examples of mass media displayed around the room and consider the main points that have come out of their discussion thus far. Ask the group to identify the primary ways they think media can be used in health education projects. Also ask them to state several design criteria that should be used when developing communication strategies.

Trainer Note

The materials that are reviewed and discussed in this step should reflect some of the ways that WHO views the role of media in education.

Specifically media can:

- Help strengthen the political will by appealing to policy makers.

- Raise general health consciousness and clarify options concerning actions that have a strong bearing on health levels.

- Inform decision makers and the public about the latest developments and limitations in health sciences, and publicize relevant experiences for replication.

- Help deliver technical messages.

- Foster community involvement by reflecting public opinion, encouraging dialogue and facilitating feedback from the community.

Include these points during your discussion of their readings.

If there is an ongoing mass media campaign in the host country, encourage participants to think about ways that they could contribute to the national or regional campaigns in the host country, and ways they can benefit from the posters, radio programs and other messages and materials generated by the campaign.

Also encourage them to think of creative ways that they can use some of the ideas and techniques from large health campaigns to improve their health education activities at the community level.

Step 3 Preparing Promotional Messages
(60 min)

Ask the participants to form three small groups based on their interest in designing health messages for use in radio, posters, and television or booklets. Ask them to develop their message to address one of the strategies and related activities they developed in Sessions 19 and 20.

Distribute the material from Trainer Attachments 25B-25H which give the appropriate guidelines for each of the medium being covered by the three different groups.

Tell them they have one hour to begin developing their messages. Inform them that they will present and pretest their materials in the next session.

Trainer Note

During this step remind the participants to incorporate the information they learned in Session 23 (Adult Learning and Nonformal Education Techniques) as well as what they know about the host culture. Tell them that they can also use the visual aids developed in Session 24 (Selecting and Using Visual Aids) if they wish.

As an alternative to this exercise you might invite some guest speakers involved in health media activities to discuss their projects and present the guidelines they follow to develop effective messages.

Step 4 Summary
(20 min)

Close the session by asking the participants to name several basic principals to keep in mind when using mass media in a health education project.

Trainer Note

Trainer Attachment 43C (Educating the Public about Oral Rehydration) provides a good summary of the experiences gained in using mass media to practice ORT.

Handout 25A: Promoting ORT: integrating mass media print and visual aids

Delivering the goods

Many communities are still unaware of the benefits of ORT. The Ministries of Health in Honduras and The Gambia have taken up the challenge and are promoting ORT through an integrated educational campaign. William Smith reports on this exciting initiative.

Since 1981, a widespread educational programme - the *Mass Media and Health Practices Project** - has been underway in Honduras and The Gambia, showing thousands of villagers how to recognize the signs of dehydration and to prepare and give oral rehydration therapy (ORT) correctly at home. These two countries were chosen because of their contrasting cultures and environments, to make it easier for techniques developed to be used in other countries later on. By combining specially designed radio programmers, simple graphic materials and targeted advice for health workers, the governments of both countries are using mass media to improve the delivery of ORT services showing that semi-literate communities can be taught to mix and give ORT safely.

* The project is sponsored by the Office of Education and Office of Health, Bureau for Science and Technology, US Agency for International Development.

Unique approach

In both Honduras and The Gambia, village attitudes, beliefs and practices guided the project design. Mixing trials. home observations focus groups and individual interviewing helped select the key audiences and define the most effective educational messages. Each country has developed its own unique approach to ORT delivery and village education. In Honduras, the government is providing locally produced oral rehydration salts called Litrosol for both home and clinical use.

In The Gambia. packets are available at health centres but a simple sugar and salt solution is also promoted (or home use because it is too costly to make the packets available in every home. The Gambian medical and health departments developed a standard formula for this home administered solution, using local soft drink (Julpearl) bottle and cap for measurement). One litre of fluid is made up from three *Julpearl* bottles

of water, eight caps of sugar and one cap of salt. The correct way of preparing and giving the solution was broadcast to mothers on Radio Gambia (the national radio station). Printed material was distributed to reinforce the message and health workers talked with mothers to make sure they had understood.

Radio

Radio is an important aspect of the *Mass Media Project* in both countries because it reaches more people, more quickly and more often than any other medium being used. It has four particular purposes

1. Convincing rum people that diarrhoea is a serious problem.
2. Teaching and reminding them how to mix the oral rehydration solution.
3. Answering common questions identified during village visits.
4. Leading people to sources of additional help.

In both Honduras and The Gambia, many people own radios so these can be used effectively for public education. *The Mass Media Project's* radio broadcasts in The Gambia are chatty and informal conforming with popular programming style there. The broadcasts answer health questions quickly and accurately and open a dialogue with mother. The Gambian government has provided free time for hundreds of diarrhoea-related messages on Radio Gambia.

In Honduras, the project took advantage of a large network of commercial radio stations. The radio spots were short and catchy and intended to compete with high quality commercial advertisements. The featured spot, a 60 second song, became a nationally popular tune. Follow-up announcements emphasized child care during diarrhoea encouraged administration of Litrosol and stressed the importance of continuing breastfeeding during diarrhoea.

Graphics

The graphics used by the *Mass Media Project* to illustrate the health messages are simple and clear. The main materials interact directly with the radio messages and health workers to teach the important skills of mixing and giving oral rehydration solution at village level. This is particularly important in The Gambia because rural women are unfamiliar with printed material of any kind and need help with interpreting pictures. It was necessary, for example, to develop an appropriate visual way of showing the difference between sugar and salt and illustrating the Julpearl bottle and cap needed for comet measurement. A colourful 8" x 11" poster was developed which shows the bottle and cap being used to mix the rehydration solution. The "mixing pictures" of sugar, salt, and water are colour coded and linked to explanations given over the radio,

In Honduras, early field research indicated that mothers associated child care with loving images. This attitude was shown visually by a large red bears surrounding a picture of a breastfeeding women. The bears was also later associated with Litrosol and a young family added to the picture to reinforce the role of the husband in giving ORT.

Integration of communication techniques

The project's radio programmed strengthened the visual symbols in both countries through special jingles and romantic songs about motherhood, as well as providing basic information.

In Honduras, for example, the programme told mothers where to get Litrosol, how to mix it in the proper volume of water and how to measure it in containers easily found everywhere. Radio was also used to identify a special network of health workers and village contacts - *red heart ladies* - who had been trained to mix Litrosol. Some 1,200 *red heart ladies* new a red heart flag above their homes to attract village women to this local resource. The integration of the different methods of communication is a key feature of the Mass Media Project.

Happy baby lottery

To encourage more Gambian mothers to participate in the project and to maximize the integration of radio, printed material and input by health workers, a national contest was launched to popularize the home administered rehydration solution. Known as the *Happy baby lottery* the contest helped to begin the distribution of some 200,000 "mixing pictures" to mothers throughout the country. Radio Gambia broadcast repeated programmes to rural mothers on how to use the posters as entry tickets for the contest. The programmes also taught mothers how to interpret the mixing instruction on the poster. Health workers were trained to use the posters to teach mothers how to mix the formula as well as giving UNICEF ORS packets to severely dehydrated children in rural clinics.

Village contests

Distribution of the posters was followed by a month of 72 village contests. Every week, the radio announced the names of 18 villages to be visited by a judge wearing a 'happy baby' t-shirt. To enter the contest, mothers went to the nearest village displaying a happy baby flag and, if they mixed the solution correctly, won a prize - either a plastic litre cup or a bar of locally made soap. These prizes were chosen because they were appealing, locally available, inexpensive and consistent with project pals. The cup, for example, is a common container for drinking water and a convenient one litre measure for the sugar and salt solution.

The response to the lottery was enthusiastic. More than 11,000 mothers attended the village contests. Over 6,500 entered the mixing competition, while hundreds more watched, listened and learned the new advice on treating diarrhea. Winning mothers' names were included in a later draw for 15 radio-cassette players. A single community prize of rice and sugar was given each week for the village turning out the most mothers for the contest. Radio was used regularly to publicize the winners and to reinforce the mixing formula. The lottery ended when the Gambian president's wife drew and announced the names of the grand prize winners in a special radio broadcast.

The lottery is only one part of the Gambian government's use of mass media to fight infant diarrhoea. Special happy baby flag ladies, like those in Honduras, have been trained to give mixing advice to visage women. Regular radio broadcasts include

traditional songs, drama and popular personalities to explain the dangers of dehydration and to stress the importance of breastfeeding during diarrhoea.

Conclusion

There has been an encouraging acceptance of ORT in both countries. During the first 12 months of the project in Honduras, hall of the mothers reached were using Litrosol. In The Gambia, after eight months of the campaign, half of the mothers, reported using the recommended sugar and salt solution to treat diarrhoea. An extensive three year evaluation is continuing in both countries.

Three elements have been critical to the success of the project:

1. Education and an effective delivery system An effective delivery system for the UNICEF packets and instructions on the sugar/salt mixing were combined with practical and widespread education on how to use the new remedy.

2. Flexibility Regular information from the field was used to make changes in methods and materials so that mothers questions could be quickly answered.

3. Rural beliefs and traditions formed the basis for the educational campaign.

Resources are available to provide modest assistance to other countries interested in developing a mass media programme of this sort. Much teas yet to be learned, but a systematic use of mass media integrating radio, print and dialogue between health workers and mothers can significantly improve the outreach of many health education programmer.

Further information on the project is available from Dr William Smith, Vicepresident, Academy for Educational Development, 1414 Twenty-second Street, NW, Washington DC 20037, USA.

(From: Diarrhea Dialogue. Issue 14, August 1983)

Handout 25B: Development campaigns in rural Tanzania

Budd L. Hall

In 1975, over three million people in rural Tanzania took part, though discussion and action groups, In a campaign on food production and nutrition called *Chakula ni Uhai*, (Food is Life). This campaign, made use of weekly radio broadcasts, printed materials and over 100,000 trained study group leaders. Early campaigns, on a small scale, were conducted on themes such as the popularization of the second five-year development plan, the. 1970 presidential and parliamentary elections and the celebration of ten years of independence The idea of development campaigns has further spread to Botswana, where a successful campaign on the first national development plan was completed in 1973.

The development campaign as it exists in Tanzania and, to some extent, Botswana, is the manifestation of several different streams of activity. The illustration which follows perhaps shows this diverse parentage most clearly, regarding the most recently completed two-million-member "Man is Health" campaign.

The "Man is Health" development campaign fits within the historical context of many development efforts and combined aspects of various antecedents in a national short-term (1 2-week) intensive campaign. It was an outgrowth of increased emphasis by the Ministry of Health on preventive or community medicine, an expansion of adult education experimentation with radio listening groups, part of the political party's (TANU) concern with increased political consciousness and awareness of the politics of health, and fell within national policies for bringing about a socialist rural transformation (Ujamaa).

The best way to Illustrate how this kind of development campaign works is through a look at the results of a recently-completed campaign.

AIMS AND ORGANIZATION OF THE "MAN IS HEALTH" CAMPAIGN

The campaign had three objectives:

1. to increase participants' awareness of, and to encourage group actions on, measures which groups and individuals can take to make their lives healthier;

2. to provide information about the symptoms and prevention of specific diseases; and

3. for those who had participated in the national literacy campaign, to encourage the maintenance of newly-acquired reading skills by providing suitable follow-up materials

Graph
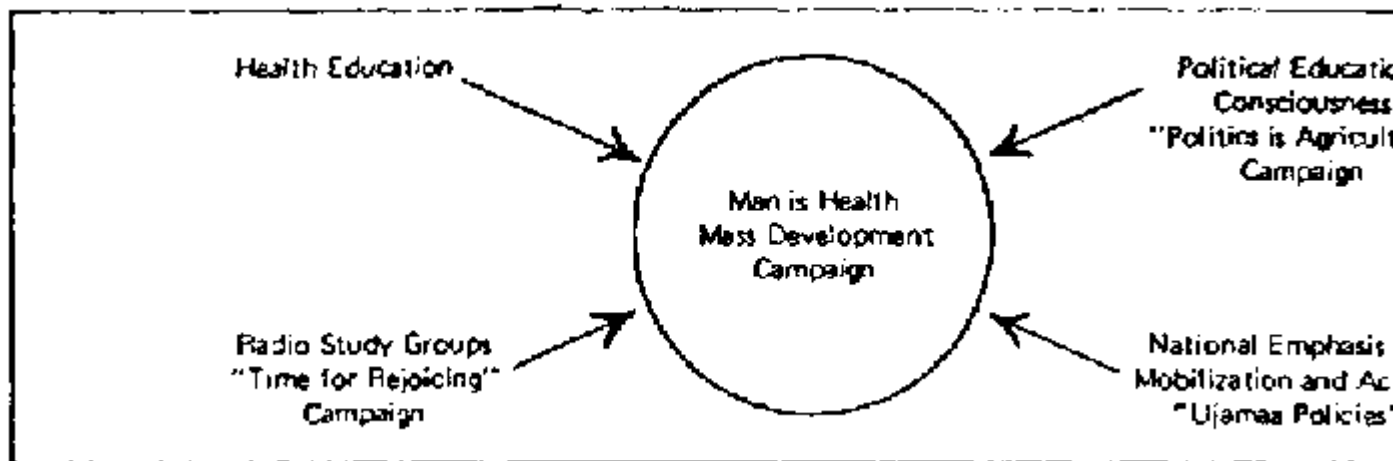
Two elements were fundamental to the fulfillment of these objectives. First, there were preexisting structures available to implement the plans. Second, the planning was not rushed and it was thoroughly systematic.

Tanzania has built a widespread adult education network under the administration of the Ministry of National Education. It is composed of nearly 2,000 national , regional,

district and divisional adult personnel are responsible to the thousands of adult education coordinators and supervisors. these personnel are responsible to the thousands of adult education centres which operate using primary schools and bases. They are paralleled by a network of health education officers. Both sets of personnel were largely responsible for the day-to-day operation of the campaign, from the training of group leaders to encouragement during the broadcasting. They were supplemented by the networks of TANU and the Rural Development Division.

The planning campaign began 18 months before the first radio broadcast went on the air and was carried out under guidance of a national coordinating committee which met as often as weekly during the more intense planning periods. The importance of this committee is that, from the beginning, as many agencies as were necessary to the success of the campaign were involved. A mass campaign at a rural level cannot carried out by the activities of only one sector or one agency. It requires the coordinated efforts of all agencies working in the rural areas. At village level in this campaign, the adult education personnel worked with the rural development extension officers, the local TANU officials and the health education personnel in organizing groups before the campaign and in giving the groups support, once the radio programmes were under way.

THE STAGED TRAINING SYSTEM

Experience from the earlier radio study group campaigns indicated that a trained study group leader was essential to successful group activity. One of the most important reasons for training group leaders is to convey the message that group leaders are not teachers. A leader does not tell the group what to do or how to do it. The group leader is given training to guide group studies, to understand that he is only "first among equals". He must be trained in tact: to encourage the withdrawn, subdue the over-dominant and generally stimulate full participation. It is equally important to provide suggestion to leaders on how to move from discussion to action in the groups.

Logistically, the Tanzanian scheme required 75,000 study group leaders to be trained in 3 1/2 months. This was done by means of staged training system whereby regional teams trained district terms who, in turn, trained the study group leaders at divisional level. There were 7 regional seminars for 200 participants (30 per seminar); 61 district level seminars for 1400 participants (25 per seminar); and 2000 divisional seminars for roughly 75,000 study group leaders (37 per seminar). All the seminars lasted from 2 to 3 days.

An important lesson from this experience at mass training is that it is possible to ensure that the central elements of the training message survive the diffusion process from the first through the last stages. That is, no vital element need be damaged by dilution. This is one of the most crucial aspects in the development of a mass campaign. In the Tanzanian case, the key elements of the training message were maintained by several devices: centrally-prepared handouts(duplicated locally); the use of prepared flip-over charts summarizing the most important points of training; prerecorded cassettes of simulates radio programmes for role-playing experience; and copies of the actual materials to be used in the campaign.

THE GROUPS IN ACTION

The pattern which was most often followed by groups during the campaign was as followed:

1. assemble during the gathering time - the radio plays music related to the campaign, political songs, poems and short announcements;

2. the group members listen to the 20 min. radio programme;

3. the group leader or someone in the group reads aloud the appropriate section of the text;

4. discussion begins first with the question of the relevance of the material presented to the actual circumstances of the group's members;

5. discussion takes place about various persons experience with the disease, alternative causes of the disease and possible ways of preventing it;

6. resolution are made and agreed upon by the group for specific actions which could be implemented in the village; and

7. during the ensuing week - before the next programme - the resolutions are carried out by the group members and, most likely, others in the village.

A major difference between this campaign and previous attempts was the importance placed on action following discussions. The types of activities which individual groups undertook varied according to the reality in various areas. In a survey of 213 groups, it was found that clearing vegetation from around the homes was carried out by 28% of the groups, digging, repairing or rebuilding latrines by 20%, destroying and cleaning the areas of stagnant water by 24% boiling water 12% and cleaning the area around water supplies 11%. In one district, (Dodoma) about 200,000 latrines were built during the campaign period. The result at the end of the campaign was that not a single house was without a latrine. This happened in an area where colonial officers had tried to enforce latrine construction nearly 50 years previously with dismal results and much rancor. In one division in Iringa, the people decided that to have a latrine for each home was not enough What, for example, could travelers use while waiting on the side of the road for buses? The solution was obviously more latrines. It was agreed accordingly, that one latrine would be built at each major bus stop in the area.

CHANGES IN HEALTH PRACTICES

Of particular importance to the campaign was the measurement of change in health practices. In a survey done of 8 villages Wore and after the campaign, a series of 11 observable health practices such as the presence of a latrine, the use of the latrine and absence of broken pots and pools of stagnant water, combined as a health practices index. Each household was surveyed and could score between 0 and 12, depending on the number of positive practices observed. Before the campaign, the mean health practices index for all houses in the 8 villages (2,084 houses) was 3.0 or 3 out of 11 observed positive health practices. After the campaign, the mean index was 4.8, a relative increase of 60%. In real terms, this means that each house in the entire sample improved their health environment by changing nearly 2 negative habits into positive ones. The largest

change in these scores come from the digging and construction of pit latrines and clearing vegetation from the immediate vicinity of the house.

The final evaluation of any health education campaign must lie in the reduction of the incidence of disease. Provision of the measurement of the reduction of disease level was not provided in the evaluation of this campaign, as the isolation of the multiple factors associated with good health would have proved impossible given the nature of the campaign and the records available. There have been reports of a large increase in the number of people attending rural dispensaries in many areas. There is proof that large numbers of people participated in the campaign; that people learned from this method and that literally millions of hours]were put into environmental changes as a result of the campaign.

SIGNIFICANT ASPECTS OF THE CAMPAIGN

It seem clear that the Tanzanian large-scale conscientization campaign in health education is one of the most interesting education projects to have taken place in Africa in recent years. Some of the most significant aspects and reasons why the campaign deserves very dose study by those concerned with development, particularly rural development, are:

1. An atmosphere has been crested in which people have been able to take some control of their own health it has been all too common for people in rural areas to see illness a being related to factors outside their control, or as caused by sociological difficulties in the community with both present and past inhabitants. Where the possibility of help has been recognized, it is seen too much in terms of modem medicine-the provision of which is hopelessly inadequate in rural Tanzania. This campaign has shown that radio and other media can be used to raise people's awareness that they themselves have control over many of the common health problems and that groups of people working together can change many of the least healthy aspects of the village environment,

2. Large numbers of the rural population have been given access to specific and relevant Information. The rural population makes up the bulk of all people living in Tanzania, as well as in most Third World nations. This campaign has shown itself to be very effective in reaching a very large portion of the rural population which has not, in the past, had access to more formal types of education because of high costs, shortsightedness in planning or simply different priorities.

3. The methods offer a realistic alternative to much-criticized "traditional" student-teacher relationships.

The shortcomings of traditional student-teacher relationships have been criticized frequently by people such as Ivan Illich and Paulo Freire. It is clear that an educational teeing for adults who are to direct their own development cannot rely on methods whereby one person is seen as an "expert" or teacher and possesses all knowledge and others simply recipients of knowledge. The emphasis in this approach is on complete and equal participation by the group members: they actively explore the relevance of the information to the reality of their own lives. This joint exploration creates lively understanding of a personal situation for -each one involved and becomes a strong motivating element for improving community life.

4. Cost per participant is low the campaign, by making us of a network of already existing extension offices and primary schools in: combination with the use of radio

programmes and mass- produced printed materials, was able to operate for about US$ 0.10 per group member This is an example of the radical savings which can be obtained through a careful orchestration of mass media, mass organization and small groups. With smaller numbers of participants, the costs are higher, but still attractive. The campaign in 1971, which reached about 20,000 participants, cost US$ 0.56 per person.

5. Grassroots political structures were strengthened. The campaign was a cooperative effort by several ministries and the political party, TANU. In areas such as Dodoma or Mtwara, where the campaign was very enthusiastically received, the study group leaden were often the 10 house cell leaders of the party. The effect of this was to provide an opportunity for the house cell units to have the kind of participation in local decision making on which Tanzania is depending: people's participation in their own development, i.e., development with the people, not for the people.

6. The mobilization of large numbers of people necessitates an extensive administrative and communication network. The lesson of this campaign. however, is that it is possible to use already existing structures, such as an agriculture or community development extension system, providing these personnel are given some training in the new methods.

7. A centrally-planned campaign has some dangers. There are always dangers in a centrally-planned campaign that the educational content will be seen by both the planners and the people themselves as something which is not to be questioned but merely acted upon There are many examples of health and family planning campaigns which merely pump the message into the heads of the people and expect results. Experience from the "Man is Health" campaign indicates that the number of campaigns which can effectively done on a national level may be limited. The information which is presented needs to be of such universal concern to those taking part that it will stimulate their own analysts and they will thereby act in manners appropriate to specific local situations. There may not be many subjects which can by universally applicable. There is no reason why these same approaches could not be used at a regional or even smaller level.

8. An effective mass campaign in rural areas needs the coordinated efforts of all the agencies and ministries concerned.

Without the coordinated effort of rural development officers, health education officers, adult education officers and some voluntary agencies, the results of this campaign would have been much less possible.

Good health depends on more than the attention of the health officers. It means consciousness raising, assistance with construction skill, even increased community production in order to have the necessary cash to buy such items as window netting or malaria tablets. Effective rural development of any kind needs a frontal approach rather than a single sector approach.

As the study of the campaign continues, it is hoped that the more detailed examination of factors contributing to the success of the campaign can be isolated. It is also hoped that some of the most important factors in planning similar campaigns can be indicated clearly the type of development effort has potential.

A WORD ON RECENT DEVELOPMENTS IN TANZANIA

A lot has happened in Tanzania since the 1973 health education campaign described in this study took place. In 1975, the country saw the culmination of a five-year literacy campaign that raised the literacy rate from roughly 25% in 1970 to 75-80% in 1975. This gain represents one of the most stunning educational achievements In Africa and an achievement that has taken place in a nation that is listed as one of the 25 poorest countries in the world.

1975 also saw the mounting of another mass campaign on food production and nutrition, the "Food is Life" campaign. (An excellent description of this campaign was written by the Director of the Institute of Adult Education, Fr. Daniel Mbunda and is available in the first issue of the Tanzanian Adult Education Journal.) The "Food is Life" campaign was, in many ways, more complex than the campaign described herein, since food habits and growing patterns vary from location to location. As with this campaign, there was a strong emphasis on practical achievement, Preschool community feeding programmes, worker canteens, and widespread development of gardens were some of the results of the campaign.

In November 1977, the Ministry of Education announced the achievement of universal primary education ... a place for every boy and girl to attend school. The method used to accomplish this goal was to take the lessons from the mass campaigns for health, literacy, and other aspects of political education and to apply them to the task of primary education. The communities built the schools themselves with their own skills and, largely, with their own funds. The teachers have been, and are will being trained through a combination of correspondence education, face-to-face instruction, and radio lessons-methods first developed to reach the broad adult population.

What about more mass campaigns ? The situation is not completely clear. There are some in Tanzania who feel that large-scale campaigns divert resources and energies for programmes that produce short term gains. But there are others who counter by saying that campaigns have demonstrated a capacity for doing what cannot be done in any other way and what is needed is the better linking of such large-scale efforts with ongoing programmes. Two topics for further campaigns. the rob of women in development and the use of appropriate technology are being discussed in 1978. Whatever the decision the programmes that are adopted will be carried out with considerable boldness.

The campaigns and the successes of adult education programmes, alone with other accomplishments in Tanzania, are announced with a combination of fanfare and humility. But they should not be seen as modern to be picked up and used. There is much room for improvement, much need for criticism and great cause for a continuing struggle. Nor should this paper be used as a blueprint. It should, instead, be seen as the presentation of materials for discussion and reflection.

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(From: <u>CONTACT</u> "The Human Factor: Readings in Health, Development and Community Participation." Special Series No. 3 June 1981.)

Handout 25C: The promotion of breastfeeding and proper weaning practices in the Ivory Coast

Project Support Communications Newsletter • Information Division, UNICEF, New York, N.Y. 10017

by Ute Deseniss, UNICEF-Abidjan

"Do you have children?"

"Yes, l have 29 children."

"Where they breastfed?" we asked a vigorous man of about fifty while pretesting the drain of the breastfeeding poster at the National Social Security Office in Abidjan, the capital of the Ivory Coast.

"Sure", he affirmed, "all my children were breastfed, and I will have more children, and they will all be breastfed"

He is a Muslim and has four wives. He works as an accountant in a private enterprise in an inland town of the Ivory Coast. While looking again at the poster, he continued, "It is good to see this African women breastfeeding her baby. This is something so natural, but people start to forget it, and it may even disappear one day. So it is good to remind us not to give up our traditions".

He read the text under the picture about the advantages of breastfeeding and said, "l insisted that my wives breastfeed the children as long as possible, as I know it Is important for the children, especially baby boys, so that they will always come back to their mothers".

It was interesting to note that all male respondents expressed their support for breastfeeding while the reaction from female respondents was quite different. This confirmed the result of a survey which revealed that only 0.7% of 421 children were bottle-fed due to the decision of the husband.

This was part of the survey undertaken by the Ivorian National Public Health Institute (INSP) from December 1981 to May 1982 investigating the child feeding practices in and around Abidjan. In collaboration with 20 socio-medical centres for MCH Care, the health education team of the INSP examined the nutritional status of 2284 children and found

that about 20. 3% of them were malnourished. According to the survey, 96% of the examined children were breastfed for about six months. Malnutrition before six months was only about 8.3%. This proves that breastmilk is the most appropriate food for babies for the first six months. Malnutrition increased to 17.6% for the one-year odds and to 339% for the 12 to 17-month odds. This is due to a rather kite Introduction of supplementary food. Indeed, children in the Ivory Coast are weaned on the average between the age of 11 and 13 months, varying from one ethnic group to another. On the basis of this survey, the INSP decided to carry out a nutrition education programme, starting with a nationwide sensitization campaign for the revalorization of breastfeeding and proper weaning practices based on local food produce.

The campaign, which was launched on television by the Ministry of Public Health and Population on 4 April 1983, lasted until the end of 1983. n was divided into two parts. The first part, lasting until the end of July 1983, dealt exclusively with breastfeeding. The second part, from October to December 1983, emphasized appropriate weaning practices.

All kinds of communications media, such as TV, radio, newspaper, poster, booklet, and popular song, were used in the campaign. The INSP contacted UNICEF for funds to cover the production costs of the posters, booklets. and the expenses for a health education workshop for its paramedical staff working in the MCH Centres.

In the course of the cooperation, UNICEF staff, particularly the Regional Nutrition and PSC Advisers, became more and more involved. This was especially true in the conception and preparation of the two posters and booklets. The WHO and UNICEF Representative in the Ivory Coast were interviewed on TV on the breastfeeding code, and the Regional Information Officer had at prime time an exclusive interview on the "B" of UNICEF's GOBI (Growth Monitoring, Oral Rehydration Therapy, Breastfeeding Immunization)

During the second phase of the campaign, the Regional Nutrition Adviser contributed to the National Child Nutrition Workshop on Growth Monitoring, and the Regional PSC Officer demonstrated educational techniques on Oral Rehydration Therapy.

It is too early at this stage to say anything definite about the impact of the campaign. An evaluation is planned for the second half of 1984. However, there is no doubt that the campaign had at least succeeded in raising awareness. The breastfeeding theme became a regular feature in the media. The posters were hung up not only in MCH Centres, but also in public places. Even while waiting for the bus, people's attention was drawn to the breastfeeding poster placed on the back of the buses.

The campaign was probably biased towards the urban audience. All programmes, except a few radio broadcasts, were in French. There was also too much dependence on TV, which was not very reliable as programmes could be cancelled and schedules changed without prior notice. This affected the campaign in the sense that it lacked a logical progression

Never the less the public became aware of the importance of breastfeeding. Several times we witnessed people making remarks like " ...at least now we have proof that breastfeeding is the bed for the baby."

The campaign aimed at a nation wide sensitization about the advantages of breastfeeding. It did not intend to frustrate mothers who can not fully breastfeed because they have to work to earn a living, in or attend classes. To deal with the problem of working mothers, the training of the nounous (nannies), who look after the babies while the mothers to work, is considered as one of the follow up activities of the campaign. In general these nounous are young girls without any schooling. They are mostly members of the extended family of the children that they look after. They come from the village attracted by the city life. Unfortunately, research showed that only 20% of these nounous know how to prepare infant formula correctly. The training approach agreed on is to first make an inventory of their educational needs, and then prepare the training package. Personnel from Social Centres and MCH Centres will visit spots where nounous usually sit together and talk in the afternoon, with the babies in their arms or at their backs, or crawling on the floor. These leisurely moments offer opportunities for educating the nounous on appropriate infant formula preparation, hygiene, weaning practices, first add, etc.

With reference to weaning, special activities on family nutrition education are envisaged. Malnutrition of children is often a consequence of the mother's ignorance of a balanced diet, and not necessarily a problem of means. Thus the weaning poster explicitly showed food for body building for strength and for protection. The tradition of serving food to men before the other family members also has to be questioned.

Men can play an important role in the promotion and protection of breastfeeding and proper weaning practices by providing their wives with the encouragement and Sup port that they need. An appropriate family nutrition education programme is probably a good starter to get the men involved.

(From: Project Support Communications Newsletter, UNICEF.)

Handout 25D: Guidelines for readings and presentations

As you read the assigned article describing Mass Media Health projects on PHC and CCCD, keep in mind the following questions.

- What kinds of media, interpersonal and community organization techniques were used and how?
- Have you used any of the techniques described in these articles? How well did they work?
- What are the advantages of combining mass media and interpersonal techniques?
- What are the advantages and disadvantages of these uses of interpersonal techniques and visual aids?
- What ideas from these articles can be used by PCVs and Counterparts when conducting health education at the community level?

Be prepared to give a brief overview of the project that includes answers to these questions. Use your imagination in the way that you present it.

Trainer Attachment 25A: Communications: A potent force for change

More than a medium, more than a message, communication is the total process whereby people understand each other, and each other's environment and aspirations. Too often it is seen by the "haves" merely as a way of passing on instructions and ideas to the "have-

nots". Correcting this misperception, and placing real communication at the centre of development programmes, can help overcome the obstacles that stand in the way of social change. By SALIM LONE.

Salim Lone is a Kenyan journalist, until recently Editor of the monthly magazine Viva, currently an information consultant with UNICEF in New York.

In discussing ways to improve his country's economic performance, Mozambique's Minister of Information was recently quoted in a New York Times article as saying that what was needed was a return to the methods the ruling Frelimo party used during the liberation struggle against the Portuguese colonies.

"Then the people in the liberated areas would debate and find solutions to their problems", said the Minister, Luis Cobaco. "Now there is a tendency to call in the engineer to solve the problem, without discussing in with the people who are experiencing the difficulty".

The minister's words reflected the growing realization in the international community that a major shortcoming of many development efforts of the past tow decades has been the absence of close communication between all those - planners, professionals and the population - involved in development programmes.

Not that awareness of the importance of communication wasn't there. But just as the process of development was seen primarily as the as the provision of goods and services to the people, communication was conceived as a static, one-way flow of information from the "professionals" to the masses. Enormous amounts of energy and resources were spent on developing a technology which would make "communication" as instantaneous and far-reaching as possible and the whole exercise was predicated on the notion that those providing this technology were also the ones to provide the ideas and the solutions for those at the listening - receiving - end. As Juan E. Bordenava said at a recent UNICEF workshop, this communication paradigm "fitted the requirements of the international and national patterns of domination of the peripheral by the central countries, and of the less privileged majorities by the social elites".

The sophisticated new systems - new generations of satellites being launched, submarine cables being laid, optical fibres and lasers being harnessed for information transport - actually emphasize the technological mastery of one group and heighten the fear of scientific incompetence of the others. They have even sometimes become the instruments for hindering the very participation and interaction that communication is meant to promote. In the words of Armando Vargas, the former President of the Centre for Third World Communications and now Costa Rica's Minister of Information, the telecommunications revolution is "playing perhaps an even more important role than the steam engine in the industrial revolution. But it is asserting increasing control of our economies, ways of life and social values... and this control is in the hands of powerful organizations whose principal objectives are increased private profits and an enlarged market share".

It is from the development arena that some of the strongest challenges to the established communication structures are emerging. One element of the challenge comes from those struggling to place communication between the deprived communities and those

providing them expertise, at the centre of development planning. Contending that human communication is the pivot on which balances the success or failure not only of individual programmes but of the whole process of development, these protagonists argue that traditional societies are socially literate. Over generations, they establish their own norms and technologies, which were dynamic and constantly propelled the societies to higher stages of production. Not to understand this, and to perceive third world communities as helpless bystanders who are too backward to understand the interventions that are being organized on their behalf, is a sure recipe for failure.

The argument would seem painfully obvious were it not for the fact that even to this day, the vast majority of development programmes are conceived and executed without a serious communication component. David Mason and Ramzan Azhar describe in an article on pages 14-16 how a scheme to provide much-needed iodinated salt to a region in Pakistan suffering from an extremely high incidence of goitre foundered badly because the entire promotional campaign was devised without even a rudimentary understanding of the people's sensitivities. In a deeply conservative, Muslim population, the salt was promoted with photographs of a smiling, unveiled young woman, to which the bulk of the population reacted with hostility. It was only after the unsold salt packets began piling up on store shelves that UNICEF's communications staff in Islamabad were asked to come in and do some quick rescue work.

Communications personnel are rankled by this "plan first, communicate only after initial failure" syndrome. But as more and more of those after-the-fact appeals are heard, it is becoming clear to planners that communication is not merely another hardware component consisting of posters, radio messages, and so on, but a central and decisive factor of any programme. Whether it is an effort to reduce the death rate from water-borne diseases in West Africa or an attempt to increase the rice yields in Asia, the communication of the ideas involved does not take place automatically. On the contrary: not only is their value far from self-evident to programme recipients, but their displacement of an existing set of strongly-held ideas is a complex undertaking.

Helping communications gain a more appropriate place in the development context has been enormously helped by recent evidence about its impact. We have seen, for example, the massive shift away from breastfeeding in just one generation. The aggressive use of marketing techniques and the mass media to convince mothers of the merits of formula feeds has contributed to the breastfeeding decline. In a Latin America study we have seen how two groups of children from identical, impoverished social classes show markedly different nutritional status, thanks in the main to the ownership of radios by the healthier families. And we have seen the yearning in many countries for expensive imported clothing inferior in quality to locally made garments, on the strength again of the myths and lifestyles promoted by their communication environment. We are now realizing that when we talk of communications in the context of social and behavioural change, we need to consider not only the "medium" and the "message" but also all those ideas, habits and aspirations acquired through social contact and interaction.

Means and ends

Amongst those who have been advocating a more careful study of communication for social development is Andreas Fugelsang, a development specialist who learned a great

deal from the cultures in which he lived. Noting the tenuousness of traditional culture, which "is a carefully balanced man/environment interaction system, in which every detail has both technological function and spiritual significance and cannot be disrupted without drastic repercussions for the function of the whole", Fugelsang argues that the way new systems, processes and ideas are introduced into a way of life is as important as the benefits which those new systems and ideas hope to generate. To introduce what seems eminently logical to the outsider might in fact strain the recipient community's delicate fabric of socio-economic cohesion.

Fugelsang gives the example of an agriculture extension programmes in Ethiopia which introduced a new plough with a steel shave which was going to substantially enhance agricultural yield. But reception of the new plough was unenthusiastic: the plough was heavier, and the agricultural base could not support the better feeding of the oxen necessary to enable them to pull it.

To work in these traditional environments, Fugelsang argues insistently, requires sensitive and astute workers who can sympathetically comprehend the web of social relations of the group. Villages are not the collection of individuals that industrial, urban populations tend to be, and their attitude towards their leaders is different too. Modern societies allow professionals to lead them not necessarily for what they are intrinsically, but for their position in the system. But in the village, a professional will have credibility problems until he or she has proved his worth on a purely human basis. "Villagers live in communion", says Fugelsang, "and life there is characterized by intense communication and interaction". John Siceloff's experience in Peru and Tanzania described on pages 18-19 provide a concrete illustration of this point.

The distorted view of traditional societies that Fugelsang and others have in the last decade tried to correct was responsible for the hierarchical approach typical of so much development work. This approach is closely related to the paternalistic method of teaching described by Brazilian educator Paulo Freire as a "banking" system, where information is passed down from the active teacher to the passive recipient. In Freire's view, this "prescriptive teaching" diminishes the learner who is encouraged not to act upon his or her world, but to reflect back the ideas given by the teacher. Freire counters this whit the notion of "liberating education" which treats learners not as objects but as subjects who act upon their world to change it. The tenets of Freire's thought are that no-one can teach anyone else; no-one learns alone; people learn together, acting in and on their world.

Freire rejects conventional education as the tool ruling classes use to discourage the poor from learning and understanding the bases of their deprivations. The learning experience's primary purpose is to help change society, says Freire, particularly that aspect which has denied the illiterates an opportunity to participate in their own destiny.

The commercial communicator

Among those who must be classified as successful in fully investigating their target-group and understanding how to communicate with them are the commercial manufacturers. Their advertising campaigns have revolutionized consumption habits and lifestyles across the world. They have saturated the media with advertising carefully

researched to gauge the concerns of their audience, and have succeeded far better in changing behaviour than have consciously-designed development programmes. In most third world countries, companies marketing agricultural products have reached remote farming communities with weed killers, fertilizers and insecticides. But try asking the same villagers if they know what is the best remedy for diarrhoea. And in many poor urban areas people will pay hard-earned cash for snacks and junk food, persuaded by commercial advertising that they are somehow "better" than vegetables from the backyard.

A growing number of voices, recognizing the impact of commercial advertising, are therefore advocating that their techniques be adopted in the promotion of social development. They argue that not to do so is to abdicate the print and air waves to those whose primary aim is profit and whose objectives are in direct conflict with the development propagandists. Richard Manoff is an experienced advertising man who has used his commercial skills to promote developmental messages in the third world. "Against the enormous power of the mass media to fashion food habits via advertising, the nutrition educator confined to traditional channels doesn't stand a chance", he asserts.

Manoff begins with a religious conviction that there is no idea that cannot be promoted as are commercial products. The way to get your message across, he says, is to create one which is short and confined to a single idea. "If you look through history, you will find that the great messages have been simple and short Moses only bad 10 commandments and they hardly add up to 60 words, and the 17 Rock Edicts of Ashoka are equally brief and to the point.

"Since we are not trying to make the rural mother a nutritionist or a doctor, I don't see why so many of you are writing books or pamphlets which few people except your colleagues are going to read", he says. "The development worker's approach is often too serious and academic and therefore less impactful. For example, when I was helping promote oral rehydration therapy in Nicaragua, we tried to make the message simple and catchy. We just said: "Make *super lemonada* at home - it will fight diarrhoea' The lemonade concept was one most mother related to immediately, and that is basically what anti-dehydration is: lemon, salt and sugar. And we didn't give it any formal name such as ORS, either. The reach of the message was enormous".

Participation and communication: two sides of one coin

While many educator and communicators do not accept Freire's ideological analysis, his emphasis on participation reflects what is probably the strongest new orientation in development work. The whole strength of primary health care initiatives around the world, as well as the efforts to elicit community participation, are indications of this recognition. The mere diffusion of innovations, it is being accepted, will at best have limited impact on the drive to increase the span, leave alone the quality of life. UNICEF'S current focus on, among other things, oral rehydration therapy and breastfeeding, is based on certain social, not technological, configurations.

The technology, of course needs to be available, and at low cost. But what really counts is how the technical intervention is integrated into the social structure of the target community. For example oral rehydration therapy has been technically available now for

many years. But it has brought about no serious reduction in diarrhoea-related child mortality (over five million deaths a year) because of social perceptions about diarrhoea. Firstly, it is not regarded by most "target" people as life-threatening, since every child is frequently afflicated, but rarely dies from diarrhoea. Secondly, most mothers think that the way to stop the loss of fluid that characterizes diarrhoea is by ceasing to feed the child completely.

Clearly, therefore, any intervention aimed at the rehydration of imperiled children must first understand and address the community's view of the illness - and that is what communication for social development is all about. As Revy Tulubungwa, chief of UNICEF's Project Support Communications Section stresses: "Communication is the process through which human beings share social and cultural interactions, information, knowledge, experience, ideas, skills, motivations and aspirations". In other words, communication is decidedly not the diffusion of information and instruction alone.

Clearly, neither commercial advertising techniques, or a comprehensive communication strategy, is going to solve the most fundamental problem facing humanity, which is to eradicate poverty But correct communication will play its role. For decades now the mass media and other have promoted development as a process of "modernity", with technology providing the answers to human deprivations. Tractors will replace oxploughs, earth homes will give way to structures of stone and steel, with refrigerators area cookers inside, and milk will be available in cartons. So people started insisting on having the latest, most modern, most technologically "superior" products: injections from the doctor, instead of a tonic, for example; formula foods instead of breastmilk; a car instead of an ox-cart; a video receiver instead of a school textbook.

A more wholesome message

It is now not uncommon for communications practitioners to preach more modest more wholesome and more attainable goals. The emphasis is on social cohesion, the strength and wholeness of all cultures, the use of appropriate technology, and raising living standards not through material acquisition but through improved nutrition, health, and other essentials. We don't want to transform our environment overnight but to make it more productive and liveable, and share more equitably the fruits of human labour.

Such a message will not eradicate poverty. The causes of poverty are structural, and these structures, basically exclusionary and exploitative, will ensure that the communication process remains in the control of the privileged. But despite this major constraint a comprehensive communication strategy can help awaken the people to unchain their energies in the service of development. This dynamism is difficult to trigger, because in every social system, regardless of its insufficiencies, routine and tradition provide deep security. A culture is a collective identity and cultural change, even when it is generated by the people themselves, can be disorienting and fearsome.

The last frontier in development is also the largest. Knowledge is a language with an infinite vocabulary. It is also the only resource in the world which actually grows with use and which cannot be depleted To communicate effectively what we know will be for all of us to learn that much more.

Trainer Attachment 25B: Making print materials easier to read

Tips for Clear Writing

Health writing will generally test at a higher reading level than some other subjects because health-related words characteristically have more syllables. Often the writer cannot avoid using technical language but the effects which these words have on readability can be minimized by writing short, concise sentences and by defining difficult words or terms for the reader.

1. Organizing the material

• Use titles and subtitles to clearly define the organization and flow of ideas.
• Use bold face, italics, or underlining to emphasize important words and ideas.
• Begin the material with an introduction to state the purpose and to orient the reader.
• Use a summary paragraph to end a section and to recap major point.
• Locate appropriate visuals (Charts, photos, graphics) next to the related ideas in the text.

2. Within a paragraph

• Use one idea per paragraph to emphasize each important concept.
• Start each paragraph with a strong topic sentence.
• Vary the length of sentences.
• Use examples to clarify ideas with which the reader may not have had experience.

3. Within a sentence

• Keep sentence short (approximately 9 to 10 sentences per 100 words).
• Vary the length of sentences.
• Avoid complex sentence structures and long, fact-laden sentences.
• Use the active rather than the passive voice.

4. Choice of words

• Avoid polysyllabic words when possible.

• Avoid specialized vocabulary and complicated expressions. When specialized vocabulary is essential, a parenthetical definition or a glossary should be included as part of the text.

• Avoid abbreviations except when commonly understood.

• Use shorter words.

Trainer Attachment 25C: Example of planning for a picture series

TOPIC: How to Take the Temperature of an Adult.

LEARNERS: first year community health nursing students.

OBJECTIVE: The learners will be able to describe in order the six steps in taking the temperature of an adult.

PLANNING STEPS:

1. Simplify the content and identify key words

Steps in taking a temperature include:

- **clean** the thermometer with alcohol.
- **shake** it down to less than 36 degrees (centigrade).
- **place** the thermometer in the mouth.
- **leave** the thermometer in place for 2 minutes.
- **read** the thermometer .
- **clean** the thermometer again with alcohol or soapy water.

2. Sketch different pictures and words to show each step or idea.

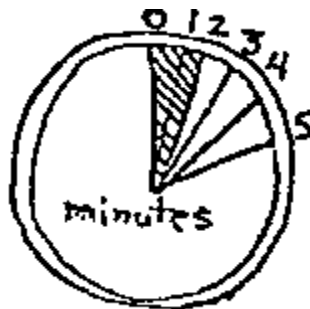**Leave the thermometer in place for two minutes.**
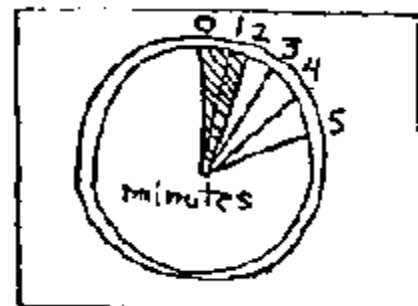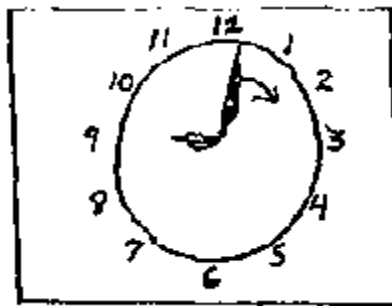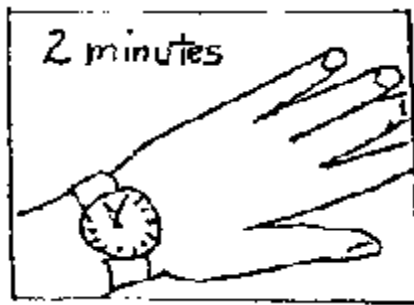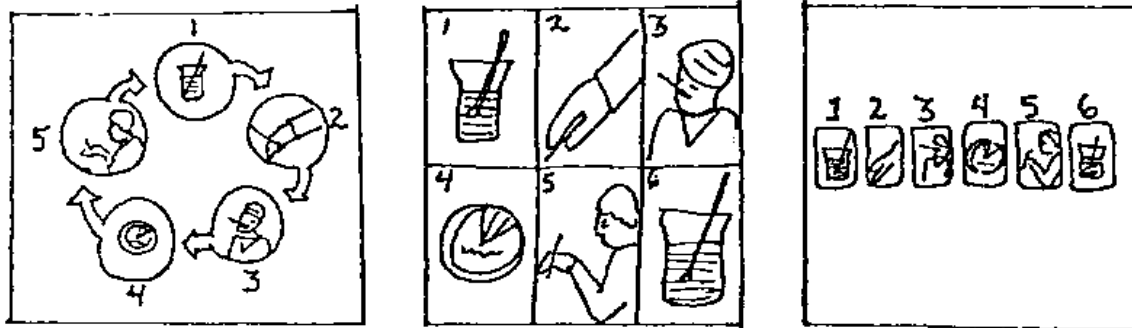

Read the thermometer.

3. Select the picture that you will use for each step or idea.

Picture

4. Try out different ways of organizing the Pictures.

Picture
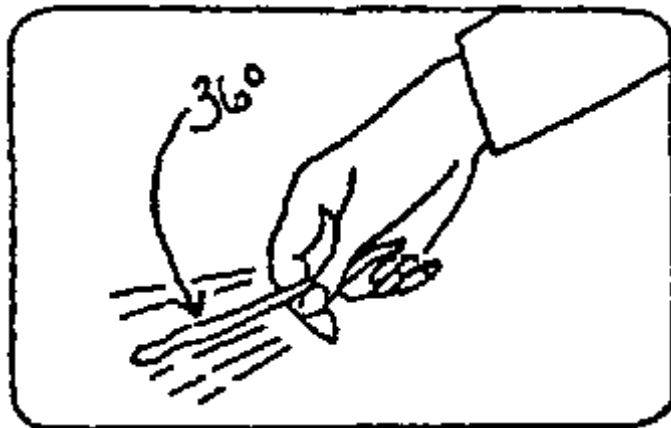

5. Prepare the pictures.

Title: Steps in Taking a Temperature with a Thermometer

Visual	Narration
Visual 1	Taking an accurate temperature is a very important task for the health worker to perform.
Visual 2	There are six major steps for taking the temperature of an adult using a thermometer. **STEP 1**: Clean the thermometer well in alcohol
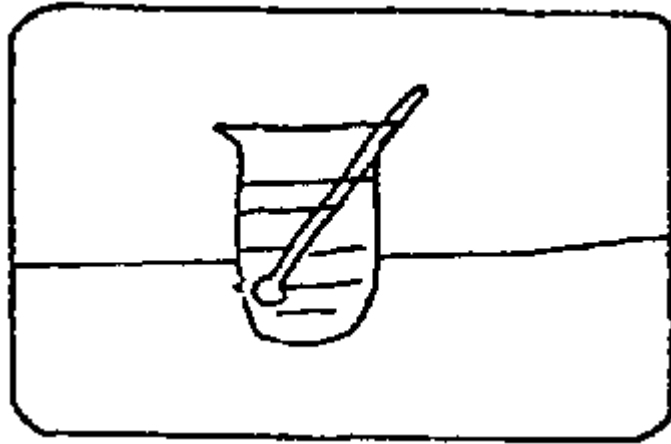
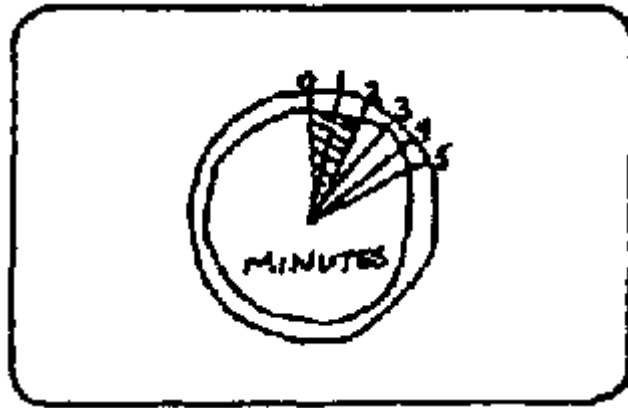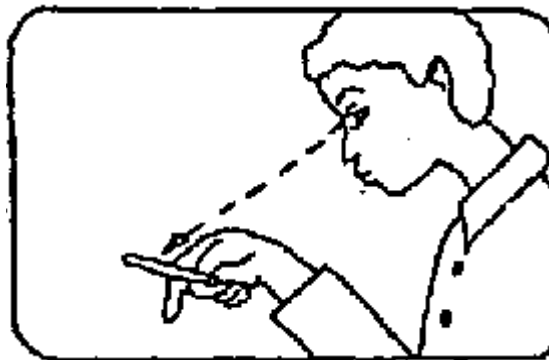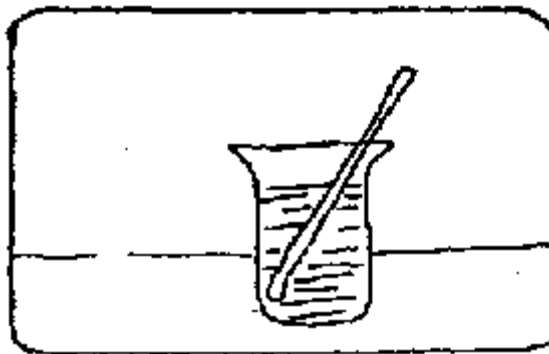|	
Visual 3 	**STEP 2**: Shake the thermometer until it reads less than 36 degrees (centigrade).
Visual 4 	**STEP 3**: Place the thermometer. In an adult the thermometer is usually placed under the tongue.
Visual 5	**STEP 4**:

	leave the Thermometer in place for 2 minutes.
Visual 6	**STEP 5**: Read the thermometer.
Visual 7	**STEP 6**: Clean the thermometer again with alcohol or soapy water.
Visual 8	What are the 6 steps for taking someone's temperature?

| | (As participants answer the question, add the steps one at a time.

Shuffle the visuals and allow one or more participants to arrange the steps in the correct order.) |

Trainer Attachment 25D - Radio instructional programs: Some practical guidelines for scriptwriters and planners

by *Esta de Fossard*

In today's world of universal and constant communication, radio is still one of the most effective ways of sending out information to a great many people over wide distances. In the United States, we are inclined to think of radio as useful for music and commercials and for very little else, but in many other countries of the world, particularly Third World countries, radio remains an important medium of education. To use radio effectively for education requires an understanding of the strengths and weakness of the medium, and an understanding of the methods of structuring and scripting radio instructional programs.

Most people assume that anyone who knows a subject well can automatically write a radio script for it. But good writing does not come automatically in any medium, perhaps least of all in radio, where the subtleties of the medium must be understood as well as, if not better than, the subject matter itself.

Instructional radio must always reflect its *raison d'être*: to instruct. A radio scriptwriter should therefore constantly remember the script's purpose, its *measurable instructional objectives*, and its *audience*.

The entertainment value of an educational script should be subliminal, almost accidental. Good education can be intriguing without being "entertaining" (in the contemporary sense of the word). Because a good educational radio script should convey the same enthusiasm, integrity, and fascination as a good classroom lesson, it is essential that the radio scriptwriter truly appreciate the subject being taught.

The Nature of Radio

Radio is the medium of visual imagination. It presents no actual pictures of its own, but invites its listeners to provide their own "pictures" in much the same way as reading does. The luxury of imagining pictures has been largely lost in our television-saturated age, as has our ability to listen attentively. The writer of a good radio script, therefore, must choose his or her words as carefully as a poet to attract the listeners' attention and encourage them to "put themselves in the picture".

Because it leaves so much to the listener's imagination, radio is a highly personal medium. The listener enters into a one-to-one relationship with the radio voices, as if indulging in conversation with them. A good radio script takes advantage of this intimacy to encourage listeners to feel a sense of personal involvement.

Constraints in Writing for Radio

Because radio relies on only *one* of the listener's senses to receive *all* of the information, complex ideas must be broken down into small concepts and reiterated in a variety of ways. It is useful to keep in mind that:

• characters must be clearly recognizable by their voices rather than by their physical appearances;

• names of characters must be used more frequently than they would be in normal life, or in visual presentations;

• emphasis and emotion must be carried by the voices or enhanced by accompanying "mood music".

While characters can be portrayed very effectively through voice, the setting presents another problem. In a visual presentation, the audience knows immediately when the action has moved from one place or scene to another. In radio, a scene change has to be indicated by a musical bridge, by ambient sound effects, or by an indication (preferably subtle) from one of the characters that the audience is now required to image itself in another place.

The Need for Restraint

At the same time, however, a radio program must avoid "medium overkill". There is a tendency, particularly in inexperienced producers and writers, to over-use sound effects and music. Too much sound can be as distracting to an audience as too little. Sound effects and music in radio production should be as appropriate and as subtle as visual imagery in a good film or television production.

In the same vein, it is particularly important for instructional radio to avoid using too many words. Indeed, almost ironically, words need to be used more sparingly than they might be in visual presentations, or than they would be in a classroom lesson. It is all too easy for listeners to become swamped by a sea of words and miss the message in the words. The skill of any educational scripting, be it for radio, television, or textbook, lies in making the instructional message clear, but not so blatant as to be boring.

The Needs of the Audience

An understanding of the audience is essential. The writer needs to know the age, the experience (both with radio and with the subject being taught), and the ethnic and cultural backgrounds of audience. He or she must also know the educational methods to which the audience is accustomed.

It is advisable for the scriptwriter(s) to sit in the classrooms for a number of sessions before beginning to formulate any ideas of how the finished script might be put together. Good educational scriptwriters are like good architects - they might have all sorts of ideas for designing beautiful buildings, but they must keep in mind the function of the building they have been asked to design, and be willing to tailor their ideas to the needs of that function.

Some Practical Guidelines

• Restrict the number of characters used-two or three at one time is enough. Too many characters confuse the audience, and it is very hard to establish any real identity for each character in, say, a half-hour format.

• Restrict "hard core instruction" to the main character. If you wish to use peripheral characters in story lines or for songs and games, let these be supplemental to the main teaching message. Students are accustomed to accepting the main instructional message from an identified "teacher". This does NOT mean that the character(s) giving the instructional message have to appear in the program as teacher(s).

• Use "signature music" to announce the entrance of characters and to introduce various segments. Radio listeners count on musical cues to set scene for what is to follow.

• Present the lessons in a recognizable, but alterable, format. An instructional radio series should see itself as an oral textbook. A good textbook uses a well-designed format, so that students using it soon learn that, for example, each lesson begins with a vocabulary lesson; followed by a story; followed by a practice exercise; followed by a summary. Similarly, the radio lessons should be structured around a clear format. Within that format there is room for considerable variation, and there is no harm in occasional divergence from the format, but it is unfair to expect a student (of any age) to glean the lesson from an irregular mix of ideas.

• Balanced the format, making sure to combine strong teaching sections with "relaxation" sections of games, music, reinforcement, etc. For certain types of programs, it is highly effective to create what I call a "donut/donut hole" format, where the "donuts" are the tight instructional pieces and the "holes" (equally editable) are the holes can be lifted and used tune and again in many programs, as children love to hear their favorite songs or games or stories over and over again. (Donuts are small, round, sweet breads with a hole in the middle of them). This type of format also makes it easy to make changes in a program that has been found wanting - it means perhaps the replacement of a number of donuts or donut holes without having to restructure and re-record the whole program.

• Keep sound effects subtle and appropriate. Don't be tempted to throw in a muted trombone every time a character yawns.

• Finally, if you want your radio instructional script to be a success, make sure it goes from your script writer into the hands of a producer who knows how to use the medium of radio, and to actors who are trained in radio delivery!

Since the advent of television, there has been a tendency for us to forget the sense of hearing - except for soaking up background music - and concentrate almost exclusively on sight for receiving information. The ears, however, give as direct access to the brain as do the eyes, and radio should never be considered a little brother of television, or a lesser medium of instruction. Correctly understood and effectively used, radio can be the gateway to extended knowledge for millions of people throughout the world.

Esta de Fossard is Director of Adult Education at WCET Channel 48 in Cincinnati, OHIO. Her background is in radio instructional writing, a field in which she has been active both nationally and internationally.

Landless Villager Puts Video to Dramatic Use

Is video useful in communication for development? It depends on how it's used. Anil Srivastava of the Centre for the Development of Instructional Technology (CENDIT), New Delhi, India, tells how he and his colleagues took a change which helped villagers to communicate honestly. He writes:

Video fascinates me. I know it to be an appropriate technology for communication for development. It is a more manageable and accessible technology. With little training people can learn to handle the equipment, and as they can see for themselves what they are recording on tape, they tend to learn fast from the experience. People tend to participate in making videotapes. [...] We did not think that we had the answers and we did not have an ideology which seems to fit the situation. We felt that perhaps video was a channel, a platform for a dialogue with the community or within the community. The [...] have to decide what to do, we are just going to be the extension of the hardware. The problem is that this kind of work takes a long time to yield any results. A person involved in the problems of his community can instinctively present it much better. He gets to the heart of the matter while the 'outsiders' fumble around.

This was apparent to us the very first day we brought the portapak to the village we were working in. After recording the pretty images of rural countryside and poverty, we ran out of ideas. There came an old man, a Muslim and a grandfather with his granddaughter in his arms. He peered into the viewfinder, pointed the camera at the tree and the children and then when we played back what he had just recorded he was amused. He was a little more daring. He asked us whether he could take it and use it. I do not know what got into us but one of the group said "go ahead".

He vanished for more than an hour and we thought that was the last we would see [...] portapak that we had borrowed in the first place. But he came back as he had run out of the tape and wanted it played back. What this landless laborer had done was that he went around accosting better-off farmers and asked them what they thought of the problems of poor landless laborers like him, what they are doing about it, and so on. It was a revelation for, as if peeling an onion, layer by layer, he brought out the core of hypocrisy. They all wanted to help their brothers but what can they do, there is not enough kerosene and the diesel and fertilizer and [...] was obvious from the "interviews" that no one is going to do anything for the poor, it is they who must help themselves. I could not have made that program nor could my colleagues because we would have been too impatient. We would have superimposed our views.

(The Centre for Development of Instructional Technology is a non-profit society, founded in 1972, which believes that communication accelerates social change. CENDIT works mainly in villages enabling people to use media for their own development.

Trainer Attachment 25E: Concept development (PSA's)

Stage 2: Concept development

On the basis of Stage 1 planning and communication strategy selection, message concepts are developed during Stage 2. These concepts are ideas and approaches for a full message. Concepts consist of rough art work (a line drawing or sketch) and phrases describing the main ideas for a message. Concepts also include several possible lines or slogans that summarize the major theme of the campaign.

Developing message concepts

A number of different concepts can be developed for one PSA or for each PSA campaign strategy. Each concept must be based firmly on the communication strategy selected in the planning stage. If the strategy centers on communicating the *effectiveness* of a disease detection procedure, concepts that stress any other benefits or attributes are off the mark.

Developing message concepts involves considering several issues:*

• What type of message format should be used - a testimonial from a celebrity or a person typical of the target audience, a slice of life (i.e., portrayal of a real life situation), or a vignette (i.e., a series of independent sketches)?

• What type of presenter should be used to convey the message - a physician, a nurse, a patient, a celebrity, or a member of the target audience?

• What is the message's appeal - should it be emotional, logical, or humorous?

*Chapter 3 and Appendix 1 contain mom detailed information regarding various communication message approaches and their effects.

Many different approaches might be used, but whichever one is chosen, it must reflect the communication strategy. If the strategy is to promote compliance with treatment, message concepts that focus on detection are off the marl; and should be discarded. To deter mine whether concepts are likely to be effective, these concepts are pretested among individuals typical of the target audience.

Stage 3: Message execution

During the message execution stage, complete messages are developed from the concepts selected in Stage 2. These messages also are pretested among the target audience to ensure that tines, are understood, relevant, and acceptable.

Guidelines for effective message development

While there are many ways to produce a message, some techniques are more effective than others. This section summarizes basic guidelines for effective message development. A more detailed discussion can be found in Appendix 1.

It is important to keep the message short and simple. Remember, you only have 30 to 60 seconds to convey it. Most important, messages should be relevant to the target audience - relevant in content as well as character and tone. The message must be interesting and entertaining. Keep in mind that PSAs compete for audience attention with other public service and commercial announcements.

Emphasize that the information in the message is in some way new. Select only one or two key points that answer the questions: who? what, when? where, and v. try? Be completely accurate and tell target audiences all they need to know. Don't depend on their writing or calling for information. Try to present the message in such a way that viewers or listeners can act on the information. Give the audience specific behaviors they can perform. If appropriate, demonstrate the recommended behavior and teach the skills required to perform it. Research has shown that the best results can be achieved when the benefits of performing the desired behavior are communicated.

Repetition of the subject will help increase retention. Many PSAs also use slogans to help their audience remember the message. Examples of slogans used include "Treat it for life," a slogan used in high blood pressure messages; and "Don't be fuelish," a slogan used in PSAs on energy conservation. The message, however, should not rely entirely on the slogan to communicate its main idea Far television messages, reinforcing the spoken word with visual images and words on the screen also will enhance the potential for effective communication.

The personality or organization used should be credible to the target audience. In some cases, an authority figure, such as a physician, will be effective ID other cases, the average person, or persons typical of the target audience, will have a greater impact on viewers. Celebrities may be good presenters, but they can detract from the message, because the audience may remember the personality rather than the message Too many characters or a crowd scene will confuse the audience. A testimonial, a demonstration, or a dice of life appear to be more effective than a vignette. A straightforward presentation of the facts is often a more effective appeal than fear, humor, or warm and touching situations. Inducing fear and using negative appeals often do not work as well as fear reduction or stressing the benefits of compliance. Fear of social disapproval may be the exception.

The National Cancer Institute's use of a testimonial approach: "I never thought an, of my children would get cancer. So when my son did, I was frightened. But then I learned the facts..."

Humor can be effective but only when it is appropriate to the subject of the message An appeal to the emotion'; also can be an effective method of persuasion. Logical or rational appeals seem to be more effective with motivated, intelligent, and sophisticated audiences, while emotional appeals work better in motivating those who are indifferent. If possible, communicate both sides of the issue - the problem and the solution.

The New York State Department of Health's use of a humorous approach in a PSA on prenatal care.
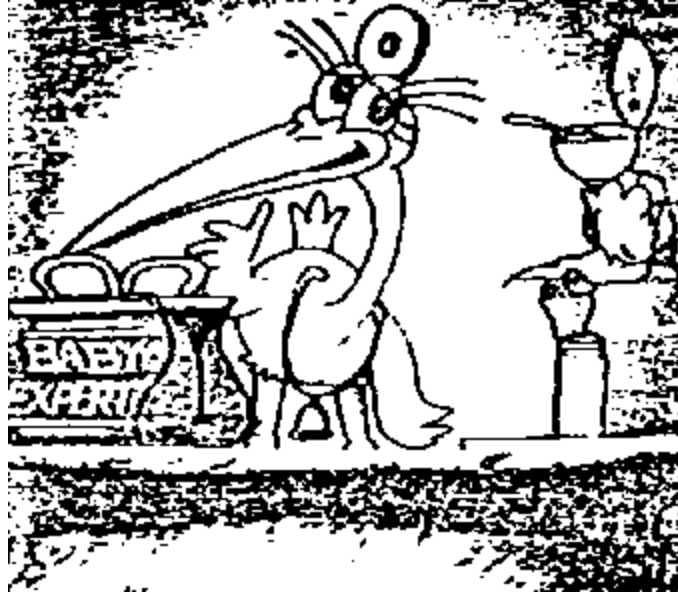
Message development guidelines

• Keep messages short and simple; just one or two key points

• Repeat the subject as many times as possible

• Superimpose your main point on the screen to reinforce the verbal message

• Recommend performing specific behaviors

• Demonstrate the health problem, behavior, or skills (if appropriate)

• Provide new, accurate, and complete information

• Use a slogan or theme

• Be sure that the message presenter is seen as a credible source of information, whether authority figure, target audience member, or celebrity

• Use only a few characters

• Select a testimonial, demonstration, or slice-of-life format

• Present the facts in a straightforward manner

• Use positive rather than negative appeals

• Use humor, if appropriate, but pretest to be sure it does not offend the intended audience

• Be sure your message is relevant to your target audience

The terms "animatic" and "photomatic" are often used to describe rough television messages. The terms are derived from the type of visuals used in the story board. If line drawings are used, the rough PSA is called an animatic; if photographs are used, the

rough PSA is called a photomatic. The video portion of these rough messages is produced by shooting the storyboard frame by frame, on videotape or film Motion is simulated by the camera's moving in or out ("zooming") or moving left to right ("panning").

(From: Making PSAO Work)

Trainer Attachment 25F: Developing print materials for nonliterates

Health education materials using only pictures are needed in many countries. The end result may look simple but the development and production process is complex. Margot Zimmerman and Joan Haffey describe PATH's* work In this field.

Margot Zimmerman and Joan Haffey, PATH, Canal Place, 130 Nickerson Street, Seattle, Washington 98109 USA.

*PATH - the Program for Appropriate Technology in Health.

PATH has been preparing illustrated materials for Don-literate audiences for several years. Their first health-related pamphlet, on how to mix and give oral rehydration salts (ORS) solution to a child with diarrhoea, was designed in Mexico.

Other PATH* projects to develop instructional materials and packaging to improve the understanding and acceptability of ORS have been carried out in Bangladesh, Indonesia, the Philippines, and Thailand [1]. A new project was recently begun in Sri Lanka.

(1) Reprints of a paper describing these projects, "ORS: Promotion of Acceptability arid of Safe and Effective Use, are available from PATH.

Broader lessons

Besides the detailed guidelines above, PATH has also learned some broader lessons. These apply to any efforts to communicate information about health or development.

Continuous field-testing and revision

As materials are prepared, continuous kid testing and revision with the intended audience arc essential to ensure that the materials are understood and serving their purpose. Multi-level approach When introducing a new product or method, a broad approach to providing information to those who will come in contact with it is best. Doctors, nurses, fieldworkers etc. all have different information needs, and materials should be appropriate to the services they perform and what they need to do their work more effectively.

Involving the national programme early pilot project that is developing materials intended for use on a wider scale must involve the final distributor of the materials at a very early stage. PATH has seen from its own experience that failure to do this can prevent even successful materials from ever being used throughout a country. Government staff must feel a part of the project. This also helps to ensure that elements of the message or materials design will be appropriate to *mass* distribution.

Unexpected findings

Project staff should realize that this work can lead to unexpected findings. While evaluating the Mexican ORS pamphlet, it was found that, despite the scepticism of both US and Mexican staff conducting the research, both men and women preferred a version of the pamphlet showing active involvement of the father in the care of the sick child to one with only the mother. New projects will teach new lessons to target audiences and staff alike.

National self-sufficiency

Pilot projects that develop information materials by using the methodology described here also serve a broader purpose: project staff will be learning skills that build a national expertise in producing other information materials. Ibis can lead to national self-sufficiency in this type of education and communication.

Guidelines for production

From its work in this field PATH has developed guidelines for the production of instructional material for non-literate communities:

• Keep pictures as simple as possible. A crowded scene will divert attention from the message being conveyed.

• Though excessive detail interferes with understanding of the message, comprehension may also be reduced by over-simplication.

• Content must be limited to the most important messages. Only 8-12 major points can be effectively covered in a single pamphlet.

• Each picture and each page should have a single, sharp meaning.

• Visual symbols should be as realistic as possible.

• Pictures arc more likely to be successful if faces, clothing and buildings are based on v. hat is familiar locally.

• Use only familiar objects and symbols to portray a message. For example, many different kinds of light sources could be used to signify night (a light bulb, a kerosene lamp, a candle, a metal lamp). The symbol chosen must be tested with people from the intended audience to ensure it is appropriate.

• Material produced for national distribution may not he equally appropriate for all regions of the country.

• The ideal length for a pamphlet is usually 16 pages This often corresponds both to the space necessary to depict 8-12 major messages and to the attention range most readers. It is also usually the most economical format for high-speed printing presses.

• Initial print runs should be small, even if the cost per copy is higher, so that changes can be made following funkier evaluation and before mass distribution.

• Understanding of the picture is greater when a person's whole body, rather than just part d it, it illustrated.

• If the material will be printed in more than one colour or will include simple words, these choices should be pretested in the same tray the illustrations are tested. Remember that certain colours have different meanings in different societies.

• Using colour at all also adds to the production cost, an important point to remember.

• Non-literate people do not necessarily look at pictures in the order intended. As messages arc being tested, it is useful to ask several groups of people to arrange them into the sequence that seems most logical to them.

• The design and testing of simple materials arc more complicated and require much more time than the development of written materials. Simple does not mean easy.

• The intended audiences should always have the final say about the content, illustrations, and sequences used.

• Not all kinds of technical informal ion can be transferred through illustrations. Pictures can probably be used to teach someone how to change a motorcycle tyre, but it is doubtful they can be used to teach a person to drive that motorcycle.

Explaining ORT:

"Rehydration Salts." A pamphlet prepared for use in the Mexican ORT program explains to nonliterate people how to care for a child with diarrhea. The instructions emphasize: carefully mixing OR solution from packets (pages 5 and 9), giving one cup of solution for each diarrheal stool (page 6), continuing to give OR solution, even at night (pages 7,12, and 13), continuing feedings, particularly breast-feeding (pages 11, 13, and 14), and avoiding all other treatments, including antibiotics and kaolin mixtures (page 8). For literate users, captions appear on the last page (not shown). This pamphlet was prepared by PIACT de Mexico.

Las Sales Rehidratantes
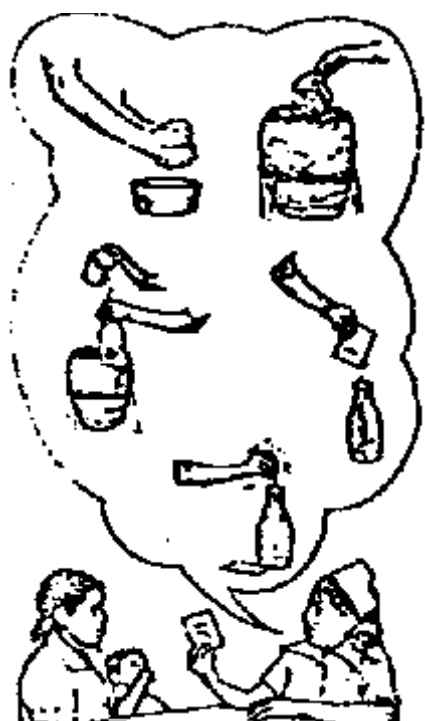
Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 9
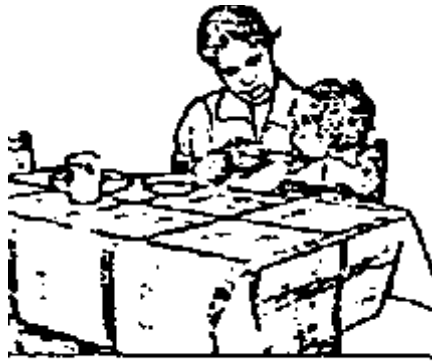
Figure 10

Figure 11
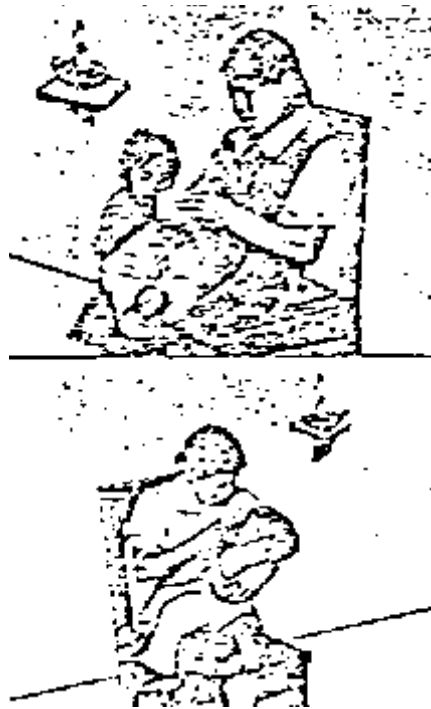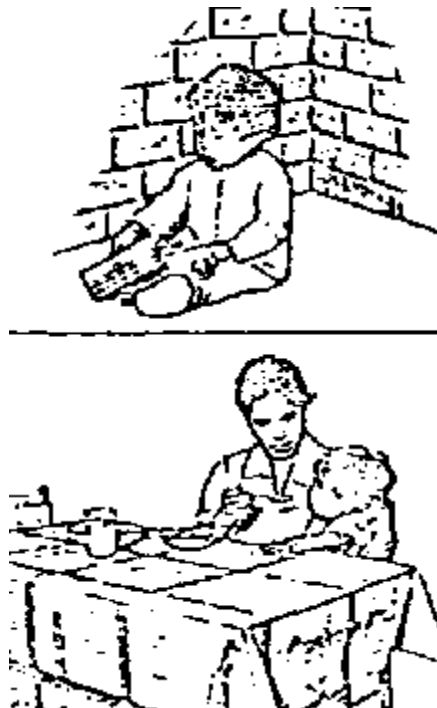
Figure 12

Figure 13

Figure 14

Figure 15

(From: Diarrhea Dialogue. Issue 14, August 1983)

Trainer Attachment 25G: The process 0f writing materials

We suggest the following process of writing the teaching materials. Under each step we give an example of what might be involved in writing the materials for the Clear Campaign

Remind yourself of the overall aims of the campaign

The overall elm of the Clean Campaign is to improve the environmental hygiene of the nation.

Break this down into specific objectives

Specifically this means encouraging

- the use of safe water
- latrines
- hygienic disposal of rubbish
- clean handling of food

Allocate these objectives among the units

You might divide the objectives in this way

unit 1   introduction and overview

units 2-3 safe water

units 4-5 latrines

units 6-7 rubbish disposal

units 8-9 food handling

unit 10 review of the campaign and guidelines for action

For each study unit decide on the learning objectives and the behavioural objectives

eg. For the hygienic disposal of rubbish we want our audience

a) to learn that rubbish is unhealthy and dangerous

b) to change their behaviour so that they start and continue to use a safe and effective system of rubbish desposal.

Frame discussion questions that will encourage RLGs to discuss

a) what they have learned
b) the problems they face in their area
c) what action they will take.

Such questions would be
Q1 What is wrong with leaving rubbish around?
Q2 In what ways is rubbish seen as being a problem In your village?
Q3 If it is a problem what can you do to clear up the rubbish?
Q4 What can you your neighbours and leaders do to atop rubbish accumulating in the future?

Write the study guide unit to provide the necessary information and ideas for the RLGs to discuss these questions

This part of the study guide might include

a) a description of rubbish
b) a description of the health hazards from rubbish

- It breeds germs
- It attracts flies who carry the germs
- It is dangerous to children

c) a description of some methods of disposing of rubbish both communally and individually

d) some people with whom to discuss the hazards of rubbish and what to do about it

e) how to get help in developing a rubbish disposal system

At the and of this chapter is given a first draft of what a study guide unit on rubbish might look like..

Decide what three or four Ideas you want to reinforce using the flip chart

Search for suitable photographs or commission a photographer or illustrator to produce them.

For example you may decide that for this unit you need pictures showing

a) rubbish scattered over a village
b) children playing in rubbish
c) a communal rubbish pit and collection system
d) an individual family's rubbish pit.

Decide what the major points of the radio drama will be

Brief the actors on these and discuss with them how to dramatise these points.

The drama could have these incidents

a) a screaming child who has cut her hand on a rusty can
b) her mother takes her to the health post
c) the health educator dresses the cut hand
d) the number of children hurt this way and the other health hazards of rubbish
e) the mother and health educator discuss what can be done about the problem and go off to see their village leaders as a first step.

Write the narration to follow the drama

This could

a) review the main points of the drama
b) discuss the health hazards of rubbish with a doctor
c) suggest things that can be done to deal with rubbish
d) suggest that RLGs take action on cleaning up the village.

Write the rest of the radio programme

a) the introduction to the programme
b) the review of previous programmes
c) the introduction to the drama
d) the description of the flip chart
e) the "signing off" with a brief reminder to the RLG leaders of what they should do next.

Record the radio programme - It you don't know how to do this, there are good broadcasters everywhere. Ask for their help.

Design the report form

An example of report forms that we have used can be found in Appendix 3.

(From: Crowley, David Etherington, Alan, Kidd, Ross, Mass Media manual; <u>How to Run a Radio Learning Campaign</u>. 1978, p. 52-54)

Trainer Attachment 25H: Radio programme planning guide

A. <u>PROGRAMME TYPES</u>

1 ENTERTAINMENT
2 NEWS
3 INSTRUCTIONAL/INFORMATIONAL

B. <u>INSTRUCTIONAL/INFORMATIONAL PROGRAMME TYPES</u>

1 EXPOSURE AND INFORMATION - Audience will hear something new
2 SKILL TEACHING - Audience will respond with new behavior
3 SUPPORT - Audience will be reinforced to continue present behavior

C. <u>CHARACTERISTICS OF EFFECTIVE INSTRUCTIONAL PROGRAMMES</u>

1 GOOD DESIGN - Purpose, objectives ant message will be strong and clear

2 GOOD SCRIPT - The message will be presented in a suitable format that is clearly scripted in appropriate language.

3 GOOD PRODUCTION - The finished programme will be clearly and clearly produced to give it the best chance of reaching the audience.

<u>**MAKING A START**</u>

1. State the problem, issue or subject you wish to present in the programme:

2. Does this content suggest that your programme should be:

a. an Exposure and Information programme ____
b. a Skill Teaching programme ____
c. a Support programme ____

3. If you ticked 2a, list the particular information you want your audience to receive.

If you ticket 2b, state the particular behavior you would like your audience to change.

If you ticked 2c, list the particular behaviour you want your programme to support.

4. List the particular information you will need to include in your programme.

5. List the authorities to whom you could refer to ensure the accuracy of your programme content.

6. Has this same message been delivered to your audience previously?

By what medium? _____
With what result? _____

SELECTING THE MEDIUM

1. What are the special characteristics of radio that make it different from any other medium?

2. What are the advantages of radio as an instructional medium?

3. What are the disadvantages of ratio as an instructional medium?

4. Why are you considering radio as a medium for your message?

5. Do you think radio can carry these messages successfully alone, or will you need to use another medium (or media) as well? Discuss and decide on what else you will need.

6. Do you plan to use any follow-up activities after the programme? If so, what will these bet

CHECKING SPECIAL CONCERNS

1. Are there any dangers if the audience is misinformed or if they mix-apply the information?

2. Is the programme asking the ambience to make use of resource. they do not have ant cannot obtain?

3. Will there be immediate tangible or visible results if the audience follows the programme advice? Or should they be informed that things may not change or appear to change for some time?

4. Will the application of the programme principles arouse criticism or even fear from neighbours?

5. Is there a particular time restriction on this information? Must it be given at a particular time of the day, the week, the year?

6. Are there particular financial or logistic restrictions on this programme production?

(For example toes it require a lot of travel when there is neither money nor a vehicle available for travel?) (Does it require the presence of certain authorities who are available only at specific times?)

CHOOSING A FORMAT

In the light of all that you now know about your audience and your message, it is time to select your medium. What will be the best format for the presentation of your particular message to your particular audience?

Some Possible Formats

Speech
Interview
Actuality
Panel discussion
Drama
Magazine
News
Spot (Bard sell)
Feature
Lesson
Quiz
Question and answer
Request

In choosing the format for your programme you should take into account the following (as well as everything so far discussed):

Length of program
Availability of "talent" (Writers, actors, musicians, technicians)
Amount of time available for preparation
Suitability of medium (format) to message (subject matter)

FORMAT CHOSEN FOR THIS PROGRAMME:

RADIO PROJECT PLAN

DESIGNING THE PROGRAMME

PURPOSE
To demonstrate_____

OBJECTIVES
Audience will_____

(From: The Office of Education; National Seminar on Development Communications; June 7-19, 1982.)

Session 26: Adapting and pretesting techniques and materials

Handout 26A: Visual aids: Do they help or hinder?
Handout 26B: Pretest report form

Trainer Attachment 26A: Tracing techniques to adapt visual aids
Trainer Attachment 26B: Role play on pretesting pictures

TOTAL TIME: 4 hours

OVERVIEW

Often the visual aids and other health education materials needed for a particular health education session are not available, or those available are not appropriate for the learners. Using the simple tracing techniques practiced in this session, participants can adapt visual aids to fit local needs. Similarly words can be simplified or translated into local language. After identifying or developing health education materials it is important to try them out with people similar to the target group for whom the session is planned. This pretest enables the health educator to make certain that the materials convey the intended message and attract the interest of the learners. It also provides another way to learn more about the community. In this session, participants adapt visual aids (or radio spots, pamphlets etc., developed in Session 25) and pretest them with members of the local community.

OBJECTIVES

• To use tracing and sketching techniques to adapt a visual aid for use in the local community. (Steps 1-3)

• To pretest a visual aid and other types of mass media materials with members of the target audience. (Steps 4-6)

RESOURCES

- Teaching and Learning With Visual Aids. pp. 191-197 and 223-254.
- Audiovisual/Communication Teaching Aids, Resource Packet (Peace Corps)
- Bridging the Gap
- Breast Feeding and Weaning Resource Packet (Peace Corps)
- Visual Aids on Sanitation for Africa (Peace Corps)
- Helping Health Workers Learn. Chapter 12

Handouts:

- 26A Visual Aids: Do They Help or Hinder?
- 26B Pretest Report Form

Trainer Attachments:

- 26A Tracing Techniques to Adapt Visual Aids
- 26B Role Play on Pretesting Pictures

MATERIALS

Newsprint and markers, pictures to adapt, paper for drawing, thin paper for tracing, pencils, paint or crayons, props for the role play.

PROCEDURE

Prior to the session, ask someone to prepare a demonstration of tracing and sketching techniques for adapting visual aids using Trainer Attachment 26A (Tracing Techniques to Adapt Visual Aids). If some participants are interested in drawing, try to organize peer teaching by one of the participants with drawing skills. Also identify pictures that participants can adapt in this session. <u>Breastfeeding and Weaning (Resource Packet P 12)</u> or <u>Visual Aids on Sanitation for Africa</u> include many pictures that could be used in this activity and these books are available through ICE.

Ask two or three people to prepare to do a ten-minute pretesting role play. Work with them as they practice the interview techniques described in Handout 26A (Visual Aids: Do They Help or Hinder?) and develop the roles described in Trainer Attachment 26B (Role Play on Pretesting Pictures), to make certain that the role play will demonstrate effective interviewing. Also, give them Handout 26B (Pretest Report Form) and have them use this in their role play.

Invite several people from the local community (or local people who work in the training center) to visit the session for 30 minutes during step 5, to give their opinions about the meaning and effect of the messages being presented. Also try to arrange for separate rooms to conduct the pretest interviews, so that the groups do not distract each other.

If you chose to include Session 25 (Health Education Through Mass Media) in the training course, include some time to discuss the kinds of adaptations to consider when working with other types of media (TV., radio, pamphlets). During the time alloted to pretesting, the participants should be encouraged to also pretest the materials they developed in Session 25.

Step 1 (35 min)
Demonstration on Using Tracing to Adapt Visual Aids

Ask the preselected person to demonstrate how to use tracing to adapt visual aids. Have the demonstrator assign the group a tracing exercise similar to those in Trainer Attachment 26A (Tracing Techniques to Adapt Visual Aids) so that participants have a chance to practice the technique after observing it.

Trainer Note

An effective way to introduce the tracing demonstration is to show the group a picture that you traced, and claim that you drew the picture in five minutes. When they ask how you became such a great artist, you explain that you "cheated", that is, you traced the picture from a photograph and modified it slightly.

When demonstrating tracing, it is important to note that you have to decide how much detail to copy from the original picture as is explained in Trainer Attachment 26A (Tracing Techniques to Adapt Visual Aids).

People usually vary a great deal in how quickly they trace and sketch. Have additional exercises for those who finish early. For example, they can try out other drawing

techniques shown in <u>Helping Health Workers Learn</u>, Chapter 12 or re-do the drawings they developed in Session 25 (Health Education Through Mass Media).

Step 2 (15 min)
Discussion on When to Adapt Visual Aids

Distribute copies of the visual aids that you have selected for participants to adapt. Ask each person to key the visual aid for a specific health education activity. Discuss some of the key elements they should adapt. Suggest that participants refer to Handout 24D (Using Pictures to Communicate Effectively) and use the information they have gathered about the community for additional ideas about what to adapt. Explain that they will be trying out the visual aids with some people from the local community to see how well it communicates the intended message.

Trainer Note

If possible show some examples of pictures that have been adapted and describe why and how they were adapted. The example below was taken from a counseling book developed for use in the United States and adapted for use in West Africa by changing the facial features and clothing.

Image
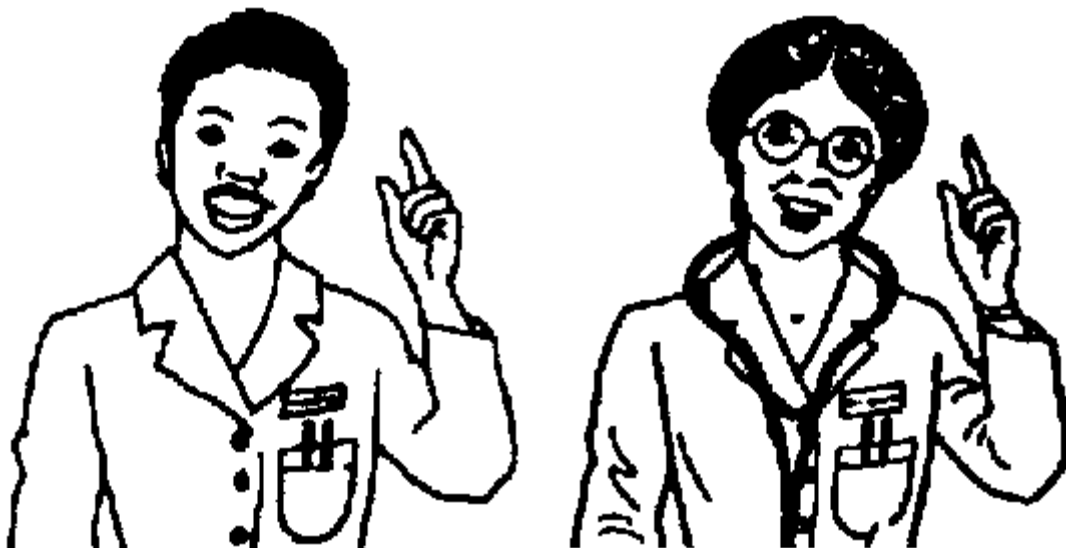
Some of the points that should come out of the discussion include:

- the importance of knowing about and working with the types of people for whom messages are intended

- changing clothing, hairstyle, facial features, gestures to resemble local people

- changing objects, houses, scenery to look like the local area

- changing or omitting words and symbols that are unfamiliar

- avoiding colors that have negative or religious meaning or are unrealistic

- simplifying pictures that are too technical or show too much information at one time.

If participants have developed messages or spot announcements for radio, tv, or pamphlets etc., discuss these points:

- changes to give the material local "flavor" (using proverbs, characters from folk roles, activities shown or talked about at health centers.)

- changes to adjust material to the level of the audience (simplifying words, sentence structure or using concrete examples that relate to the experience of the learners.)

- changes to increase prior knowledge or stimulate learner participation.

Step 3 (60 min)
Practice Adapting Visual Aids

Tell participants to begin their adaptations by roughly sketching or making notes on the changes that they want to make in the visual aid before they begin tracing and sketching the final version. Give them time to work on the assignment. Move around the room and assist anyone who is having difficulty.

Step 4 (25 min)
Pretesting Role Play

Ask the three participants to present the pretesting role play that they prepared before the session. Ask participants to carefully watch how the role players conduct the pretest so that they will be able to pretest their own visual aids later in the session. After the completion of the role play, lead a discussion on how to pretest materials. Ask participants to develop a list of steps to follow. Ask someone to write the steps on newsprint and suggest that everyone copy the list for use later in the session.

Trainer Note

If possible, do the demonstration of pretesting with community members rather than role playing it with the group. Describe some actual cases of pretesting and its results such as the examples described in Handout 26A (Visual Aids: Do They Help or Hinder?). Ask participants to recall the techniques they practiced in Session 10 (Methods for Learning About the Community).

You can use Trainer Attachment Handout 26A (Visual Aids: Do They Help or Hinder?) as a guide for the discussion. Some of the important points that should appear on the list include:

- Greet the person or persons appropriately.

- Introduce yourself and explain that you are trying out new materials.

- Make the person feel at ease in your company, ask about the family, ask about village matters, crops or the weather, etc.

- Ask open questions about the picture such as "What is happening in this picture?" "Is there anything that you do not like about this picture?"

- Encourage people to talk. Assure them that this is not a test. There is no right answer. You want to know what they think about the picture.

- Let people touch the materials if they want to.

- Ask probing questions. If you get vague answers to your questions, phrase the question in a different way

- Work in pairs if possible so that one person can accurately record the responses while the other holds the conversation with the community member.

- Explain that you are recording their answers because you think their opinion is important for improving the picture and you don't want to forget what they have said.

- Stop recording if the person objects or seems to be nervous about it.

- Thank the person for his or her help.

Step 5 (45 min)
Pretesting Materials with Community Members

Distribute Handout 26B (Pretest Report Form) and give participants a chance to look at it, ask questions, and make modifications. Divide the participants into four groups that will work together in pretesting. Give the groups five minutes to select one or two of the visual aid adaptations to use in this activity. Explain that they will be reporting the results of the pretest to the other groups.

Tell them that when doing the pretest, one member of the small group should serve as interviewer and another as recorder, while the others observe. Have the groups pretest the adaptation first, then the original visual aid. Each group should try out these materials with at least two visitors.

Trainer Note

If time allows, arrange to have the participants pretest the visual aid in the community. Ask each group to pretest their poster or their communication techniques with people similar to those for whom it is intended.

If the pretesting takes place in the training center, arrange separate rooms for each of the groups to conduct their interviews or nave them work in different corners of the room so that they do not distract each other.

Spend same time with each of the groups but do not interfere with the interview. Note some good interviewing techniques and interesting outcomes that you can mention during the discussion of the pretests.

After participants have worked with one community visitor for 15 minutes, have them rotate and spend the last 15 minutes interviewing the second visitor.

Remember, if Session 25 (Health Education Through Mass Media) was included in their training, the participants who prepared radio spots, tv announcements, pamphlets, songs or puppet shows should be encouraged to pretest these materials.

When pretesting and adapting their materials, they should keep in mind the target audience (i.e., individuals, general public etc.) for whom their materials or messages were intended.

Step 6 (40 min)
Discussion of Pretesting Experience

Ask each group to give a brief report on what they learned from the pretesting interview. Lead a large group discussion of questions such as the following:

- What did you learn about how well the visual aids communicated the intended message?

- What did you learn about how interesting the visual aids were to the community members?

- How did your ideas about what needed to be adapted in the original poster compare with those of community members?

- What else did you learn about the community through conducting the pretest?

- What did you find that was important that you didn't expect from pretesting the poster?

- What other kinds of media, messages and techniques could be pretested in a similar way?

Handout 26A: Visual aids: Do they help or hinder?

In India, not too lone ago, an artist created a beautifully colored set of drawings to encourage women in the local dairy associations to make silage. When the materials were later used with a group of village women, this audience looked at a drawing showing the size of a silage pit. The women were asked. "How many cartloads of green fodder will fill this pit?" Following much discussion, they replied, "Thirty." Then the women were asked if they, or anyone they had heard of, had collected or could collect 30 cartloads of green fodder for silage. They laughed and said, "Of course not!" This set of visuals was not effective because the technology it encouraged was not appropriate to the environment where it was being promoted.

Many things prevent educational materials from being appropriate. Perhaps the people who develop the materials are not working at the community level. Or maybe they are not working closely with others who are working there. They may not be familiar with the way their intended audience lives. thinks and speaks. Therefore, these developers do not know how to prepare the material, so that they will be understood by the people they are trying to reach.

They may produce drawings or photographs showing urban people. even though the target audience is made up of rural people. The language used with the visual may be too sophisticated or too technical for the audience to understand.

It is important that we find out if a visual aid does what its name suggests: aids the audience in learning. Or does it actually hinder learning? For example, in the situation with the visuals for silage, not only was the idea inappropriate, but the visuals confused the audience. In one drawing. the person shown was as tall as the silage pit was wide. But in a drawing of the same silage pit a few pictures later, this person was like a small child in comparison to the size of the silage pit.

Another example of confusion and mistaken meaning comes from Southeast Asia. A poster set about oral hygiene showed only women and children. Therefore, some of the audience concluded that men do not get cavities!

Testing is A Necessary Step

How can we insure that our visual materials will be effective? No matter how sensitive we are to the needs of our audience. or how our audience sees and hears things. we can still make mistakes. That is why testing and evaluation of educational materials is so important.

The examples above show us that preparing effective visuals is not an easy task. The audience may not have the experience to relate to the ideas presented in a visual. If the people who created it are not well acquainted with their viewers. a visual may not be prepared so that the audience can understand it. Some visuals may suggest to a particular audience something far different from what the developers had in mind. Or visual materials simply may leave the viewers confused!

This issue of World Neighbors in Action tells us how we can use simple techniques which will help us to test either materials we have made or materials made by others. Only by learning how to test our materials and making revisions in them will we be sure that the materials we develop are really appropriate.

How Do We Prepare For Testing?

It is important to decide exactly what it is that we want to test before we begin the testing procedure. The materials we test should resemble as closely as possible what we expect the final product to look like. If the finished visual is going to be a series of detailed drawings, we do not want to do our field test wing stick figures. If the visuals are going to be in color, it is probably not advisable to have our test visuals in black and white.

Because we may be using some of the same pictures in the final version of the visual, they should be protected during the testing. If photographs can be reprinted, we do not need to take too many precautions to protect them. However, it is wise to cover our drawings with plastic sheeting. This covering will protect the drawings, but they will still be highly visible.

It is often best to test different things at different times. If we are only testing the appropriateness of an idea, simple drawings may be best. If we know that the idea is appropriate, we may need to use finished an and only test for sequence or language.

Picture
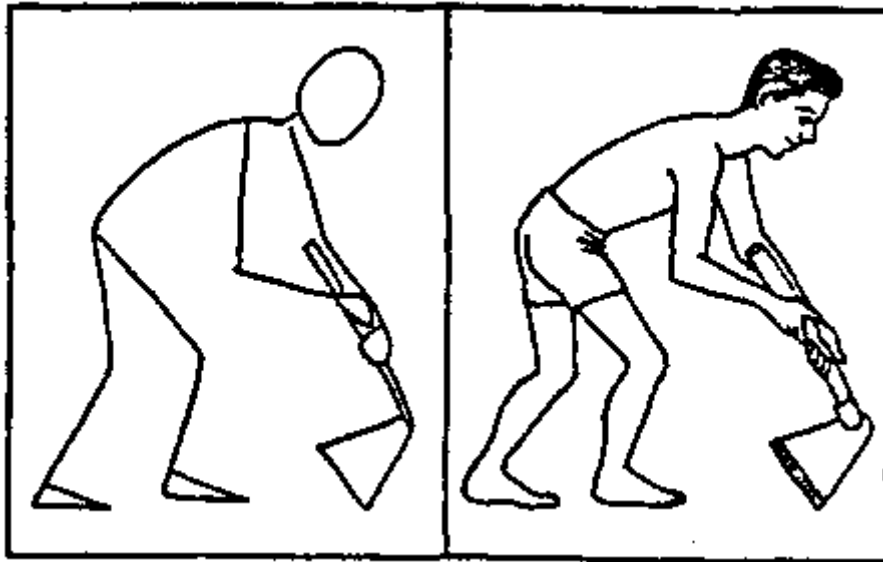
How Do We Choose Our Testing Audience?

Too frequently, our testing is done with the wrong audience. Is not enough to test ideas or materials with a group of associate Our colleagues may have some useful ideas, but they will not at cannot be looking at the materials through the same eyes and with the same thoughts as a villager. If the target audience of the finished visual is to be women, we must not test the materials with groups of men.

We must always bear in mind that the people in our testing audiences are doing us a favor. Their time is valuable, so should arrange for a testing time which will fit their schedule. They should have enough time to look closely at the materials. We must also allow ample time for our audience to respond.

We must be sure that our viewers know how important the opinions are to the testers. It is often helpful to tell them: "The materials which we are testing with you may be useful to other audiences. We need your help in making that decision. If you not tell us what you really think, we may produce materials that will be of no use at all. This wastes not only time, but also money

What Things Are We Testing For?

There are many different things which determine how the people in an audience respond to visual aids and what they understand from these materials. Before testing, it is helpful to make a list of all the things that we should look for. We may not be testing all of these things during the same presentation, but each one should be tested for at some time. You may wish to make additions to the suggested questions which follow.

1. Can the audience understand the pictures?
2. Can the audience understand the language?
3. Is the subject matter socially acceptable?
4. Is the size of the visual aid appropriate?
5. If analogies are used, do they work well?
6 is the presentation so long that it is boring?

Three Methods of Testing

Of the many different ways to test materials, we have found that three methods are most useful. We must always be prepared to ask the audience questions, and we should have some way to record their answers. It is good to have present a person besides the tester who takes notes. of what the audience says.

METHOD ONE

Whether the visuals we are testing are projected or non-projected, a good way to test what the audience actually sees is to show them only one picture at a time. While each picture is being shown, we ask the "What do you see?

We must avoid making remarks which "lead" or influence the audience to see something we want them to see. After all, we want to find out what they see in a particular picture, not what we see. We must not make comments like "That's right" or "That's wrong." Instead, we can thank each person for the idea, then repeat it and ask someone else for an opinion. After all the people who wish to express their ideas have done so, the purpose of this method of testing will be accomplished.

Using this method, we do not say any of the dialogue which would normally accompany the picture. Our purpose in this kind of test is to see if the visuals alone are understood.

METHOD TWO

The second method of testing is to use the pictures and the story together. At the conclusion of presenting the story and the pictures, we ask the audience a series of questions, and we record their responses on paper.

The questions should be "open-ended.- This kind of question asks people to tell what they think about the material, and does not hint at what the answer might be. The audience should be able to answer these questions without saying only "yes" or "not." Some of the questions we might ask are:

1. What is the story about?
2. What did you learn from the story?
3. Which pictures helped you to understand the story? Why were they helpful?
4. How would you change the pictures to make the story easier to understand?

METHOD THREE

One of the most interesting ways to test our visual materials is to ask a small group of audience members to thoroughly examine and discuss some pictures. After discussion of the drawings, the group makes up and tells a story using these pictures. The tester is simply an observer.

Not only does this method of testing show us how the audience tells stories, but it gives us the actual words they will use. After the group members have told us their story, we should ask them if there are additional pictures which would be useful in better telling the story. These suggestions from the testing audience can be valuable when we later revise the material. They can help us to identify the "missing links" which, if omitted, can prevent the target audience from understanding the message of the visual. Very often we find that educational visuals developed in this way are some of our most useful materials.

It will be helpful to try each of the three methods described below. One method may be more useful than another with different materials or different audiences. Sometimes the best way of testing is to combine the different methods. It is a good idea, perhaps even necessary, to test the methods of testing.

Completed Visuals Reflect Results of Testing

If we have done a good job of testing our materials, there will be revisions to make. Sometimes the changes are simple, and sometimes they are complicated. As we gain experience in developing visual aids. we will do a better job of preparing both the original visuals and script. This usually means that testing will show fewer changes have to be made when we produce the completed visual. Let's look at examples from materials developed in programs with which World Neighbors works.

Understandable Pictures

These two drawings are from a flipchart series developed in West Africa. The series is used to help upgrade the skills of traditional birth attendants. At left is the first drawing of a mother with her dead child. It was used to introduce the idea of women who are at risk of losing their next child. But the audience thought the child wrapped in a shroud was a yam! On the right we see the revision. When the shrouded baby was being placed in a coffin the audience understood.

Figure 1b

Socially Acceptable Visuals

In these two photographs, we see a revision which was made because of a social or cultural problem. Note that the little girl is using her left hand to eat her food in the picture on the left. In many areas of the world, eating with the left hand is socially unacceptable because the left hand is associated with latrine practices. For this reason, it was necessary to change the photograph to the way it appears on the right. In this photo, we see the girl eating with her right hand.

Figure 2b

Accurate Transfer of Message

Sometimes a photograph or drawing does not convey the intended message to the target audience. To illustrate the advice that a farmer should spray with pesticides only when he feels well, the photograph of the sick man on the left was used. During field testing in Honduras, the audience of farmers agreed that this precaution was better pictured by a farmer who felt well enough to play with his son. As a result of field testing, the photograph at right was used in the completed visual.

Figure 3b
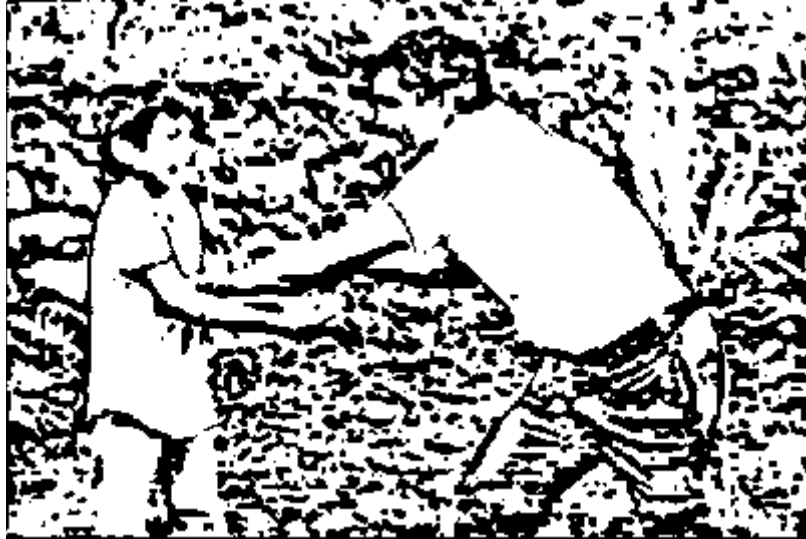
(From: World Neighbors. World Education in Action Newsletter)

Handout 26B: Pretest report form

Project Description

Type of Material   _____
Tested

Health Message   _____

Objective   _____

Intended for Whom   _____

Who was interviewed? (categories should be adapted for intended audience)

Person #	Age	Sex	Education	Ethnic Group
One				
Two				
Three				
Four				

Responses to Questions

What is Happening	What did you learn	How could we	How could we

in this picture?	from hearing hear-in the story?	improve the picture	improve the story
Picture #1			
Picture #2			
Picture #3			

(Adapted from A. Haaland, Pretesting Communication Materials UNICEF, 1984.)

Trainer Attachment 26A: Tracing techniques to adapt visual aids

Many health care trainers know that visual aids can make new information easier to understand. Unfortunately, visual aids which fit the needs of your learners are not always available.

You can use tracing techniques to make visual aids which do not require many materials or any special skills in drawing. Magazines, books, posters, and many other materials contain photographs and drawings which can be used to make visual aids for health training and public health education.

For example, a health worker in a rural clinic may need a poster on child spacing that shows a family with two or three children who are obviously happy and healthy. The only available and suitable pictures show only larger groups of people. By using tracing techniques, the health worker can make the needed poster by combining tracings of individuals from different pictures to create a family group, as shown below.

Picture

There are two activities on tracing: one to practice simple tracing and one to practice transferring a picture using carbon. The skills taught in these two activities will be necessary to do other activities in this unit, so we recommend that You do both of them.

You may want to demonstrate all of the skills before beginning the activities. The skills which need to be demonstrated are:

1. Simple tracing
2. Tracing using a light source
3. Making your own carbon paper
4. Transferring a picture to another piece of paper using the carbon transfer technique
5. Outlining the figures in black and coloring them in, using available coloring materials.

See Unit 5. Demonstrations, for tips on giving a good demonstration.

Share the following information with your participants before beginning the activities.

Before using one of the tracing or transfer techniques that you will learn, decide which pictures to trace and how much detail to copy from those pictures to communicate your message. The amount of detail can range from only an outline of the shape of the picture to a very detailed drawing. shape only simple drawing detailed drawing
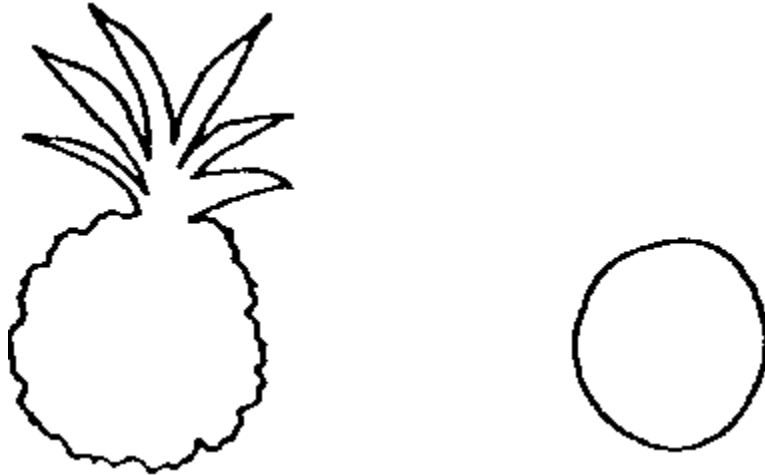
Picture

shape only   simple drawing   detailed drawing

The basic shape of an object can communicate what it is if the object has a distinctive shape and if the group you are teaching is familiar with the object. for example, the round shape of an orange also looks like a ball. More detail is needed for people to be able to tell it is an orange. The basic outline shape of a pineapple can communicate the idea of a pineapple, if the group is familiar with pineapples.

Picture

More detail provides more information about the real object or person the tracing represents. Too much detail can be distracting. The person looking at the picture may pay more attention to the background or details of costumes than to the central subject.

It is important to try out your drawings with the people for whom the drawing is intended. You should choose shapes, simple drawings, or detailed drawings carefully based on the idea you want to show and the group of people you want to teach.

EVALUATION:

After each activity, ask your learners to:

1. Compare their traced drawing with the original picture. Did they trace enough of the person or objects to communicate what it is? Did they copy too many details so that the drawing is cluttered and confusing or possibly distracting?

2. Show the drawing to a few people from the group with which they plan to use it or to people with similar background and interests. Ask them what they see. If these people are confused in any way by the picture, ask them why. Make changes in the picture until it does communicate your message.

TITLE: SIMPLE TRACING TECHNIQUE

1. Choose a picture from a magazine, poster, or some other source, or use the enlarged drawing of the picture below included at the end of this activity.
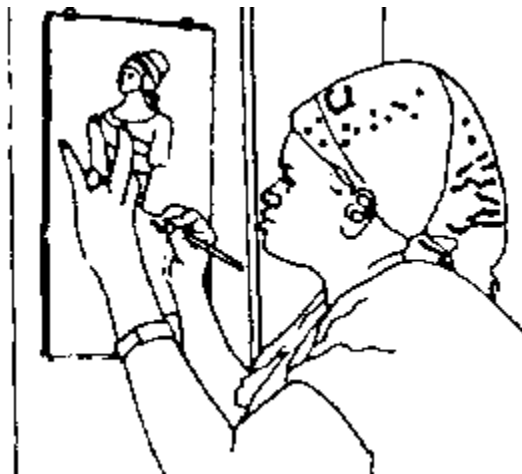
Picture
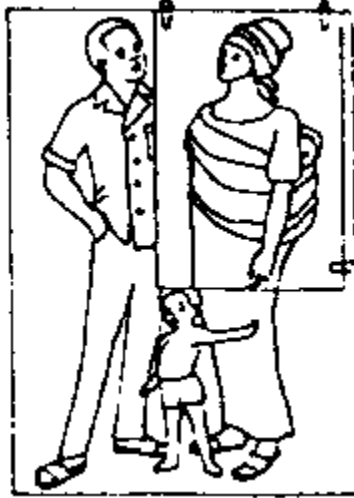
2. Place a piece of thin paper (paper you can see through) over the picture. Use paper clips or pins to hold the 2 pieces together. Do not use tape because it may damage the original picture.

3. If you cannot see the picture through the paper, hold both pieces against a light source such as a window or on an overhead projector.

Picture

4. Using a pencil, carefully trace the parts of the picture you wish to use. Use only as much detail as you think is needed. In the example, you may wish to copy only the part of the picture that shows the woman and baby.

Picture

5. You can finish the drawing on the thin paper by covering your pencil lines with ink, paint, crayon, or colored marking pens. Erase any pencil marks not covered by color or ink. The figures will show up better if you outline them with black and then color inside the black lines.

TITLE: CARBON TRANSFER TECHNIQUE

To use the tracing technique explained in Activity I you need to use thin white paper so that the picture will show through the paper. The thin paper will not last a very long time, so you may want to transfer your tracing to a thicker piece of paper, such as drawing paper. This activity explains how to transfer your tracing from one piece of paper to another.

1. Trace any picture on thin, white paper. You can use the tracing you made for Activity 1.

2. Use a piece of carbon paper or make your own, like this:

Cover the back of your tracing with pencil lead by using the side of a soft-lead pencil. You can use a piece of charcoal from your kitchen fire, if pencils are scarce. You could also rub the pencil lead onto a separate piece of paper and use it like you would use carbon paper.

Picture
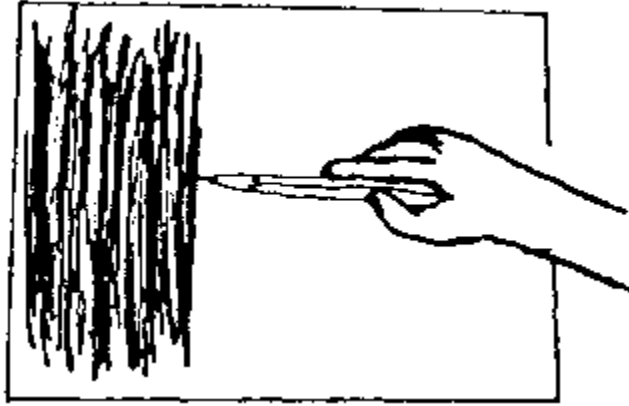
3. Place the paper with carbon (bought or made) on top of a sheet of drawing paper. The carbon side should be touching the drawing paper.

4. If you are using a separate piece of carbon paper, place your tracing on top of the carbon paper.

5. fasten the 2 or 3 pieces of paper together with paper clips or pins.

6. Trace over the lines of the drawing using a soft-lead pencil with a fairly sharp point. As you trace the lines, the pressure of the pencil will transfer the picture onto the drawing paper.

Picture

7. You can complete your drawing by using pen and ink, crayons, paint, or colored markers to color the visual aid. Remember to outline the lines in black and then to color inside the lines.

8. Erase any carbon or pencil line that is not covered.

SKETCHING AND TRACING SKILLS

Sometimes the techniques introduced in the TRACING activities are not enough. Your learners may have found the pictures they need but they need to put them together in a

new way. They may need to change or adapt figures. For example, they may have found a good photograph of a woman, but she is dressed in city clothing and they need a picture of a woman dressed in rural clothing. They may have found a drawing of a happy, smiling child, but they need a picture of a crying child.

These SKETCHING AND TRACING activities show your learners how to make simple changes in pictures so that they can adapt them to their needs. Learners will practice combining tracing skills with some new sketching skills. They will be able to make greater use of the pictures they find if they can adapt them to fit the specific needs.

In this example, the tracing techniques have been used to draw the basic shapes and lines of the people. Small changes have been made to adapt the photograph for use as the poster. These changes were made by sketching. A sketch is a rough drawing that represents the main features of an object, a person, or a scene. By completing these activities, you will be able to combine your skill in tracing with a new skill in sketching to adapt pictures for visual aids.

Drawing 1.

MATERIALS NEEDED FOR ALL ACTIVITIES:

Thin, white paper
Pencil
Eraser
Ruler or straight edge
Tape
Pictures trainer and learners need are listed for each activity

TITLE: ADAPTING CLOTHING

1. Use the "Space Your Family" poster (drawing 1).

2. Trace the poster on thin, white paper, using one of the tracing techniques. (Do not forget to trace the lines that mark the edge or "space" for the poster. A ruler or a straight edge will be helpful.)

3. Make the changes listed below by sketching. To sketch, lightly draw in new lines for the needed changes and erase lines you no longer need. You will probably not make a perfect drawing the first time you try. Just keep sketching and erasing until the changes are made. Remember, as with most skills, practice makes perfect.

<u>Changes to make in the woman:</u>

a. Add a scarf to the woman's head. Think about how a scarf looks. Lightly sketch the lines of the scarf on the woman's head. Erase and draw again until it looks like a scarf. Erase the woman's hair that cannot be seen under the scarf.

b. Change the woman's dress so that it covers her shoulders. Again, lightly sketch the new lines to your tracing to extend the woman's dress over her shoulders.

4. Show your drawing to a friend and ask for suggestions for improving it. Try to make the changes by your friend's suggestions.

There is no one right drawing. You may have added short sleeves or long sleeves. The neckline of the dress may be a round opening or it may have a collar. The scarf may be tied at the neck or on top of the head. It may cover all of the woman's hair or it may leave some hair showing. Here are some examples of how your drawing may look.
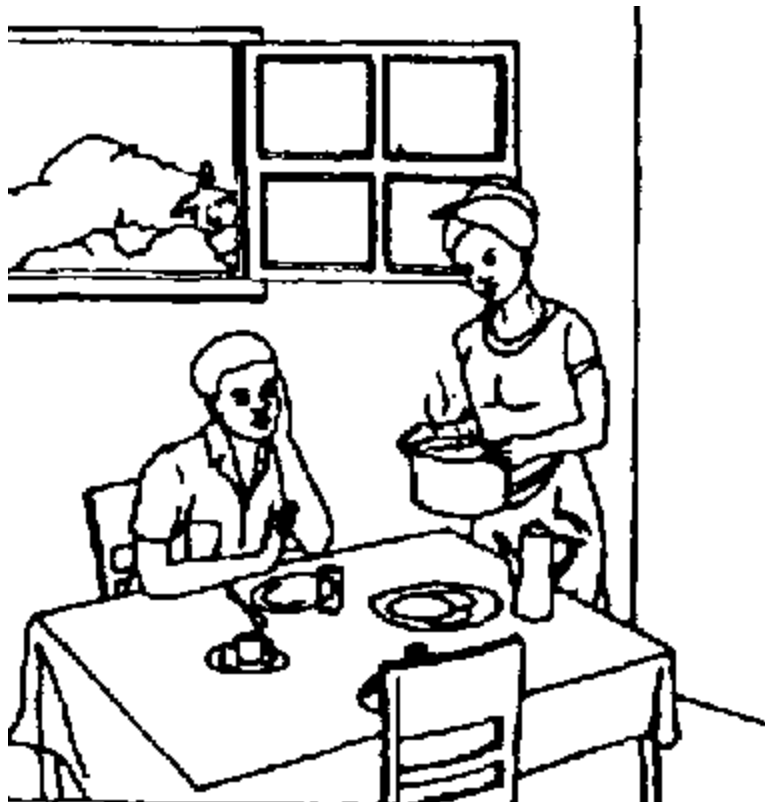
Drawing 2

TITLE: ADAPTING OBJECTS AND HUMAN POSITIONS

1. Use the picture of the family at mealtime. (drawing 3).

Drawing 3

2. Trace as much of the woman as is possible.

3. Change the pot or dish she is holding to a woven basket. The basket can be of any size or shape you want to make it as long as it still fits into the woman's hands. You can use the lines of the pot or dish to begin the shape of the basket. Add lines to make the basket look like it is made of woven grass.

4. Continue the lines of the woman's dress so that it reaches to her feet.

5. Your drawing now shows a woman who is standing and holding a basket.

6. Change the drawing so that the woman is taking a step forward.

7. Ask someone to take a step forward and to hold the position. Look for the answers to these questions:

a. How would her dress look if she is taking a step forward instead of standing still? If she is stepping forward, the leg in front will have a bended knee.

b. How much of the woman's feet will show below the dress?

c. What position will her feet be in if she is taking a step forward? The foot that is stepping forward will be flat on the ground. The heel of the other foot will be slightly off the ground.

8. Lightly sketch new lines onto your tracing to show the woman taking a step. Erase and resketch until you have made the necessary changes. Erase the lines you no longer need.

9. Show your drawing to a friend and ask for suggestions for improving it.

There is no one way to make these changes in the drawing. Here is one possible adaptation. Notice how the shape of the dress is changed to show where the bended knee would be. Notice also the position of the feet.

Drawing 4

TITLE: ADAPTING FACIAL EXPRESSIONS AND FEATURES

INSTRUCTIONS:

1. Use the picture of the couple in drawing 5.

Drawing 5

2. Trace the man and woman.

3. Change the expressions on their faces so that they look worried or unhappy.

4. Ask someone to make a worried or unhappy face. Look for the answers to these questions:

a. what parts of people's faces move when they change their expressions?

b. How do people's mouths look when they are worried or unhappy? Are their lips open or closed? Do the corners of their mouths point up, down, or not move?

c. How do people's eyes look when they are worried or unhappy? Are they wide open? Slightly closed?

d. How do people's eyebrows look? How does the shape of the eyebrows change when someone is worried or unhappy?

e. How do people's foreheads change when they are worried or unhappy?

5. Begin making changes on the pictures. Start with one part of the face. Use the lines which are already in your tracing. for example, start with the eyebrows. Lightly sketch new lines for the eyebrows to show worry or unhappiness. Erase unnecessary lines. Go on to another part of the face and continue the changes.

Your new expressions will look something like this:

Drawing 6

6. Can you identify the 3 facial expressions in drawing 7? Notice the differences in the eyebrows, eyes, and mouths.

Drawing 7

7. <u>Facial features</u> can also be adapted so that the people look more like the ones in your area. You will need to pay special attention to the shapes of the forehead noses, and lips. Look at the examples in drawing 8. Which facial features look most like the people in your area?

Drawing 8
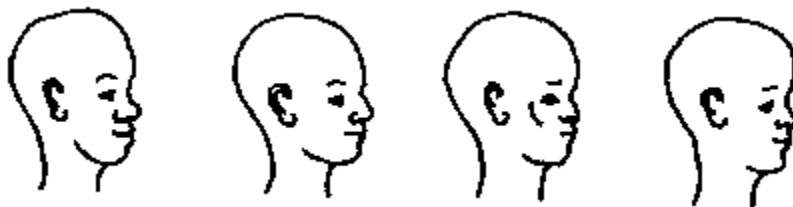
8. Change the facial features of the man in drawing 9 to another type.

Drawing 9

9. Trace the man's face onto a piece of paper.

10. Change his facial features to one of the other types of facial features shown in drawing 8. To do this, you will need to change the shape and length of his forehead and the shape of his nose and mouth.

Your new drawing will look something like one of these

Drawing 10

TITLE: MAKING A COMPLETE VISUAL AID THROUGH ADAPTATIONS

1. Use the full-body tracings you have already made of drawing 5 (the man and woman).

2. Add the little boy in Drawing 11 to the tracing of Drawing 5 so that the child is holding his father's hand.

Drawing 5

Drawing 11

To do this, you must change the direction in which the little boy is facing and change the position of his arm so that his hand will reach his father's. (You could change the father's arm instead of the boy's but that would be more difficult.)

3. <u>Step one</u>: Change the little boy so that he is facing is ether.

a. Trace the drawing of the little boy onto a separate sheet of thin white paper.

b. Turn the tracing over so that the clean side of the paper is facing you.

c. Use either the carbon transfer technique or a window as a light source to make another tracing of the little boy onto another sheet of paper. (See TRACING for how to do the carbon transfer technique and how to use a window as a light source for tracing).

You should now have a tracing of the little boy facing in the direction of his father.

4. Step two: Add the little boy to the drawing of the mother and father.

a. Put the paper on which you have traced the little boy under the paper which has the tracing of the mother and the father.

b. Move the tracing of the little boy around until he is in the correct position to hold his father's hand. Be sure that he is not stepping on his father's foot! The little boy's feet should be at the same level as his father's.

c. Tape the corners of the two pieces of paper to either a table top, a window, or another hard surface. The tape will prevent the tracings from moving out of place.

d. You will see that the little boy's arm is raised too high to meet his father's hand. (See Drawing 12.) You will need to change either the position of the little boy's arm or the position of his father's arm. The little boy's arm will be easier to change because you will have to move it less than the father's arm.

Drawing 12

e. Lightly sketch the new position for the child's arm so that his hand is inside his father's hand. Sketch and erase until you have the child's arm in the correct position.

5. Step three: Sketch the fingers to the father's hand so that it looks like he is holding the child's hand.

You should now have a new picture of a man, woman, and child! It will probably look something like this:

Drawing 13

TITLE: TRACING AND SKETCHING TO CHANGE THE SIZE OF A PICTURE

Sometimes you may find 2 pictures to combine to use in a teaching or training session, but they are not exactly the same size. You will have to make I of the pictures either slightly larger or slightly smaller than the other.

The simplest way to make a picture slightly larger or smaller is to follow the outline of the picture at a larger or smaller size.

1. To make a picture slightly larger, place a piece of thin, white paper over the picture and attach it with paper clips. Decide how much larger you want it to be. (Remember that this technique will only work for pictures that need to be slightly larger.) You can judge the larger size and mark it on the thin, white paper. If you want to be more exact, you can use a ruler or a piece of wood with the distance marked on it.

Picture
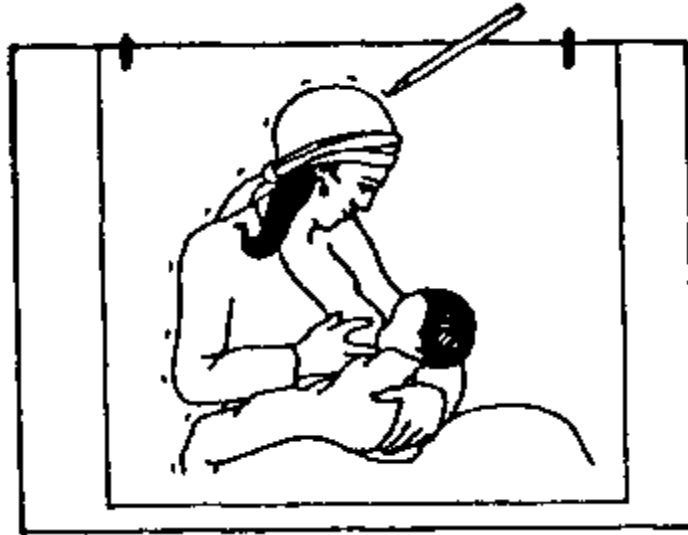
2. At the distance you have decided on, trace <u>outside of</u> the original lines of the picture until you have traced the entire outline.

Picture

3. If your picture has detailed lines within the person or object, such as facial features, you will have to estimate where the lines should be located in relation to the outline you have already drawn. Look carefully at the original picture, estimate where the lines within the figure should go, and mark them on your thin paper.

Picture

4. Compare your larger copy to the original picture. Erase the lines that are incorrectly placed. Sketch new ones until they are correctly placed in the drawing.

Picture

5. <u>To make a picture slightly smaller</u>, follow steps 1-4, but trace <u>inside</u> the outline of the original picture at the distance you decide upon.

Picture

(From: INTRAH: <u>Teaching and Learning With Visual Aids</u>. pp. 224-253, 269-282.)

Trainer Attachment 26B: Role play on pretesting pictures

Photographs and pictures must be pretested and modified to make certain that they communicate the intended message. Pretesting can be fairly simple. You can ask a number of people (similar in interests and background to those that you want to reach) to explain what they think is happening in the picture or photograph. Another way to pretest pictures is through focused group discussion where several people look at the pictures and discuss what's happening in the picture. It is helpful to work in teams so that one person can make notes on the suggestions while the other person asks questions.

First show the picture and ask:

- What is happening in this picture?

Then tell or show the text of the story that goes with the picture and ask:

- What did you learn from hearing or reading the story?

Finally ask:

- How could we improve the picture?
- How could we improve the story?

Pretesting Role Play Instructions The role players should create a scene for the role play based on their own experience. They should also create the characters. The viewer role should be a character similar to someone in their communities with whom they want to communicate through pictures as well as words. The Pretester role should be a PCV or a Counterpart. The Pretester should ask all the questions listed above, while the Recorder completes the pretest form. The role players should follow the pretesting guidelines summarized in the Trainers Note at the end of Step 4.

Session 27: Practicing and evaluating health education session

Handout 27A: Guidelines for practice sessions
Handout 27B: Session plan worksheet
Handout 27C: Evaluation of practice session date
Handout 27D: Session preparation checklist

Trainer Attachment 27A: Sample session plan

TOTAL TIME: 7 hours (4 hours for preparation, 3 hours for presentations)

OVERVIEW

Each health education session in a project must be designed for particular learners and objectives to ensure that the session contributes to overall project objectives. Once designed, it is always helpful to try out a planned activity on a group willing to offer suggestions about what is good about the activity and what could be improved. The presentations provide a means of sharing ideas and approaches that can be used by all the participants when they go to their work sites. Conducting health education activities also gives trainees a sense of accomplishment and a means to assess what they have learned about health education in the past few days. Finally it provides practice in giving constructive criticism. In this session, co-facilitators design and implement a health education session that accomplishes one of the objectives from the project plans they developed earlier in Session 20. Following each practice session the participants evaluate their peers' work.

OBJECTIVES

• To design a 20-minute health education session, working in pairs. (Step 1-5)
• To evaluate the health education session using criteria established during the training course. (Steps 5, 6)

RESOURCES

- Helping Health Workers Learn, Chapter 5, pp. 1-2; Chapter 9, pp. 12-22.
- Other resources as determined by participants.

Handouts:

- 27A Guidelines for Practice Sessions
- 27B Session Plan Worksheet
- 27C Evaluation of Practice Session
- 27D Session Preparation Checklist

Trainer Attachments:

- 27A Sample Session Plan

MATERIALS

As determined by participants.

PROCEDURE

Trainer Note

The session is arranged to allow roughly 4 hours for preparation and 3 hours for conducting the practice sessions. If possible, assign the task (Steps 1-3) a few days before the scheduled presentation time and emphasize the importance of rehearsing beforehand. Ask language and core curriculum trainers to assist participants as resource people.

You may want to enlist the help of a few participants to prepare a list of suggestions for session topics using the problems and projects identified in other sessions. You can use the technical nodules in this manual as a source of technical content and ideas for session

---

topics.

Encourage groups to select different topics so that there will be a variety of activities developed for everyone to try out in their host communities. Also, arrange to have the final health education session plans duplicated so that each trainee can have the full set of sessions.

Re-emphasize the importance of community involvement in designing community learning experiences. For this training, that may be limited to talking with host families or training center housekeepers, cocks, and support staff. For in-service training it is preferable to ask participants to do same preliminary information gathering an health problems, practices and attitudes before they attend the training course.

You may want to invite some community members to attend the presentations to have a more realistic environment. Another alternative is to combine these activities with Session 28 (Community Health Day).

Try to "let go" and give participants as much freedom as possible to set the overall tone and present these activities.

Step 1 (20 min)
Assigning the Task

Explain to the participants that they will be applying what they have learned in this and previous sessions to design and conduct a health education session with the partner with whom they worked to develop a project plan. Tell them that you will give them some worksheets to help them plan and practice for this activity, and then they will have 3 to 4 hours for planning and preparing. Tell them that you and the other trainers who have agreed to help will be available to answer questions and listen to ideas during the planning time. Distribute Handout 27A (Guidelines for Session Preparation) and review each point with the group. Allow time for questions.

Post and discuss a list of ideas for topics for the practice sessions. Also post a sign-up sheet for session times. Ask participants to sign up, listing their topics and names.

Step 2 (20 min)
Discussing How To Prepare for a Session

Distribute and have the group read Handout 27B (Session Plan Worksheet). You may want to give the example from Trainer Attachment 27A (Sample Session Plan) to illustrate what kinds and how much information to include on their worksheet. Allow time for questions and an opportunity to modify the worksheet.

Briefly discuss with the group the importance of planning an "opening" and a "closing" for a session. Ask participants to state the functions of each of these two components and to name some specific examples of session openings and closings they have seen used here in their own training (see the following Trainer Note). Also have participants identify when and how to evaluate what has been accomplished during the health education session.

Distribute Handout 27C (Evaluation of Practice Session). Discuss the evaluation criteria, modify it if necessary, and suggest that participants use these guidelines as they plan and prepare for their sessions, particularly the criteria for effective facilitation.

Distribute Handout 27D (Session Preparation Checklist). Explain that this is one of many ways to plan how to carry out a health education session. Ask participants to share any examples from their experience. Discuss the form and encourage participants to use it to prepare for their own sessions.

Step 3 (3 1/2 hrs)
Planning and Preparation Time

When the group has no further questions, have them break into their work teams and begin planning the practice sessions.

Trainer Note

Regarding the functions of the session opening and design:

- The opening makes people feel comfortable working together as a group with the health educator. It stimulates interest in the session, provides a rationale for the activity and gives participants an opportunity to raise additional concerns and ask questions about the objectives of the session. The opening also links the session to any session that has gone before it.

- The closing briefly summarizes the events of the session, links back to the objectives to see if these were accomplished and wraps up the session with a sense of completion. If the session is part of a series, the closing also links the session to future sessions.

Encourage the use of creative and active evaluation techniques such as those discussed in the pre-assigned reading in Helping Health Workers Learn.

Step 4 (15 min)
Setting up the Format for Practice Sessions

Assemble the group and explain the procedure for the practice sessions:

- Each pair of participants will conduct their 20 minute session according to the schedule posted on the wall.

- After each short session, everyone will quickly fill out an evaluation from (Handout 27C) and the trainer will facilitate a 15 minute evaluation discussion of the session among all participants and staff.

Ask each group to begin their session by briefly reviewing their health education project plan and explaining where their practice session fits into that overall plan. Remind them to explain how they plan to evaluate the session.

Distribute several copies of the evaluation form (Handout 27C) to each participant; each person should have as many copies as there are practice sessions.

Trainer Note

You may want to ask someone to act as moderator for the series of sessions. It is usually best to appoint a timekeeper so that none of the activities run over the time allocated.

Unless the group is small, it will be necessary to schedule two concurrent sessions with at least one trainer observing each session.

Step 5 (2 1/2 hrs)
Facilitating and Evaluating Practice Sessions

Have participants conduct their sessions. After each one, facilitate a 15-minute evaluation of the session. Encourage discussion of ways the session could be adapted for different situations.

Trainer Note

The following is a suggested procedure for the evaluation phase after each session:

- The pair who facilitated the session begin the process with self-evaluations.

- The participants then provide commentary identifying effective and non-effective aspects of the session and giving suggestions for improvement.

- As appropriate, the trainer provides feedback in areas not yet mentioned by participants and gives his or her response to what has already been said.

Step 6 (15 min)
Applying New Ideas to the Field

Ask the group to reflect on the new ideas and information they gained during the practice sessions. Have them briefly discuss how they might use or adapt these ideas for specific opportunities and situations in the field.

Handout 27A: Guidelines for practice sessions

• Choose a content area that is relevant for you and your group, based an your analysis of health problems. The session should contribute to the objectives of the project that you planned.

• The session should be practical; it should reflect a real community situation and offer a model for activities that you can use in the future.

• The session is for "doing" not just talking about what you plan to do. The rest of the group and staff members will be your participants. Hence, we will not "hear" about your designed session, we will experience it as your group.

• Work out a brief activity that you can complete in 20 minutes. (Don't end up rationalizing, "If I'd had more time..."). To give everyone an equal opportunity we will stop your activity when your allotted time is over.

• Prepare a session plan that can be reproduced for distribution to everyone later. Use Handout 23 C (Session Plan Worksheet).

• At the beginning of your session, set the stage by explaining the health education situation for which you designed the session. Tell us how this session will contribute to your larger project objectives.

• Make the activities as creative as possible while keeping in mind that methods and materials must be culturally appropriate.

• Use the handouts and ideas from discussions throughout the training sessions and explore new ways of combining materials and techniques.

• Use your co-participants, trainers and local community people as resources during the planning and preparation time. "Bounce your ideas off others.

Handout 27B: Session plan worksheet

WHO are the learners?

WHAT is the OBJECTIVE of the Session?
WHERE will the session take place? WHEN will it take place?
HOW will you conduct the Session?

Skills/Knowledge attitudes needed	Activities	Time	Materials	Evaluation

Handout 27C: Evaluation of practice session date

Date _____
Facilitator _____
Number and Type of Participant _____
Objectives & Activities _____
Materials used:_____

1. What did the facilitator do? (Check appropriate items)

Set an appropriate climate for learning   _____

Spoke clearly   _____

Moved the session along at a good pace   _____

Listened and asked questions   _____

Guided the activities   _____

Stimulated and encouraged discussion   _____

Had the participants use the materials   _____

Listened and participated in a discussion of problems   _____

Was well organized throughout the session   _____

Used visual aids effectively   _____

Others: _____

2. What was the participation of group members?

Took active role in the session   _____

Answered questions   _____

Made observations   _____

Shared ideas and experiences   _____

Discussed a problem or felt need   _____

Showed enthusiasm   _____

Others: _____

3. How well was the session designed?

Followed the experiential learning model   _____

Had a logical sequence of activities   _____

Included start-up and closure   _____

Included peer learning   _____

Used methods appropriate for learning the content   _____
information

Accomplished objectives   _____

Appropriate choice of visual aids   _____

Others: _____

(Adapted From: <u>Bridging the Gap</u>, p. 90.)

Handout 27D: Session preparation checklist

Type of resource	List of Items	Persons Responsible	Item Prepared
Permission to Hold HE Session			
Place to Hold Session			
Session Facilitators			
Chairs, lights, tables, etc.			
Equipment			
Publicity about the Session			
Supplies			
Visual Aids			
Clean-up			

Trainer Attachment 27A: Sample session plan

Mrs. Malinga is a nurse in charge of a family health clinic in a rural district. She

supervises six traditional birth attendants (TBAs) who work and live in the communities surrounding the clinic. Every two weeks the TBAs walk to the clinic and meet Mrs. Malinga to turn in their records of the mothers they have visited and the clinic referrals they have made. Mrs. Malinga also uses this day for in-service training or discussion sessions with the group of TBAs. By the time the TBAs arrive at the clinic and discuss their visits and referral records with Mrs. Malinga, they only have about 2 hours left for the in-service training sessions. Then they must leave if they want to reach home again before dark.

Over the past few months, the TBAs have helped Mrs. Malinga make up stories and pictures to use during the home visits to teach mothers about infant nutrition in pregnancy, and the prenatal clinic visits. Mrs. Malinga field tested the pictures with the mothers in the clinic and drew and colored the final series of pictures on heavy cards herself. This week, Mrs. Malinga is planning a session for the TBAs on how to use the picture series they have helped develop with the three health stories.

The following is Mrs. Malinga's session plan for this week.

WHO ARE THE LEARNERS? - six traditional birth attendants

WHAT is the OBJECTIVE of the Session? - To effectively use the sets of pictures they have developed as a basis for storytelling with mothers during home visits.

WHERE will the session take place? - in the clinic

WHEN will it take place? - During the regular reporting visit of the TBAs.

HOW will you conduct the session?

Skills/Knowledge Attitudes Needed	Activities	Time	Materials Needed	Evaluation
Objectives for the session	Greeting, looking of pictures at the pictures reviewing the objectives	10 min	sets of pictures on: -infant nutrition -nutrition in pregnancy -ante-natal clinic visits	
Ways to use picture stories to motivate mothers	Discussion, demonstration	15 min	one set of pictures	
How to use pictures in storytelling about	participants practice storytelling in pairs	45 min	all 3 sets of pictures	During session observe skills in practicing the use of the pictures and

health				answering the mother's questions
Application of this skill	Discussion of problems in using storytelling Plans to use storytelling in the community	20 min		After the session
				-count number of mothers who attend the pre natal clinic and antenatal clinic. -count numbers of cases of malnutrition at the clinic.

Session 28: Planning and implementing a health day

TOTAL TIME:

8 hours preparation
7-8 hours implementation
1-2 hours evaluation

OVERVIEW

Designed to occur near the end of training, the Health Day is an activity which gives participants the opportunity to apply their knowledge, attitudes and skills in a manner that actively demonstrates what they have learned during the training program. Using their individual health education plans, and the concepts of health messages, opportunities, techniques and community organization, participants work together to develop and implement a primary health care field day in the local community.

In doing this kind of involved excercise, participants can test out their project planning skills and practice facilitating with "real" community members. The entire training group is exposed to a wealth of creative educational ideas and approaches just before heading out into the field. Additionally, participants and trainers are alerted to areas where more training or back-up information may be needed in the future.

OBJECTIVES

• To plan and implement with your training group a Health Day which includes a series of events that help to educate local people about health. (Steps 1, 2)

• To plan and implement the day-long event such that it incorporates a variety of educational and promotional methods and materials and demonstrates competency in the technical areas of selective primary health care activities. (Steps 1, 2)

• To evaluate the effectiveness of the Health Day and identify ways to strengthen the events, techniques, and materials, for potential use in the future. (Step 3)

RESOURCES

Any resources used in this training program.

Handouts

-28A Guidelines for Preparing the Health Day

MATERIALS

As determined by participants and the training budget.

PROCEDURE

Trainer Note

A special note regarding the Health Day as a training activity: while the time investment is considerable for planning and carrying out the Health Day, the payoff is rich in terms of the opportunities afforded trainees for applying new knowledge and skills. Valuable practice in facilitating health education activities is one of the more obvious benefits of the Health Day. Perhaps more subtle but vitally important is the practice participants have in logistical planning, budgeting, coordination, time management and the list could go on. A major determining factor in the success of this kind of training is the manner in which it is presented to the trainees. If the trainer gives an introduction to the event that is too light-hearted, then participants may plan an end-of-the-training party of sorts. an the other hand, if the trainer underscores the potential for "trying out" what has been learned, then the group is likely to perceive the Health Day as a serious event and a final time to practice skills and reassess their abilities.

Well ahead of the planned date, talk with the participants about the Health Day and explain that they will be in charge of planning, promoting, implementing and evaluating the event. Be sure to cover all points mentioned in Step 1.

Peace Corps Overseas Programming and Training Support Addendum to:

A Training Manual in Combatting Childhood Communicable Diseases, Volume I, 1985 (ICE No. T0039)

Marguerite Joseph, Health Specialist
April, 2010

Attachment A: Technical health training needs assessment
Note: Under Malaria, *chloroquine is no longer the treatment of choice due to drug resistance. The treatment protocol is currently based on Artemisinin-Based Combination Therapies (ACT).*

Handout 2B: Pretest answer sheet
IV. Nutrition
#5. Note: *Weaning foods are recommended as of the age of 6 months. It is no longer recommended that weaning foods be introduced from 4 months of age.*

Handout 5A: Shattuck lecture - Health Care in the Developing World:
Problems of Scarcity and Choice
Note: *As this lecture is based on data and analysis from the 1970s, it is important to recognize that examples provided are likely not to be the current state of affairs in those particular countries. This lecture is thus more useful from a theoretical standpoint, and as general background information for Volunteers interested in understanding these issues.*

Tables 1-5 including Health Related Indicators in Countries with Different Income levels; Regional Variations in Cause Specific Mortality in Brazil; Infant Mortality in Selected Countries; Child Mortality in Belgium; Impact and Cost of Selected Primary Health Care Projects:
Note: *Per the note above, data provided in these tables is outdated (1970s). Volunteers interested in this kind of analysis need to seek other sources of information online.*

Handout 5C: Selective primary health care
Table 1 - Prevalence, Mortality and Morbidity of the Major Infectious Diseases of Africa, Asia and Latin America, 1977-1978; Table 5 - Estimated Annual Costs of Different Systems of Health Intervention.
Note*: Same note as above.*

Handout 6C: Understanding Traditional Medicine
Table 1 - Per capita gross national product (francs); and Table 2 - Numbers of qualified medical workers.
Note: *Same note as above*