

Animation skills

(NOT FOR GUINEA WORM ONLY)

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Preface

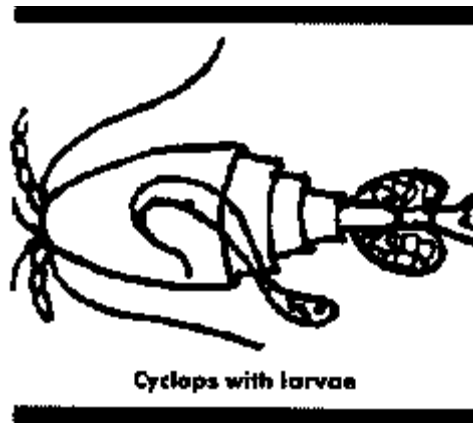
Animation Skills (Not For Guinea Worm Only) is the result of programming initiatives introduced by Peace Corps/Washington from the Office of Training and Program Support (OTAPS). With renewed commitment to the success of the International Program to Eradicate Guinea Worm Disease by the Year 2000, the Peace Corps proposes a programmatic change to their field-level eradication activities, established in 1986 and now (1997) in ten countries in western Africa. The change will include guinea worm eradication instruction to 911 Volunteers living in endemic countries, regardless of their sector specialty; no longer limiting that training to only Health and/or Water Sanitation Volunteers. A cross-sectoral basic guinea worm training for Education, Agriculture, Forestry, or Small Business Volunteers, will allow many more Volunteers in the field to share information with their communities about the life cycle and transmission of guinea worm, and best practices to avoid and eradicate the disease.

The timing of the renewed commitment on the part of the Peace Corps is significant. National guinea worm eradication programs have been losing momentum since international funding, and involvement began to wane after the original 1995 target date for eradication passed and was changed to 2000. Other critical health issues in guinea worm endemic countries are demanding priority status on national health care agendas. While worldwide cases of guinea worm have decreased dramatically in the last decade (from an estimated 3.5 million per year to fewer than 200,000), many critical interventions must continue to fully meet eradication goals. The last cases of guinea worm may be the most difficult to identify, isolate and treat, but as long as even one case remains in a village, entire regions will be at risk of the disease and its tragic physical, economic, and social consequences.

-Peace Corps Volunteers have been an important link in the chain of successful collaborative efforts to eradicate guinea worm. Volunteers remain a direct and consistent force in the communities with the greatest need for continued attention. Volunteers are in an excellent position to work with endemic populations, influencing behavior change that can break the cycle of the disease.

Guinea worm fact sheet

Cyclops with larvae



Guinea worm is one of the oldest identified parasitic diseases that afflicts human beings. It is identified by the long, string-like worm that emerges through a blister on the human body. Infected individuals are often disabled for up to three months by the painful ulcers produced by the worm's emergence and the complications resulting from secondary infections. While so afflicted, individuals are unable to engage in everyday activities, which leads to decreased agricultural and economic productivity for these individuals, their families, and communities. Children are especially vulnerable to the impacts of the disease as they can be kept from school when they or their parents are infected.

The Guinea worm life cycle begins when a larvae, recently released into a water source by a mature female worm, is eaten by a tiny free-swimming invertebrate called a cyclops, or water flea. Humans are infected by drinking water containing the infected cyclops. The larvae are released in the intestine and migrate into the connective tissue, having survived the stomach's gastric juices protected by the cyclops' body. Male and female worms mature and mate about three months after ingestion. The male worm dies after about six months and the female remains in the connective tissue to grow to about 70 cm (about 28 inches). This entire process occurs without signs or symptoms in the infected person.

Approximately one year after the initial infection, the worm has migrated to beneath the skin and is ready to emerge and release its larvae. The worm emits a toxic substance at its end that produces a painful blister from which the worm will eventually emerge. In more than 90 percent of the cases, the worm emerges from the legs or feet, although it can emerge from anywhere. People infected with guinea worm frequently try to relieve the intense burning and itching sensation of the blister by immersing the affected part in water. Contact with water causes the worm to eject its larvae, rupturing the blister. This process is repeated over several days to several weeks as the worm emerges slowly from the human host. Often the water into which the blister is immersed is also the drinking water source for the community. Thus the water source is recontaminated and the guinea worm life cycle is perpetuated.

An individual can have several guinea worms emerging from her or his body simultaneously. The blisters turn into ulcers that become swollen and very painful. Secondary infections often begin in the ulcer, sometimes moving into deep tissue or causing fatal tetanus. Infected ankle or knee joints can lead to permanent crippling. The person afflicted with guinea worm, even in cases uncomplicated by secondary infections, usually finds it very difficult to walk or move about and must abandon her or his usual work routine during the weeks of infection. The social, economic, physical, and psychological effects of this disease are devastating for the individual, family, and community. Yet, because human beings are the only host of the adult organism, it is the one parasitic tropical disease that can be successfully eradicated through improved hygiene.

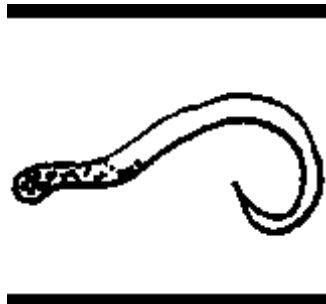
Since there is no curative treatment for or immunity to guinea worm disease, prevention is the only real solution to the problem. The best and most sustainable solution to guinea worm disease is a permanent clean source of drinking water. Unfortunately, the construction of the necessary infrastructure-bore-hole, protected spring, hand-dug well-is often too great an undertaking for a community-given the inherent

financial, technical, and political constraints. The ultimate advantage of a permanent clean water source is that it offers protection from many other waterborne diseases in addition to guinea worm.

Outside of the relatively costly investment in infrastructure, a number of preventative measures can contribute to guinea worm eradication. These include:

- Health education for populations in endemic regions is absolutely critical in bringing about the adoption of behavioral change necessary to break the disease cycle. By mobilizing communities, training health agents to promote preventive behaviors, and developing appropriate health education messages for affected populations, progress towards total eradication can be made. Health education should be an essential step in any preventive strategy.
- Filtering newly collected water through a clean cloth or monofilament nylon filter to remove infected cyclops. from questionable water before drinking is essential. The mesh size of the cloth must be small enough to prevent the passage of cyclops. Filters may eventually develop holes and tears and must be replaced. Comprehensive health education and repeated demonstration of the proper use of filtering cloth are necessary.
- Preventing infected people from entering water sources will prevent recontamination of the water. The community must participate actively to ensure that this strategy is successful. Uninfected family or neighbors must collect water for the infected person; the community can post guards on the water source; the source can be fenced in and posted with signs reminding the population of the importance of protecting their water.
- Chemical treatments can kill cyclops. in the water. A chemical called abate is safe to use if correctly applied by a trained individual. The disadvantage of this method is that repeat applications of the chemical are needed every six weeks. Providing for this application is difficult in many rural endemic areas.

Figure



Comprehensive guinea worm control programs use a combination of the above measures. Effective prevention strategies depend on a clear understanding by everyone in a community of how guinea worm is transmitted and how the cycle can be broken through preventive behaviors. An effective control program therefore must include adequate health education to promote the required behavioral changes.

There are many traditional beliefs and myths about guinea worm disease. They vary from community to community, but some of the more common beliefs include:

- Guinea worm is a loose vein or tendon.
- Guinea worm is inherited.
- Guinea worm is the result of a curse placed on the village because of some wrongdoing.
- Guinea worm is caused by an angry local god.
- Guinea worms emerge when they smell other guinea worms nearby.

- Guinea worm is caused by witchcraft.
- Emerging guinea worms should not be covered because it angers the worm and makes it look for another place to come out.
- Guinea worm is always in the body and comes out when the blood is bad or weak.

User's guide

The who, what, when, where, and why of animation skills

(NOT FOR GUINEA WORM ONLY)

WHO:

The manual was written to be used by Peace Corps trainers who seek to train Peace Corps Volunteers (PCVs) and other extensionists in the use of nonformal education and animation techniques-especially in guinea worm endemic countries. By using the manual, trainers will also instruct their students on guinea worm and its prevention.

The manual is also to be used by Peace Corps Volunteers and extensionists to prepare animations for field activities.

The activities in the manual were designed for a literate group, but with simple adaptations and appropriate use of graphics, most activities can be used with low literacy and nonliterate groups, including children. The manual is developed to be used in West Africa.

WHAT:

Animation Skills (Not For Guinea Worm Only) was written for the ultimate purpose of providing Peace Corps Volunteers from all programming sectors with the ability to use nonformal education techniques. The manual is specifically tailored to instruct rural West Africans on guinea worm disease prevention, but the techniques presented can be adapted to any topic-thus the manual is "Not For Guinea Worm Only."

This manual is also to be the means through which these same Volunteers are trained to employ nonformal education techniques and guinea worm disease prevention. *Animation Skills (Not For Guinea Worm Only)* is therefore an important resource to be used in Peace Corps pre-service and in-service trainings taking place in guinea worm endemic countries.

The manual is the result of three months of visits to five endemic countries in West Africa. During the visit, Peace Corps Staff met with more than 200 Volunteers from all program sectors and many of their Host-Country counterparts to establish priority needs and concerns for the cross sectoral training materials that would be developed for the manual. The materials were then field-tested by Volunteers in two countries.

WHEN:

Animation Skills (Not For Guinea Worm Only) is designed primarily as a tool for Peace Corps pre-service and in-service training but also is intended for use by Peace Corps Volunteers (PCVs) in their field work.

In the field, this manual can be used to plan activities related to guinea worm eradication or any other topic-anytime a participatory learning/teaching experience is called for.

WHERE:

Animation Skills (Not For Guinea Worm Only) has been developed for use in all guinea worm endemic countries of West Africa. Research and field testing visits were made to Benin, Burkina Faso, Côte d'Ivoire, Mauritania, and Niger. Each country is rich in ethnic and cultural diversity. With respect for the myriad existing cultural variation, the lesson plans and graphics in this manual were developed for the overall experience and cultures of West Africa. Anyone using materials from this manual should attempt to adapt lesson plans appropriately to the specifics of the region where they live and work.

The activities described in the manual can take place indoors or outdoors, in a formal classroom or under a large tree in the middle of the village. With creativity and flexibility on the part of facilitators, the ideas presented here can be implemented anywhere.

WHY:

Guinea worm disease can be and must be eradicated. *Animation Skills (Not For Guinea Worm Only)* responds directly to the PCV and Peace Corps (PC) training staffs' most frequent request during the research phase of this manual's preparation-the desire and need for more animation skills.

In this manual, two priorities are addressed:

1. Animation skills for Volunteers and field extensionists;
2. Instruction of Volunteers and extensionists working in a variety of programming sectors in guinea worm disease and its prevention.

The wide use of this manual will contribute to more competent Peace Corps Volunteers in the field and will help continue the significant progress made toward total eradication of guinea worm disease in West Africa.

How to use this manual

1. Be creative and flexible.
2. Adapt these ideas and materials to your particular training needs.
3. Respect the knowledge and experience of your audience.
4. Help participants learn through involvement in a process that is participatory, enjoyable, challenging, culturally appropriate, and meaningful to their current situation.
5. Have **FUN!**

About the individual lessons

IMPORTANT NOTE TO TRAINERS OF VOLUNTEERS AND EXTENSIONISTS:

Each individual lesson plan requires that participants have read the guinea worm fact sheet ahead of time. If you are not able to distribute the fact sheet in advance as homework reading, allow enough time for participants to read it before starting the lesson. (You will find a copy of the fact sheet in the front of each individual booklet of this manual as well as a separate pull-out located in the front of this binder that can be easily photocopied as a handout for participants.

Each lesson attempts to teach an animation technique. The purpose, objectives, and procedures are presented in a step-by-step fashion. Incorporated into each individual lesson is an information page (or pages), related to the specific technique, that can be easily photocopied as a handout to participants. For each animation technique, a complete sample lesson is included. All of the sample lessons are written to instruct participants on guinea worm disease. Some lessons cover general information about guinea worm, whereas others emphasize a specific topic such as prevention or transmission. (Refer to the matrix to help you plan particular sessions.) You are strongly urged to implement the guinea worm sample lesson first. However, you will see that the same lesson plan can then easily be adapted to topics in your specific program sector. In fact, the animation technique can often be immediately repeated using the new subject matter during the same training session. In other words, the process used in each lesson is a specific animation technique, and the content of the lesson is information on guinea worm. You can adapt each lesson and use the same animation technique but substitute the guinea worm content with that from another program sector.

Taking it to the people

Animation Skills (Not for Guinea Worm Only) is designed so that lesson plan booklets can be easily removed from the body of the manual and taken to the field. Peace Corps Volunteers and other field extensionists will need to select those lessons applicable to the type of training that they will be doing, the time they have to do it, and the nature of the audience. To plan for a field training intervention, especially on short notice, or if not familiar with the manual, the Volunteer/Extensionist should first decide on the subject matter ("Guinea Worm Factors") that must be conveyed, and the time available to convey it. With this information, simply go to the matrix entitled "Use of Lesson Plans for Guinea Worm Instruction" on page 16 and identify those lesson plans that fit your needs. If you need some details on the lesson plans, go to "An Overview of Individual Lesson Plans" on page 8, and then to the lesson plans themselves. All of the lesson plans are effective in "Training of Trainers" events and all can be adapted readily for field use.... Mix and match and don't forget the "Energizers."

An overview of individual lesson plans

NOTE:

"Guinea Worm Factors" refer to the following: cause, cycle, transmission, prevention, treatment, impact, and misconceptions. See matrix entitled: "Use of Lesson Plans for Guinea Worm Instruction"

BOOKLET 1: ENERGIZERS

This booklet offers a collection of ten exercises that can be used to energize training participants during inevitable lag times experienced in training programs. For each generic energizer, there is an equivalent offered that addresses guinea worm disease. Guinea worm disease factors emphasized will vary with the activity. Exercises take no more than five minutes each.

BOOKLET 2: CASE STUDY

This lesson plan combines instruction on the use of case study as a technique for problem solving, while examining gender considerations important to development projects. The lesson also addresses cross-cultural issues and the need for good communication skills. Its coverage of guinea worm disease factors is comprehensive. The guinea worm graphics can easily be integrated during programmed discussion of the case. Small group work is required. Approximate time needed is 2 hours.

BOOKLET 3: PROVERBS

This lesson plan offers Trainees an enjoyable opportunity to learn and appreciate local proverbs for use in their work as Peace Corps Volunteers. It provides a list of more than 30 well-known proverbs to use verbatim or as a guide to identifying their area-specific equivalent. It is an excellent activity for development of cross-culture and communication skills. The lesson's coverage of guinea worm factors is comprehensive. Smallgroup work is required. Participation of host-country nationals is strongly encouraged to help adapt the materials. Approximate time needed is one hour and 15 minutes.

BOOKLET 4: TWO PILE SORT

This lesson plan focuses on skills necessary to clarify and understand a problem situation by categorizing its elements. It is an excellent activity for use with nonliterate or mixed literacy groups. Clarification of a problem is accomplished by presenting and discussing a series of graphic illustrations then sorting them into appropriate groupings. The entire set of guinea worm graphics is used in this lesson, providing comprehensive coverage of guinea worm disease and its prevention. The activity also provides insight into gender issues and necessary communication skills. Work is done in the large group format. Approximate time needed is 40 minutes.

BOOKLET 5: STORYTELLING

This lesson offers instruction and practice in the use of storytelling as an animation technique. It provides Trainees the opportunity to develop their own stories that could be shared and used later in their field work. A sample story is provided that focuses on the causes, transmission, and prevention of guinea worm disease. Cross-cultural concerns, problem solving, and communication skills are also addressed. Use of the guinea worm graphics is encouraged to enhance the message and enjoyment of the stories. Approximate time needed is two hours and 30 minutes. However, this lesson can easily be divided into two concurrent training sessions if necessary.

BOOKLET 6: GAMES

This lesson plan offers an opportunity for participation by all Trainees in the learning and practice of games as an effective teaching tool. Advance preparation of game boards is required for one of the exercises. Coverage of guinea worm factors is comprehensive. Communication skills and knowledge of the local culture are also dealt with in this lesson. Guinea worm graphics can be easily integrated into the activities. Work is done in the large group format. Approximate time needed is one hour.

BOOKLET 7: CRITICAL INCIDENT

This lesson will provide insight into the role and appropriate behavior of the PCV in her or his village community. It addresses cross-cultural issues, community entry, and the importance of communication skills. The exercise encourages expression of opinions and feelings concerning how participants might handle a situation similar to that presented in the sample critical incident. Guinea worm factors emphasized in the sample are the life cycle, prevention, treatment, and misconceptions. Guinea worm graphics can be easily integrated into programmed discussion time. Small group work is required. It is recommended that PCVs using this lesson in the field be comfortable with both their language skills and with the community with whom they will be working. Approximate time needed is one hour and 30 minutes.

BOOKLET 8: DEMONSTRATION

With this lesson, participants will learn proper demonstration procedures and will be provided an opportunity to practice demonstration skills in front of an audience. The demonstration presented in the sample involves the correct procedure for filtering water infested with guinea worm. Specific guinea worm factors addressed include cause, life cycle, and prevention of guinea worm. Communication skills and cultural factors are confronted in the demonstration procedure. Preparation and practice time is required in advance of this lesson. Work is done in the large group format. This animation technique is particularly useful when language barriers exist between the trainer and trainees. Approximate time needed is 40 minutes.

BOOKLET # 9: FISHBOWL

This lesson is about **communication**. It illustrates the importance of good communication skills for Volunteers working in an unfamiliar culture with limited language proficiency. It is more suited for training of trainer activities than village-based training, but it can be adapted for community problem-solving activities. Through the structured observation provided by the fishbowl technique, Trainees will discuss issues related to their role as development workers such as cultural barriers, and the need to develop good working relationships with counterparts. In this lesson, a simple role play is used as the activity inside the fishbowl, but variations on the activity are easily incorporated. Guinea worm disease factors focus on cause and the life cycle. Work is done in the large group format with brief small group work included. Take a look at the "Communication Skills" section in the User's Guide before implementing the technique. Approximate time needed is one hour and 30 minutes.

BOOKLET 10: ROLE PLAY/DRAMA

With this lesson, Trainees will learn and practice important elements of a successful role play. They will be introduced to the many variations of this popular training technique. The exercise will provide insight into the need for sensitivity in a cross-cultural environment and the appropriate role of a Volunteer in the community. Coverage of guinea worm disease factors is comprehensive. Graphics can be used during discussion and/or presentation of the role play. It is recommended that the role play booklet be used later in a training when participants are more at ease with one another. Work is done in the large group format. Approximate time needed is one hour.

Communication skills

(BASIC TO ALL TRAINING ENDEAVORS)

Every day of our lives we try to share ideas, feelings, and information with other people. This is what we call communication. It's a part of any relationship between two people. A good relationship can't exist without some sort of sharing of ideas. Talking is the most common way of communicating, but there are many other ways to share information, such as writing, body language, drawing, singing, dancing, and so on. Communication, of course, is not a one-way path. There is a sender of information and a receiver of that information. When the sender communicates clearly and appropriately and the receiver hears and understands, ideas are shared. That is when communication really happens. The basic philosophy of the Peace Corps is to help people help themselves. Is it possible to work effectively with people without really communicating with them? In fact, many of the techniques you will use in your work as Volunteers in the field are essentially methods of communication. Your skills in this area will be essential to your effectiveness and success with the communities you find yourself working in.

The action of sending a message, whether oral, written or otherwise, does not automatically result in communication. There are many common breakdowns in our daily communication efforts that cause misunderstanding, confusion, and sometimes problems in our personal and professional relationships. Coupled now with the language and cultural differences that you will encounter in the communities where you work, the communication skills you possess will be continually challenged.

Let's look at some examples of common difficulties with communication that you may encounter in your field work as a Peace Corps Volunteer:

- Your message may be received but not understood. (It may be in the wrong language or too technical. You may be speaking too fast or mumbling or not connecting with your audience.)
- Your message may reach only a portion of the audience. (There may be different learning styles and/or differing needs of the illiterate vs. literate audience.)

- Your audience may receive the message but misinterpret it. (If they don't see the guinea worm cyclops in the water, it must be safe to drink.)
- The message may be received and understood, but it may conflict with traditional attitudes and beliefs. (Villagers may believe that guinea worm comes from evil spirits to punish a family, or they may prefer the taste of water from a traditional source.)
- The message is received and understood, but the people are unable to act upon it because of poverty or inaccessibility factors. (It may be impossible to install pump or dig for well, or the nearest potable water source is inaccessible.)
- The message is received and understood, but behavior change is temporary because of disappointing results. (It takes a full year to realize the benefits of guinea worm prevention efforts. There are no immediately recognizable results that would encourage behavior change.)

Now let's take a look at some points to remember that will help you in your field efforts:

- Define clearly (for yourself) what message you are trying to relay before presenting to an audience. **Think ahead. Be prepared.** If possible, test your materials first. (Even with just one or two people you can get some valuable feedback on important details.)
- Keep your message **simple, practical, brief, and relevant.**
- Use appropriate language. If you do not speak the language of the village, use a translator, preferably someone you know and have worked with so that you are assured of accurate translation. Speak in simple terms. Do not use technical language. Find the appropriate words to replace the technical terminology. **Speak slowly and loud enough for everyone to hear.**
- Unless you know for sure, do not assume that your audience is literate. Use oral or visual or active methods of communicating. That way, no one is left out or intimidated by your presentation.
- Repetition is very important. Repeat or let someone else repeat the main points of the presentation. Summarize at regular intervals so that the group stays with you and understands the primary message. If possible, arrange subsequent visits to repeat and reinforce those main points.

Three skills needed to promote good communication are:

Speaking Clearly
Listening and Paying Attention
Discussing and Clarifying

Possible questions for guinea worm review

(TO BE WED BY TRAINER TO REVIEW KEY CONCEPTS)

1. How do people catch guinea worm?
2. What does guinea worm look like?
3. Name one of the economic implications of guinea worm. (This may be repeated.)
4. Is guinea worm contagious?
5. How is the guinea worm life cycle perpetuated?

6. Who is susceptible to guinea worm?
7. Describe one method of preventing guinea worm. (This may be repeated.)
8. Can people die from guinea worm?
9. Can you see guinea worm in drinking water?
10. What are the symptoms of guinea worm in the first six months after drinking contaminated water?
11. How long after drinking contaminated water do you know you have guinea worm disease?
12. How do guinea worm larvae get in the water source?
13. Name two adverse social effects of guinea worm.
14. Who is responsible for filtering drinking water?
15. What is a filtering cloth?
16. How do you inspect a filtering cloth?
17. What is the treatment for guinea worm?
18. Are there diagnostic tests to detect guinea worm infection? (No.)
19. Are there drugs that will kill guinea worm before it emerges? (No.)
20. Can a person develop immunity to guinea worm? (No.)
21. How many guinea worms can infect a person at one time?
22. What is the best and most long-lasting solution to guinea worm?
23. What is a disadvantage of chemically treating a water source?
24. Name two ways to protect a water source from guinea worm contamination.
25. How long are guinea worms?
26. What happens if the guinea worm dies in the human host before it emerges?
27. When are people most susceptible to guinea worm?
28. How do you tell guinea worm from other diseases?
29. What are some traditional remedies for guinea worm?
30. Name a common myth about guinea worm.
31. What can Peace Corps Volunteers do to combat guinea worm?
32. What can Peace Corps Volunteers do to avoid getting guinea worm?
33. Who should be targeted for guinea worm education?
34. Is it possible to totally eradicate guinea worm?

About the graphics

Studies have shown that most people take in information faster, interpret it more accurately, and remember it better when it is presented in a visual form. The use of visual aids is especially helpful when there are language limitations between trainer and trainees. Included in this manual is a set of 17 illustrations that portray important messages about guinea worm disease. The graphics should be used with every lesson plan.

The matrix "Use of Guinea Worm Graphics" on page 18 associates certain graphics with particular lesson plans. Similar guinea worm disease factors are represented by several different graphics and others will lend themselves to lively group discussion.

The following summarizes other advantages to using graphic images in training situations:

- Since visual images work in a less direct way than oral or written methods, they can help clarify participants' values, attitudes, and feelings about a situation that otherwise may be difficult to express.
- Using visual images can lower defensive reactions of participants (especially implicated target audiences) because they are able to look at themselves through an unfamiliar image.
- Since participants feel more at ease with the images of someone else as the target, they should be able to communicate better with one another and share ideas more easily.
- Use of visual images can reduce the status differences in a participant group, again because the image is of another with no direct relationship to anyone in the audience.
- Visual images provide an opportunity to perceive from a different vantage point, perhaps offering better insight into a situation.
- Using visual images and photographs is always interesting for the participant group. It can be fun as well as interesting and therefore can provide a stronger motivation to learn.

It is suggested that you use the matrix as a guide and familiarize yourself with all the graphics and how they might best be used and interpreted by your audience. If you decide not to use the graphics as an active part of your presentation, you should post them behind you or on a nearby wall. They speak for themselves and can serve to reinforce messages covered in your presentation.

The graphics provided will probably inspire ideas for their use that are not presented in this manual. You are encouraged to develop your own training activities using all or some of the guinea worm graphics provided. Share your ideas and success stories with other Volunteers and extensionists in your area.

Use of lesson plans for guinea worm instruction

LESSON PLAN	TIME	GRAPHICS	GUINEA WORM FACTORS ADDRESSED						
			CAUSE	CYCLE	TRANSMISSION	PREVENTION	TREATMENT	IMPACT	MISCONCEPTIONS
1 ENERGIZERS	5 MIN	X	X	X	X	X	X	X	X
2 CASE STUDY	2 HR	1, 2, 3, 6, 7, 10, 12, 13, 14, 15, 16	X	X	X	X	X	X	X
3 PROVERBS	1.25 HR	All	X	X	X	X	X	X	X
4 TWO PILE SORT	40 MIN	All	X	X	X	X	X	X	X
5 STORYTELLING	2.5 HR	1, 3, 6, 14	X		X	X		X	
6 GAMES	1 HR	All	X	X	X	X	X	X	X
7 CRITICAL INCIDENT	1.5 HR	2, 4, 6, 14, 16		X		X	X	X	X
8 DEMONSTRATION	40 MIN	3, 4, 5, 7, 9, 15	X	X		X			
9 FISHBOWL	1.5 HR	1, 4, 6	X	X					
10 ROLE PLAY/DRAMA	1 HR	All	X	X	X	X	X	X	X

Use of lesson plans for peace corps requirements

LESSON PLAN	COMMUNITY ENTRY	ROLE OF PCV	COUNTER-PARTS	CROSS CULTURE	GENDER	PROBLEM SOLVING	COMMUNICATION
1 ENERGIZERS							
2 CASE STUDY				X	X	X	X
3 PROVERBS	X	X		X		X	X
4 TWO PILE SORT				X	X	X	X
5 STORYTELLING				X		X	X
6 GAMES				X			X
7 CRITICAL INCIDENT	X	X	X	X		X	X
8 DEMONSTRATION		X		X			X
9 FISHBOWL	X	X	X	X			X

10ROLE PLAY/DRAMA	X	X		X		X	X
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Use of guinea worm graphics

GRAPHIC	INDICATES CAUSE	INDICATES TRANSMISSION	INDICATES PREVENTION	INDICATES IMPACT
1			X	
2				X
3	X		X	
4	X		X	
5	X	X	X	
6			X	
7	X	X		
8	X	X		
9	X	X		
10		X		
11				X
12				X
13				X
14	X	X		
15			X	
16			X	
17	X			

References

The following references were used in the preparation of this manual.

Community, Culture, and Care: A Cross-Cultural Guide for Health Workers. 1990. Peace Corps ICE Publication HE003.

Nonformal Education Manual. 1989. Peace Corps ICE Publication M0042.

Programming Guide for Guinea Worm Eradication. 1990. Peace Corps ICE Publication T0067.

Teaching Guinea Worm Prevention in Secondary Schools: A Guide for Training Peace Corps Volunteer Teachers. 1991. WASH Field Report No. 321 (Peace Corps Whole ICE Catalog No. T0062).

Community-Based Initiatives to Eradicate Guinea Worm. 1991. Vector Biology and Control Project. VBC Report No. 81134. (Peace Corps Whole ICE Catalog No. T0065).

Mills Booth, Elizabeth. 1995. *Promoting Powerful People-A Process for Change.* Academy for Educational Development and the United States Peace Corps.

Education for Health. 1988. Geneva, Switzerland. World Health Organization.

Prins, Agma, and Yacoob. May 1988. *Adding Guinea Worm Control Components: Guidelines for Water and Sanitation Projects.* WASH Technical Report No. 51.

Opportunities for Control of Dracunculiasis. 1983. Report of a Workshop. Washington, D.C. National Academy Press.

Hart, Lois B. 1991. *Training Methods That Work.* Crisp Publications, Inc. Menlo Park, California.

Theater For Development. 1985. Center for International Education. University of Massachusetts.

Werner, David, and Bower, Bill. 1982. *Helping Health Workers Learn.* The Hesperian Foundation. Palo Alto, California.

A Question of Access: A Training Manual on Planning Credit Projects that Take Women into Account. 1995. The United Nations Development Fund for Women.

Navamaga. 1988. Overseas Education Fund. Washington, D.C.

African Proverbs. 1985. Compiled by Charlotte and Wolf Leslau. Peter Pauper Press, New York, NY.

African Proverbs and Wisdom. 1996. Compiled by Julia Stewart. Carol Publishing Group.

My Soul Looks Back, Less I Forget. 1993. Edited by Dorothy Winbush Riley. Harper Perennial.

Yoruba Proverbs: Translation and Annotation. 1973. Compiled by Bernth Lindfors and Oyekan Owomoyela. Ohio University Center for International Studies, Africa Program.

List of graphics

1. Family without Guinea Worm

2. Family Suffering from Guinea Worm
3. Woman (women) Filters Water
4. Man or Boy Filters Water in the Fields (or Drinking from "Bottle" of Filtered Water)
5. Helping an Infected Person Get Water from Pond (Barrier)
6. A Health Education Session with Mixed Audience
7. Infected Person in Water While Another Drinks
8. Woman with Guinea Worm Collects Water from Pond
9. Husband and Children Drinks Unfiltered Water from Jar
10. Man with Guinea Worm Bathes in Pond as Larvae Spews from Worm
11. Father with Guinea Worm Gives Hoe to School Boy
12. Man and Woman with Guinea Worm Look Sadly at Unkept Fields
13. Woman with Guinea Worm at Home with Small Children and Dirty Yard
14. Life Cycle of Guinea Worm
15. Health Education Session on Demonstration of Filtering
16. Someone Washes Guinea Worm Sore With Soap and Water (Filtering in Background)
17. School Children Drink from the Pond

FOR A BETTER TRAINING, JUST ADD....

<p>FUN ANALYSIS CHALLENGE PATIENCE SKILLS INFORMATION TIMING PROCEDURE ASSERTIVENESS PRACTICE ENERGY ENJOYMENT RESPONSIBILITY SIMPLICITY VISUALS BODY LANGUAGE INSIGHT EVALUATION ACTIVITY TRUST GOALS GRATITUDE PROBLEM SOLVING CONFIDENCE REASONING FOLLOW-UP COMMUNICATION OBSERVATION DEMONSTRATION ATTITUDE COMFORT LISTENING CREATIVITY ADAPTABILITY LAUGHS CULTURAL CONSIDERATIONS FEEDBACK ACKNOWLEDGMENT ACCURACY INFORMATION RELEVANCE TOLERANCE ENJOYMENT PARTICIPATION PREPARATION RESPECT OBJECTIVES FACILITATION FLEXIBILITY COMMITMENT CONSIDERATION COMPASSION IMMEDIACY</p>

Energizers

(NOT FOR GUINEA WORM ONLY)

Quick energizing and warm up activities

Two of the many requirements for a successful training program are participants' desire to learn and their ability to concentrate on the material presented. Many training programs are over loaded with information and result in an exhausting, albeit positive, experience for participants. Energizing and warm-up activities can help participants ease into a program and help maintain an atmosphere conducive to sustained learning throughout the hours or days of training. Energizer activities can help a trainer get a feel for the group's style of learning, their willingness to cooperate, and their ability to have fun. They help Trainees recognize resources and talents available among themselves that could enhance their training experience.

Energizing activities can be used to start a training program, setting the tone for subsequent sessions. They can be used to re-energize a group just coming back from a lunch or coffee break. They can successfully boost energy and interest levels that sometimes lag in the middle of a morning or an afternoon for no apparent reason. They can be free of subject matter or they can be related to the training materials you- are presenting. They can be as simple as a moment to stand up and stretch or an organized exercise that gets everybody involved and moving at the same time. They can be just a lot of fun or they can be poignantly significant.

In choosing energizers that will work for your training, a few factors should always be considered:

- **The nature and makeup of your group.** Consider the participants backgrounds and communication skills. Don't introduce an exercise that would feel threatening, intimidating, or embarrassing to them. If working with a group of mixed capabilities, choose an exercise that will put everyone on the same level.
- **Group expectations.** The participants' understanding of their roles in the learning process could affect their willingness to be fully engaged in certain activities.
- **Program content.** If you choose to use energizers that treat any particular subject, make sure it relates easily to the theme of the training.
- **Program length.** A training that lasts a week, for instance, can accommodate several different energizing activities throughout the week. A half-day or a one-day training will need only one or two well-chosen activities.
- **Cultural considerations.** If you are working with a culturally-diverse group, make sure you do not ask participants to do something that would be inappropriate for some of the members.
- **Personal style of the trainer.** As the trainer, you should be comfortable with any energizing activity that you propose to a group. They are often presented with little preparation time, and garner a spontaneous and unpredictable response. Your understanding of the exercise and enthusiasm for it as you briefly instruct the participants will set the tone for the activity.

The energizers proposed below are only a few of dozens of possibilities. Use your imagination in developing variations of these or creating new and fun activities of your own. None of the activities below requires more than five minutes to complete. They are not meant to be used as comprehensive lesson plans, but rather are quick energizers to be used spontaneously at any time during a training. You may, however, choose to elaborate on any one of them and develop a more complete lesson plan.

The activities are presented first in their generic form and then with suggestions for using guinea worm as the subject matter. You can easily integrate any other pertinent subject according to your needs.

1. THE SINKING SHIP

Have all participants stand. There should be space enough to move freely about without interference from tables or chairs.

Explain that they are in rough sea waters on a large ship. They must move around the ship (the room) until they hear you call out a number. The number must be larger than one and shouted out so that everyone can hear. It represents the number of people that can fit into a lifeboat and be saved. The participants must quickly cluster into groups of exactly the number called out. Those not included in a cluster will drown.

Repeat the exercise three times, choosing a different number each time. Insist that participants move about the room until you call out the number.

1.1 DON'T DRINK THE WATER

Have all participants stand, same as above.

Explain that they are people at a large village market. They are looking for the drinking water sold in the bright orange bottle because it is the only officially filtered water at the market; all other available water is probably contaminated with guinea worm larvae. The participants must move about the market until you call out a number which represents the number of people that will be able to quench their thirst from the orange bottle before it is finished. The participants cluster quickly into groups of exactly the number called out. Those not included in a cluster have only the contaminated water to drink.

After repeating the exercise two or three times, ask if anybody would actually drink contaminated water in an emergency of thirst. Ask if there is an alternative to drinking the bad water. Ideally, someone will suggest filtering whatever water is available with any accessible cloth or filter. The lesson: never drink water that is suspect without filtering first. A tight-weave fabric or doubled-over cloth can be used in place of a filter.

2. CONSTRUCTING A SENTENCE

Have participants stand in a fairly tight circle.

Explain that they will construct a sentence together by allowing each participant to add two words to the previous words given. The subject matter is not predetermined and the sentence can take any form but must make sense in the end. A volunteer offers the first two words, with the next person adding two words until the circle is completed. The trainer writes the words quickly as they are given and reads the sentence when the exercise is finished.

2.1 CONSTRUCTING A SENTENCE ABOUT GUINEA WORM

This version is the same as above except that the subject matter is predetermined. You might ask, for example, that the completed sentence include a message about guinea worm prevention or guinea worm life cycle.

The exercise could be repeated a second time if the participants are interested.

3. A PICTURE IS WORTH A THOUSAND WORDS

Choose a picture, a painting, or any kind of image that you can post in front of the group. Have participants get up from their seats to look more closely at the image for a minute without speaking. Have

participants return to their seats, or stand in a circle where they will take turns sharing one word only that comes to mind concerning the picture.

3.1 A PICTURE IS WORTH A THOUSAND WORMS

Same as above except that you choose a picture that clearly exhibits a message concerning guinea worm disease. Make note of the variety of feelings indicated by the participants words. Ask for a volunteer to summarize the responses, forming one or two primary messages concerning guinea worm disease.

4. MEDITATION OR VISUALIZATION

Sometimes Trainees just need a moment to collect their thoughts or rest their tired minds. Ask participants to sit comfortably in their chairs, take their shoes off if they like, close their eyes and enjoy two full minutes to breathe deeply and relax. Explain that you will notify them when the time is up.

4.1 GUINEA WORM VISUALIZATION

Explain to participants that you will conduct a short visualization exercise concerning guinea worm disease.

Ask participants to find a comfortable position in their seats, close their eyes, and listen carefully. In a gentle, soothing voice you describe a lovely village. The people in this village have recently been suffering from guinea worm disease. The village was visited by health authorities who explained the cause of the disease and methods of prevention. The people in this village are committed to doing all the right things to eradicate the disease and become a healthy community again. Everyone filters drinking water at home and away from home. Healthy neighbors of those with guinea worm help to care for the sick families. They gather wood and water for them and make sure the small children are cared for. Docks and platforms are built at the water source to allow people to collect water without immersing themselves. Teachers integrate hygiene lessons into their classes and teach the children proper filtering techniques. The older children teach the younger ones. After one year, there is no more guinea worm in the village. There is a community party to celebrate the return of good health in the village.

After a few moments of silence, ask the participants to open their eyes and share what they visualized about the village and how they felt about those images.

5. WHAT IS THIS?

Place an object-any object-on a table in front of Trainees. (It could be a simple rock.) Ask Trainees to spontaneously brainstorm possible uses for the object. For example, a rock could be used as a paperweight, a door stop, a hammer, a garden decoration, a weapon, etc. Continue the exercise for about a minute and note the creative ideas that surface.

5.1 WHAT IS THIS FOR?

Display a piece of cloth-about 2 square feet-in front of Trainees. Ask them to brainstorm possible uses for it, including those that would be appropriate in the local culture. Responses might include a head covering, a handkerchief, a cleaning cloth, a diaper, a scarf for carrying beans or rice from the market, etc. If no one mentions the possibility of using the cloth as a filter for water, ask the participants how the cloth might be used in a guinea worm-infested village. Responses should include use as a filter for drinking water (it may be necessary to fold it once to increase the density of the weave), as a cloth for cleaning the water jar, or (if torn into strips) as bandages around treated guinea worm sores.

6. HE SAID/SHE SAID

Have participants stand in a circle. Explain that they will pass a message from one to the other by whispering in each other's ear. The trainer gives the original message written on a piece of paper to

someone in the circle who will start the process. Each participant whispers the message only once regardless of whether the receiver heard it well or not. When the last person in the circle receives the message, she or he states the message out loud for everyone to hear. The first person then reads the original message. Probably there is a difference between the two, maybe a vast difference. A comment can be made about the importance of clear communication. The original message can be complete nonsense or it could be related to training materials. An example of a nonsense message:

I heard yesterday that we'll be having hot fudge sundaes for lunch tomorrow but they're giving us liver and onions today.

6.1 WHAT DID HE SAY / SHE SAY ABOUT GUINEA WORM?

This version is the same as above except that the original message uses guinea worm as the subject. Try one of these messages as an example:

Some people believe that guinea worm is the result of a curse placed on the village because someone did something taboo, like farming on a traditional holiday.

Some people believe that guinea worms get angry when they are covered with a bandage and so will retract into the body to go look for another place to emerge.

After comparing the two messages, ask if the original statement is true. Why or why not?

7. TOSSING TENSIONS AWAY

Ask participants to take out a piece of notebook paper. (If possible, provide sheets of different colored paper.) Ask them to reflect for a moment on one unpleasant or "yucky" thing that happened to them today or yesterday or recently. Give them one minute to write whatever they want about the incident. Assure them that they will not be asked to share what they write. When they finish writing, ask them to wad the piece of paper into a ball. Instruct them that when you say "Go," they should throw the wad of paper, and their tension, across the room.

Ask participants how that felt. Collect all wads of paper and put them in the wastebasket.

7.1 TOSSING GUINEA WORM TENSIONS AWAY

Conduct the same as above except ask participants to write down any personal fears or reactions to what they have seen or heard about guinea worm disease.

After throwing the wads of paper, ask participants if you can read some or all of the reactions to the group. (All comments should be anonymous.) Read as many as you think appropriate for the exercise and allow comments or discussion if time permits.

8. LIVE WIRE

Have participants stand in a line holding hands. Explain that they represent a live electrical wire. They are going to rapidly repeat the sentence, Live wires are dangerous, one word per person, following the sequence of the line, until someone misses her or his cue or messes up the sentence. That person represents the short and must immediately react as if giving off an electrical shock (perhaps by trembling in both arms or the entire body). The shock, of course, travels up and down the wire (the line of participants) until everybody is shaking like a live hot wire.

Given time and interest, you can repeat the exercise before asking people to take their seats.

8.1 LIVE GUINEA WORM WIRE

Same as above except the sentence to repeat has a guinea worm message such as, guinea worm disease can be eradicated.

After one or two rounds, ask participants how guinea worm can be eradicated. Spend just a minute on their responses.

9. BEND AND STRETCH

Sometimes participants just need to get up to stretch their legs for a moment. Have them stand away from their tables and chairs. Ask them to SLOWLY bend forward trying to touch their toes. (They should go only as far as it is comfortable for them.) Have them hold that position for a couple of seconds before you ask them to come up SLOWLY and continue their motion until they are reaching their hands and faces toward the ceiling. Instruct them to hold that position for a couple of seconds, then ask them to return SLOWLY to the standing position with arms at their sides.

Repeat once. Ask them to return to their seats.

9.1 BEND AND STRETCH A GUINEA WORM

Do exactly as instructed above for the first round of the stretch. Then ask participants to imagine the discomfort of sitting for days and weeks without being mobile because of guinea worm disease. Ask Trainees to do the same bend forward as if they had a guinea worm or several guinea worms coming out of their legs or arms. Talk them through it.

When they have returned to the standing position, tell them to do it one more time as healthy people who no longer have guinea worm and are able to move freely. Repeat the exercise, then have participants return to their seats.

10. UNTYING THE KNOT

Divide participants into small circles of about 10 people each (or just one circle if your group is not large enough to divide). Ask them to cross their arms at the elbow and reach to hold the hands of others in the circle. Tell them to hold hands tightly as they maneuver, twisting and turning, to untie the knot and form an unbroken circle facing each other, or facing out.

10.1 UNTYING THE GUINEA WORM KNOT

Do exactly as instructed above but explain that sometimes people have several guinea worms and they must untie the knot of worms to allow them to come out of the body. Remind them that it is dangerous to pull on a worm too hard because it might break causing complications. They should maneuver gently.

Case study

"Fairness is an across-the-board requirement for all our interactions with each other. Fairness treats everybody the same."

Barbara Jordan

The case study technique uses a printed description of a problem situation that includes enough detail for participants to determine certain appropriate actions they might take to resolve the problem situation. A case study simulates reality, allows participants to draw upon their own experiences and promotes a more active involvement as they apply theory to practice.

SOME GUIDELINES FOR WORKING WITH A CASE STUDY

- Choose an appropriate case study that will fit your objectives. Adapt the details of the case or write a new case that best fits the problems of your participants.
- Develop strong characters and include adequate conflict in their interactions to insure interest and realism.
- Explain to the participants the purpose of using a case study and read any particular directions you want them to follow for this study.
- Work in small groups to analyze the case. This encourages a more varied response from participants than working in a large group.

VARIATIONS ON THE CASE STUDY METHOD

"Misfortune is sometimes just good fortune well wrapped up; when the wrapping wears away, good fortune tumbles out."

Ahmadou Kourouma

CLASSIC CASE:

Participants are given a written case taken from either a real or hypothetical situation. The case is read carefully, small groups are formed to discuss the circumstances of the case and asked to address a set of questions that are introduced by the facilitator. In the large group, a spokesperson from each small group summarizes the group's findings and responds to the questions posed. An open discussion is conducted in the large group after all individual presentations have been made. Learning takes place in large part by listening to the divergent views of the entire group. Sometimes the biggest lesson is that there is no one right answer. Sometimes there may be no answer at all.

THE LIVE CASE:

The trainer brings in someone who is currently immersed in a problem situation and is willing to share the problem with the group, describe in detail the situation, and answer any questions the participants might have to help them better understand the situation. After sufficient time in the large group, the participants can form smaller groups for brainstorming on possible approaches or solutions to the problem. The spokesperson would then reply to their propositions, giving realistic feedback on their appropriateness. Again, some of the best learning might come from seeing that there is no one answer and that there are always many details to consider before launching into a solution.

THE RANKING APPROACH:

Present a comprehensive case to the large group and propose a list of possible solutions. Have the participants rank the solutions on an individual basis first. Next, break into small groups; instructing participants to discuss their personal rankings and agree on a final ranking for their group to be presented to the large group. Reconvene and compare the ranked lists, allowing time for discussion.

THE INCIDENT PROCESS APPROACH:

A case study is distributed to participants but there is too little information included for them to easily reach a decision, even a preliminary one. The trainer has all the necessary information but only reveals it when asked the specific question. The participants have to learn how to ask questions properly so that they can get the information they need to make a decision. The Incident Process Approach works well to promote communication and problem solving skills.

PURPOSE

- To provide Trainees with an opportunity to develop analytical and problem solving skills.

- To introduce Trainees to basic elements of gender analysis in development projects.
- To provide accurate information about guinea worm disease.

OBJECTIVES

- Trainees will have learned to use case study as a technique in how to analyze a problem situation.
- Trainees will have completed a gender analysis matrix.
- Trainees will be able to cite at least three impacts of guinea worm disease.

PROCEDURE

5 MINUTES

1. Begin by **reviewing** basic knowledge concerning guinea worm disease. (Trainees should have read the fact sheet on guinea worm by now.) Lead a brief discussion about what causes guinea worm, how to prevent it and how cases of guinea worm are best treated.

15 MINUTES

2. **Explain** to the group that in this exercise they will be using a case study technique to practice some basic elements of gender analysis. Explain that there are many ways to use the case study method and this is just one example. (The handout included with this lesson plan suggests other uses of case study.)

Write the words "GENDER ANALYSIS" on a large sheet of flip chart paper. Explain that there are many ways to do a gender analysis and this lesson will present just one example.

Distribute copies of the case study to all participants and ask them to read it carefully.

Ask someone to **briefly summarize** the main points made in the case so that the large group may proceed in general agreement.

30 MINUTES

3. **Form small groups** of no more than five or six people each and distribute a copy of the gender analysis form to each group.

Instruct the small groups to **fill out the matrix form** identifying the differences that exist between women and men in this case study. For some of the information requested, participants can make assumptions based on their own experiences.

30 MINUTES

4. At the end of the 30 minutes, ask each group to give a three minute **report to the large group** on their findings. Use the previously prepared flip chart to write key words from the small group responses.

Allow a ten minute **discussion** by the large group on their collective findings and what it might mean to the community.

20 MINUTES

5. Ask the **small groups to re-form and discuss** the following questions:

- Given what we now know about the situation in Zabo, what might you, as a Peace Corps Volunteer, propose as a strategy to further address the guinea worm problem in Zabo or your community?
- What would you be concerned about as you develop and organize new projects?

15 MINUTES

6. In the large group setting, taking one question at a time, ask for volunteers from each group to **share their responses**.

Record key ideas on flip chart paper.

5 MINUTES

7. Close by **explaining** that they have just studied a case from a gender perspective. Encourage them to look into other gender analysis techniques that could help them in their work.

And finally, ask if any new information about guinea worm was given in this lesson and if they see a relationship between guinea worm eradication efforts and gender considerations.

Fried cakes Zabo

(A SAMPLE CASE STUDY)

"Your attitude about who you are and what you have is a very little thing that makes a very big difference."

Theodore Roosevelt

Zabo is a small village in the district of Aka. The village is isolated by 30 kilometers of unpaved roads that are impassable for more than half the year. The people of Zabo rely on their excellent farming and hunting skills to feed their families. Any excess of produce, animal meat, or hides is easily sold at local markets. In fact, the fried cakes made in Zabo are known to be the best in the country and always sell out completely on market day. People say it is the superior corn raised on the soil of Zabo that makes the fried cakes so much better than others. The women of Zabo like to tease that they have a special and secret way of preparing them, which they could never share with outsiders.

In Zabo, both men and women work the fields year round. The men always manage the corn and manioc crops, while the women concentrate on vegetables and potatoes. The men are skilled hunters and the women know how to skin and treat the hides to get the best price at the market. In Zabo, it is the men who tend to participate in politics as community representatives at the district level. They even represent the needs expressed by the women of the village. The women don't hesitate to speak openly about their concerns in Zabo, but they rarely attend the district level political meetings.

The women in Zabo take almost exclusive responsibility for raising the children, cooking, cleaning and other household chores. Women, or the older children, are responsible for gathering water and wood for the family's daily needs. Men often carry large branches of wood home when they find it in the fields.

Access to clean water has always been a problem for the people of Zabo, but recently the situation worsened considerably. Two years ago, during the visit of a family member from another part of the country, the local pond was contaminated with guinea worm and now 30 percent of the population suffers the disease. Many of the men have not been able to plant their corn at all; others are not able to tend the fields to assure a good harvest. The women haven't had the necessary corn to make their special fried cakes, and in any case, many who are sick with guinea worm are not able to work as they did before and

cannot make it to the markets at all. The older children with guinea worm are absent from school for weeks at a time and chores around the house simply do not get done. The smaller children suffer the lack of attention from their mothers and fall sick with belly aches, infections, and fevers from the unhygienic conditions that have developed around the house and community.

The women of Zabo asked the men to seek help for this problem at the district meeting because they were suffering so much and because they were not able to sell their goods at the market. Two of the men came back from a visit to the district and reported that there was nothing to be done about the guinea worm in Zabo. They heard it was the result of a curse placed on the village when someone did something to offend the ancestors. The entire village was upset with this news. Not everyone accepted it as truth.

One day, a woman of the village returned from a day at the market and spoke of a man who asked why he had not seen the Zabo fried cakes lately. The woman explained the sad situation in the village and the man said he had heard of this awful disease. He said it was not a curse put on the village, but rather tiny, almost invisible bugs in the water that were giving the people of Zabo guinea worm when they drank it. He said they should start to pour their drinking water through a cloth to remove the tiny bugs. He said it could be any cloth with a tight weave, but he had heard of a special filter cloth that was used in other parts of the country. He suggested that a request be made to the district health center to have a health agent visit the village and better explain the disease.

When the other women heard this news they asked the men to go again to the district for help. The men hesitated because they said it was embarrassing to reveal the curse that was placed on their village. The women insisted that the men try again or they would go to the district themselves.

In the meantime, a few women started to filter the water they brought from the pond with pieces of their cotton wraps. They weren't sure that it would do any good but when they looked at their sick children, the state of their homes and their own bad health, they knew they had to do something.

When health agents finally arrived in Zabo, they were shocked to see so many cases of guinea worm; it was not a common problem in this district. Through interviews with the villagers the agents confirmed that it was the visitor who stayed with them two years ago who first contaminated the pond, but since that time, it was the guinea worm infected people of Zabo who were recontaminating the water by immersing their sores in the pond water. Up until now, the people of Zabo had not understood the life cycle of the guinea worm.

The health agents held an afternoon education session to explain the causes and prevention of guinea worm. Nearly everyone was there to listen. Before leaving, they washed and treated some of the worst cases that they found in the village and explained that unless everyone took precautions to drink only filtered water and keep infected people away from the pond, the village of Zabo would have an even worse problem the following year.

After the agents left, it was the women who started filtering water that came from the pond, but they asked for help from everyone else to assure the water was filtered and kept clean. They asked the men of the village to build a dock that would extend into the pond so that no one would have to step in the water. The women were insisting on change. They wanted their children back in school. They wanted their husbands back in the corn fields. And they wanted to get back to the markets to sell the famous fried cakes of Zabo.

Gender analysis form for the case of Zabo

1. What household tasks and agricultural work do women and men perform in this community?

MEN

WOMEN

2. What is the important work that women and men each contribute to the survival of their community?

MEN
WOMEN

3. Based on the type of work they do, what are the different interests, concerns, and needs that women and men have in Zabo?

MEN
WOMEN

4. What resources might men and women have control over?

MEN
WOMEN

5. What different and similar benefits might men and women receive from guinea worm eradication efforts?

MEN
WOMEN

6. What type of control might women and men have over the benefits of eradication of the guinea worm in Zabo?

MEN
WOMEN

7. What might be some reasons for resistance to equal responsibility in eradication efforts in the community of Zabo?

MEN
WOMEN

Proverbs

"Symbolism is the act of thinking in images, an act that civilized people are losing."

African poet

A wealth of culture and history is found in the oral tradition of poems, stories, parables, - and proverbs. African cultures are especially rich and thriving in their continued use of traditional proverbs and their wisdom in coining new ones. Proverbs are sometimes profoundly philosophical, sometimes clearly mischievous, sometimes painfully poignant, but almost always direct and efficient in their ability to situate contemporary events into a respected traditional context.

Proverbs are considered a convincing traditional style of communicating messages that are often difficult to express by the speaker and perhaps awkward to accept by the listener. Those who speak in proverbs are considered to be wise and rich with life experience and often looked to by others to help clarify a complicated situation. Their knowledge of appropriate proverbs reveals a command and respect of the culture, something that is appreciated tremendously in an age of great and rapid change.

When proverbs are translated and circulated from culture to culture, we have the opportunity to discover valuable insight to other world views and the universality of ideas and values that link us all to the same human family.

The potential uses of proverbs by Volunteers are limitless. Seek them out to better understand the communities in which you work. Share ones from your own background that convey similar messages. Incorporate them into any training experience. A proverb can serve as the central idea of an exercise or simply be posted in the room to reinforce the desired message. Let your imagination be your guide.

"If it gets any better, I may go jump over the moon."

Oprah Winfrey

NOTE:

It would be best to consult with a host country national to identify proverbs that are specific to the area. The collection included in this lesson plan comes mostly from visits made to five West African countries during the guinea worm Africa tour (1996-97). The proverbs listed can be used as presented or as a guide in your search for their appropriate cultural equivalents. Take time to understand the proverbs known in your communities and learn to use them correctly.

Choose at least 10 proverbs that will be appropriate for your subject matter and the message you wish to convey. Prepare a handout of the chosen proverbs for distribution in small group work. If possible, write proverbs in English, French, and/or the local language. It is best to give Trainees the opportunity to practice in the local language.

PURPOSE

- To provide Trainees an opportunity to appreciate and use local proverbs in their work as Peace Corps Volunteers (PCVs).

OBJECTIVES

- Trainees will be able to identify at least three proverbs that can be used in future work as PCVs.
- Trainees will use at least three proverbs in talking about causes and prevention of guinea worm disease.

PROCEDURE

For this lesson we will use proverbs that can speak to awareness of danger, prevention of disease, looking to the future, and taking control of one's life. This lesson concentrates on guinea worm disease, but you will see that the proverbs could be used in many other situations.

15 MINUTES

1. Begin by reviewing basic knowledge concerning guinea worm disease. (Trainees should have read the guinea worm fact sheet by now.)

Ask all Trainees to stand. Explain that you will pose a series of questions about guinea worm and as they answer correctly they may sit down. (Refer to list of prepared questions in the User's Guide, page 13.) Continue with questions until everyone has had a chance to respond and is seated. Be sure to include questions that address all of the following aspects of guinea worm disease:

- Causes of guinea worm
- Life cycle of guinea worm
- Prevention of guinea worm
- Transmission of guinea worm
- Impact of guinea worm

10 MINUTES

2. **Introduce the concept** of using proverbs in their work as Peace Corps Volunteers. If possible, solicit the participation of a host-country national training staff member or cross-cultural spokesperson to make a statement about the value of proverbs in the culture.

- Proverbs are the daughters of experience. (Sierra Leone)
- A wise man who knows proverbs, reconciles difficulties. (Yoruba)
- A proverb is the horse of conversation: When the conversation lags, a proverb will revive it. (Nigeria)

Recite a few proverbs having to do with the learning process Trainees are currently experiencing. Ask Trainees to add others they are familiar with.

- Little by little, the bird builds its nest/Petit à petit, l'oiseau fait son nid.
- Drop by drop, the palm wine fills the gourd/Goutte à goutte, le vin de palme remplit la gourde.
- By trying often, the monkey learns to jump from the tree (practice makes perfect).

Explain to Trainees that they will work in small groups to develop short educational messages (infomercials) about a particular aspect of guinea worm disease, integrating one of the proverbs from a prepared list. Messages should contain one proverb and one central idea about guinea worm, according to small group concentration.

Presentations for each message should be no longer than 2 minutes.

20 MINUTES

3. **Divide Trainees** into four or five small groups (It would be great to have a host-country national in each group to facilitate understanding of the proverbs.). Provide each group with copies of the guinea worm fact sheet, copies of the list of proverbs, and a concentration for their small group work (i.e., cause of guinea worm, prevention of guinea worm, transmission of guinea worm, life cycle of guinea worm, or impact of guinea worm). Also provide each group with flip chart paper cut into three pieces horizontally, and color markers, to write their chosen proverbs for display after the exercise.

During the allotted time, each small group develops at least three two minute messages to present to the large group.

30 MINUTES

4. Representatives from each group, displaying a proverb written on strips of flip chart paper, present their two-minute messages to the large group. Have them briefly explain, if necessary, their interpretation of the proverb and its relation to the guinea worm message.

At the end of the exercise, display all proverbs on the wall to easily refer back to them during subsequent training sessions.

List of proverbs

"A myth always rises to fill a need"

Gloria Naylor

The vulture does not descend without reason.
(A dire effect doesn't come about without a cause.)

For the sake of tomorrow's food, we wash the marmite today.
(If we are careless today, we may suffer the consequences tomorrow. Or, a stitch in time save nine.)

Hunger is felt by a slave and hunger is felt by a king.

As long as you have lice in your clothes, your nails will remain bloody.
(If the cause of something is not removed, the effects will not be removed.)

If you don't want the branch of a tree in your eye, you'd better watch out from a distance.
(Encourages people to look to the future and to act with foresight so that calamity will not suddenly overcome them.)

The cripple never gets killed in a war of which he has been forewarned.
(Recommends the virtues of foresight.)

The moon moves slowly, but it crosses the town.

Being well dressed does not prevent one from being poor.

Learning to sing Arabic songs is a tough job.
(Used before difficult undertakings.)

The child's hand cannot reach the shelf, the elder's hand cannot enter the gourd.
(Encourages cooperation between young and old.)

The horse of one's enemy does not seem tall.
(People tend to underestimate forces that threaten them.)

In time, twenty years hence becomes tomorrow.
(Time passes quickly. Warns against procrastination.)

As long as we live, there is work to be done.
(Encourages the acceptance of responsibility.)

A woman keeps looking for ingredients for her stew until she finds them.
(Recommends industry and perseverance.)

A visitor usually brings a sharp cutter.

(Sometimes a visitor can have better judgement in helping to resolve a problem.)

No elephant finds its trunk too heavy.
(Take responsibility for what you know you must do.)

When you see an arrow that is not going to miss you, throw your chest out and meet it head on.
(Accept the inevitable.)

Seeing is different from being told.
(Experience is the best teacher.)

When spider webs unite, they can tie up a lion.
(Working together, anything is possible.)

What the child says, he has heard at home.

Wisdom does not come overnight.

By learning you will teach; by teaching you will learn.

Plans are the dreams of the wise.

He who listens, understands.

Teachers can open the door, but you must enter yourself.

It is better to be healthy than the chief of the village.

The rain does not befriend anybody, it falls on anyone it meets outside.

Start early before the floods come.

When the spoon takes a holiday, the spider makes his web in the stew pot.

Thunder is not yet rain.

A child to visitors, but a sage to the people of the village.
(A person should not be judged by her/his physical appearance.)

Where many people urinate, it becomes wet.

The wise with a wink, the fool with a kick.

Every tale can be told in a different way.

An anthill is softened by continual thudding of the feet.
(Success comes through persistent efforts.)

Two Pile Sort

"Learn by others' mistakes because you do not live long enough to make them all yourself"

Traditional

"Two Pile Sort" is an effective animation technique, using visual images, for clarifying problem situations. It is an excellent technique for use with nonliterate or mixed literacy groups.

Pictorial images or drawings, chosen for their appropriateness to particular subject matter, are shown to the target audience. Participants are given an opportunity to define the content of the pictures, according to their perceptions, and how they feel about them. Then they are asked to sort the images into piles that are defined according to the trainer's objectives (good/bad, advised/ill-advised, do's/don'ts, cause/effect, corresponding/ not corresponding to other images presented, etc.) The intended result of a Two Pile Sort exercise is that many details of a problem situation are defined and discussed and an overall understanding is achieved. With these results, possible interventions or solutions can be addressed to ultimately resolve the problem.

There are many possible variations to a Two Pile Sort exercise. In fact, it has also been presented as a Three Pile Sort and even a Four Pile Sort depending on the needs and approach of the facilitator. Even within a two, three, or four pile sort exercise, there are different ways to present and display the images and to conduct discussion around them. Those variations depend mostly on the style of the facilitator and the preference of the participants.

Pictures or drawings can be very effective in engaging participants in a meaningful way. They encourage a reaction that is of the imagination and grounded in a reality from personal experiences.

PURPOSE

- To provide Trainees an opportunity to clarify a problem by categorizing and grouping its elements.
- To provide Trainees accurate information about guinea worm disease.

OBJECTIVES

- Trainees will have learned to use Two Pile Sort to categorize elements of a situation in order to clarify a problem.
- Trainees will be able to explain cause, effect, and prevention of guinea worm disease.

PROCEDURE

1. Trainees should have read the fact sheet on guinea worm by now.

5 MINUTES

2. **Explain** briefly the idea of Two Pile Sort as a tool for analyzing the cause and effect of problem situations. Explain that in this exercise they will use illustrations concerning guinea worm disease, but the exercise can be easily adapted to other subject matter with appropriate illustrations.

5 MINUTES

3. Have Trainees sit in a half circle, as if in a village setting, to listen to a speaker. **Display** graphic 1 (The healthy family) to Trainees. Make sure everyone sees the image well. **Ask** them what they see in the image on the card. Allow several comments before displaying graphic 2 (the family with guinea worm). Ask again what the Trainees see in the image. **Place** the two images side by side on the floor (the ground) with about five feet between them. Ask Trainees if these two families could come from the same village. **Explain** that they are now going to decide what factors determine the conditions seen in the two cards.

20 MINUTES

4. Choose two Trainees to join you in front of the observers. Give them each a pile containing half the guinea worm picture cards provided with these training materials (about eight cards each). The cards should be mixed up and distributed randomly to the two facilitators. Instruct them to take turns showing one card at a time to the observers, asking them to explain what they see in the image. Before showing a subsequent card, the observers must choose one of the two primary images on the floor that corresponds best with the image on the card being discussed. The facilitator should place the card on the floor next to the appropriate family image. (Try to place cards in a circular fashion so that in the end the families are surrounded by the factors that explain their condition.)

10 MINUTES

5. When all cards have been placed, **ask** observers to look closely at the relationships between the images. **Ask** for an observer to **summarize** the message for family 1. Ask another observer to summarize the message for family 2.

10 MINUTES

Ask someone in the group to explain how these two situations could exist in the same village and to propose possible interventions that would help resolve the problem of guinea worm for the entire village.

VARIATIONS ON THIS EXERCISE

"Education takes place in the combination of the home, the community, the school, and the receptive mind."

Harry Edwards

- Present all cards representing the healthy family first before presenting all the cards representing the guinea worm infected family-or vice versa.
- Present all cards *except* the two that indicate the healthy and unhealthy family. Allow discussion of the elements found in each card, then ask Trainees to imagine the overall effect those elements would have on a family. You then present the last two cards to reinforce their conclusions.
- Ask Trainees to decide themselves on two (or more) distinct sides of the situation (e.g., cause/effect) and use that as a basis for the sorting of the cards.

"One thing is clear to me: We as human beings, must be willing to accept people who are different from ourselves."

Barbara Jordan

Storytelling

Tell me a story....

"Children make you want to start life over."

Muhammad Ali

Storytelling is a rich traditional method of sharing knowledge and cultural values. It is a common and revered practice that African cultures have utilized for many generations and one that we can enjoy, learn from, and use effectively ourselves. Storytelling is especially useful in education programs and for encouraging behavioral change. It is an animation method enjoyed by people of all ages.

ELEMENTS TO KEEP IN MIND WHEN DEVELOPING YOUR OWN STORY

PURPOSE:

A good story has a clear and focused objective, one that listeners would have no trouble identifying as the main point by the end of its telling.

CHARACTERS:

Use only one or two main characters that the audience will remember and identify with. Their actions in the story relate directly to the healthful and harmful behaviors that form the objective of the story. (To avoid possible embarrassment, be careful not to use real names or model characters too closely to actual people in the village).

CULTURE:

Take time to learn the unique storytelling style of your area. For instance, sometimes a specific phrase is used to start or end a story. Without it you may be ineffectual. Use names, locations, foods and activities that are recognizable to your specific area. Integrating local proverbs into your story is always appreciated and can be extremely effective in getting your point across. Be sure that you are using the proverbs correctly.

OBJECTIVITY:

Avoid using judgmental words in describing your characters or their behavior. You don't want to say something like, "That foolish man put a mud pack on his guinea worm sore." Simply describe the behavior and let the listener come to her/his own conclusions.

FORMAT:

Consider these two possibilities: First, present two characters behaving differently (i.e. one drinking straight from the pond, the other filtering water). Encourage listeners to discuss the behaviors; which is better and why? Second, lead up to a point where your character must make a decision about conflicting messages she or he has received in the course of the story. Listeners could suggest possible resolutions while justifying their choices, promoting more audience participation, and reinforcing existing knowledge of the subject.

SEQUENCE:

A good story will flow with some logical sequence. You might begin by setting the stage, establishing the problem or main point, introducing main characters, etc. The middle section of the story contains the action where characters face the problem/main point. By the end of the story a decision may have been made, a problem solved, or a solution proposed. In any case, the main point of the story should be clear to the listeners.

ENDING:

The storyteller should never conclude by telling the audience exactly what they should have learned from the story. Encourage listeners to think about the story and come to their own conclusions. Questions at the end help listeners focus on main points and reinforce what they have just learned.

ADAPTING THE STORY:

In some cases, a story can be acted out or performed by community members. This is a good way to test their understanding and acceptance of the main points and at the same time reinforce the learning of those points.

"People create stories create people; or rather stories create people create stories."

Chinua Achebe

Some possible scenarios:

- Immediately after the reading and discussion of the story, simply ask for volunteers to play out the story. This would be very spontaneous and impromptu on their part but could be fun and effective.
- If you have some time after the reading and discussion of the story, ask for volunteers to play it out, give them some time to prepare (maybe 15 minutes) and then have them come back to present to the group.
- If you are a regular visitor to this village, you could ask for volunteers from the community to play the roles and schedule the presentation for your next visit (within a few days would be best). Or you could suggest that the participants come up with their own stories, which they can present at your next visit (This is often done when working with school children).

NOTE:

This lesson requires preparation time for the Trainees. If you don't have a solid block of time to invest in one day, the preparation and presentation of stories (Steps 4 & 5) could be given as a homework assignment for the next day. (Of course, the subject proposed here is guinea worm, but you can easily design the stories to fit the needs of your particular sector.)

PURPOSE

- To provide Trainees an opportunity to develop skills as storytellers.
- To provide Trainees with accurate information about the life cycle, transmission, prevention, and treatment of guinea worm disease.

OBJECTIVES

- Trainees will have developed and presented a story to be used as an animation technique.
- Trainees will be able to describe the life cycle, transmission, and prevention of guinea worm.

PROCEDURE

10 Minutes

1. Begin by reviewing basic knowledge concerning guinea worm disease. (Trainees should have read the fact sheet on guinea worm by now.) Pose questions that solicit general information about guinea worm disease. (e.g., How do you know when someone has guinea worm? What traditional beliefs about guinea worm have you heard about? Can someone briefly describe the transmission cycle?)

10 MINUTES

2. Ask the Trainees to sit back and listen to a story about one particular village that has guinea worm. (Read the sample story.) Ask the Trainees if they learned anything from listening. Did it reinforce knowledge they already had? Did they enjoy hearing a story? Do they think storytelling is an effective method of getting a point across?

15 MINUTES

3. Ask Trainees to describe a **good** story. What elements are necessary? List the elements they cite on flip chart paper. Complete their responses with those listed on the handout "Tell Me a Story" included in this lesson plan. If possible, make copies of the handout for all participants.

60 MINUTES

4. Form three or four groups of Trainees to work together developing a story to be used as an educational session. Each group should have a main point assigned to them (e.g., guinea worm life cycle, transmission, prevention, treatment). Instruct Trainees to develop two or three discussion questions related to their story. Remind Trainees to make their stories culturally appropriate.

Be sure to allow enough time for small groups to work together. It some times takes a while to get the story going. Providing too little time can be frustrating and will not produce useful material.

60 MINUTES

5. Have each small group presents its story and discussion questions to the large group. **Individual presentations should not exceed 15 minutes.** So licit feedback from the large group on the effectiveness of each story. Revisions could be made where necessary and copies of stories could be distributed to Trainees for use in the field. (Once at post, Trainees could read the stories to their families or counterparts to get suggestions on how to integrate appropriate cultural details before presenting to the village population.)

The "whys" of filtering water

(A SAMPLE STORY)

"I have never been to a university, but I do have common sense. I got it from my mother's breast."

Miriam Makeba

Once upon a time, there was a four-year-old boy named Simplicie living in a lovely little village called Kabo. The village was many kilometers from the nearest town and the roads were difficult to travel, so the people of Kabo stayed close to home, producing most of what they needed in their fields and enjoying fruit from the many mango, banana, and avocado trees, which also provided shade during the long hot afternoons.

The village of Kabo had changed recently. Most of the children, including Simplicie, seemed healthier than in recent years. The crops in the field were producing better now and the people of Kabo seemed happier. Not even a year ago, Kabo had been seriously contaminated with guinea worm disease. Then a group of health workers and a Peace Corps Volunteer came to visit a few times and explained why guinea worm was a problem in their village. They demonstrated a method of pouring drinking water through a cloth filter to remove the dangerous cyclops. that causes guinea worm. After the visits by the health workers, the people of Kabo talked among themselves and decided to use their filters and to avoid recontamination of their water by helping out their neighbors who suffered with the guinea worm disease. That way the sick neighbors wouldn't have to step in the pond water themselves and reinfect it with guinea worm larvae. In just a year's time, the number of guinea worm cases was reduced by more than half. The people of Kabo were seeing that life was better-much better-without guinea worm disease.

Our little friend Simplicie, being a healthy curious four-year-old, was constantly posing questions to his parents, neighbors, and friends. "How come I can't fly like the birds, Mama?" "What is Papa doing?" "Why?" "How do my eyes know when to open in the morning?" "Why?" "When am I going to get bigger

like Papa?" "How come the trees don't have mangos right now?" "Why?" "But what's a season?" "Why?" "How come Grandpa has worms coming out of his legs?" "But why?!!"

One day Simplicé walked with his mother and auntie to collect water from the pond that was nearby. He heard his mother and auntie talking about the worms on Grandpa's legs.

"The old man is suffering now with his guinea worm. His crops are failing. He's barely able to walk and he has much trouble to sleep at night," Simplicé's mother said sadly.

"But why does Grandpa have the worms, Mama?" Simplicé asked.

"He drank some bad water my son, water that had guinea worm cyclops. In it and now the grown-up worms want to come out."

"But why did Grandpa drink the bad water, Mama?" he asked in confusion.

"He didn't know it was bad water," she said. "It didn't look bad, it didn't taste bad, but the guinea worm germs were in it and now Grandpa is very sick."

A few moments later Simplicé asked, "How come when I drink the water I don't get the worms, too, Mama?"

"Because we always use this, don't we my son?" and she showed him the cloth filter used to strain the pond water into her calabasse.

"But why?" Simplicé asked for the hundredth time already that day.

"Because if we pour the pond water through this filter before we drink it, we won't have any of those cyclops in our water and we won't get sick with the guinea worm," she said confidently.

Simplicé thought for a moment before he asked, "But how come Grandpa got sick? He drinks the water that you pour through the cloth."

"Well, Grandpa drank some water when he was away from home and he didn't pour it through a cloth," she said. "Maybe he was working in the fields and drank from the swamp that is nearby. Maybe it was when he traveled to visit his brother in Taparou. He probably drank water from many different places and he didn't know that the water was bad," she tried to explain.

"But why, Mama? I don't want Grandpa to be sick. I don't wanna see those worms in Grandpa's legs. Why do we have to have worms in our water, Mama? Why? Why?" he began to cry.

Simplicé's mother just looked at him and said, "Come help me to filter this water, my son, and let's go back to see how Grandpa is doing."

"One thing is clear to me: We as human beings, must be willing to accept people who are different from ourselves."

Barbara Jordan

QUESTIONS TO PROMOTE DISCUSSION

1. How and why had the village of Kabo changed recently?
2. How would you respond to Simplicé's question, of "Why do we have to have worms in our water?"
3. What can the people of Kabo do to totally eradicate guinea worm from their village?

Games

"Individual ideas, like breaths, are waiting to be drawn from unlimited supply."

Margaret Danner

Games are structured experiences, usually governed by rules, usually entailing a competitive situation, usually with winners and losers, and usually enjoyable. There are as many games to play as the imagination is allowed to create. Games provide participants an opportunity to be actively involved in learning a concept or key idea, increasing self awareness, or maybe developing a particular skill.

A game used as an effective training method has the following advantages:

- It is an experiential learning method. Participants learn from what they do in the game, not by what the trainer tells them is important.
- It is active rather than passive.
- It has high motivational value. Learners respond well because they are actively and competitively involved.
- It is a fun way to learn.
- It emphasizes the role of the participants and de-emphasizes the role of the trainer.
- It emphasizes peer learning. It recognizes that the participant group is a great resource.
- Learning is accelerated. A game usually compresses a lot of information into a short time period and learning is rapid.
- A game only produces winners. Everyone is a winner because everyone learns or has the opportunity to learn.

When and how to use games

"Stretch your mind and fly."

Whitney Young

In terms of the course design of a training program, games are a versatile and useful tool. They may be used to open an activity or program, implemented anytime during an on-going training, or even used to conclude or summarize a program. Games can provide a needed change of pace, energize a lagging group and rekindle interest in the subject matter. A trainer needs to be sensitive to the timing and appropriateness of any game introduced during the course of a training program.

Successful management of games as a method of training requires attention to procedures such as the following:

- Appropriately time the game in a session or on-going program.'
- Trainers need to be thoroughly familiar with the game, its objectives, procedures, and the materials needed.

- Allow enough time to complete the game and process it well.
- Provide clear and comprehensive instructions to players.
- Keep atmosphere informal and fun for players. Don't let competition spoil the experience.
- Process the experience both as an effective game and how it might relate to the real world where the Trainees will use the information.

NOTE:

The variety of games possible for use in training is endless. Only two examples are presented in this lesson plan. Classic, well-known games can often be accommodated to particular circumstances and learning objectives. Assigning Trainees themselves to develop games around specific objectives is also a good exercise. Inquire about games that are enjoyed in your specific area that could be turned into effective learning tools.

PURPOSE

- To provide Trainees an opportunity to appreciate the use of games as an effective training method.

OBJECTIVES

- Trainees will have participated in and analyzed a game as a learning tool.
- Trainees will be able to explain the cause, life cycle, transmission and prevention of guinea worm disease. (Trainees should have read the guinea worm fact sheet by now.)

PROCEDURE

10 MINUTES

1. Explain to Trainees the purpose and advantage of using games as a teaching tool in their work. **Ask** if they can cite examples of things they have learned through playing games (perhaps spelling skills through Hangman or history through Trivial Pursuit, for example).

2. Explain that they will play two games today that will teach or reinforce knowledge about guinea worm disease and that these games could be adapted to any subject matter. **Ask** Trainees to pay attention to the process as well as the content of the game in order to provide feedback at the end of the exercise.

FOR GAME 1: TIC-TAC-TOE

TOTAL TIME = 35 MINUTES

PROCEDURE

1. Explain to Trainees that they will play a game of Tic-Tac-Toe. The classic principle of Tic-Tac-Toe applies, except that each of the nine squares will be filled with information concerning guinea worm instead of Xs and Os.

10 MINUTES

2. Display an empty frame (like the one following titled "Frame A") on flip chart paper. The frame titles can be changed to provide whatever content you wish. For example, to cover prevention of guinea worm you may want to use a frame like the one titled "Frame B." Or you could go into greater detail on a specific aspect of a problem as "Frame C" would do for filtration of water as a preventive measure. You could prepare several frames with different emphasis, to be played in separate rounds, providing a more comprehensive lesson.

"We cannot resort to simplistic or extreme solutions which substitute for common sense."

Jimmy Carter

FRAME A - GUINEA WORM DISEASE

	LIFE CYCLE	PREVENTION	TREATMENT
INDIVIDUAL			
COMMUNITY			
PCV			

FRAME B - GUINEA WORM PREVENTION

	FILTRATION	WATER CONTAMINATION	EDUCATION
DO'S			
DON'TS			
PCV			

FRAME C - WATER FILTRATION

	MATERIALS	PROCEDURE	WATER
WHO			
WHAT			
WHY			

10 MINUTES

3. Divide the large group into two teams, A and B. represented by different color markers to be used on the flip chart. (The team colors should be different from that used to make the frame and write the titles.) Active players from each team, for each round, should not exceed five members. Active players may be rotated from round to round to give everyone a chance to respond. **Explain** that nonactive players are not allowed to give answers or prompt their team members.

Explain that the starting team (chosen by coin toss or other means), picks any square and tries to fill it in with the answer (A correct statement that addresses both the horizontal and vertical frame titles). Team members have no more that 15 seconds to give a right answer. If they cannot answer correctly, go to the next team, which may try for the same square or choose another. A volunteer writes the correct answer in the appropriate square. The trainer, or another informed person, should be prepared with answers on all squares to approve or disapprove the participants answers. There may be more than one right answer. Accept only one right answer for each square.

10 MINUTES

When a line of three squares, in any direction, is completed in the same color, the round is over and the winner is congratulated.

4. Determine starting team and play game.

5 MINUTES

5. Allow **discussion** on any answers that were controversial and ask for feed **back** on the exercise from all Trainees.

Proceed with another round of the game, allowing different active players from each team.

NOTE:

A variation of this game would be to provide photocopies of a particular frame to all team members. The winning team is decided on the basis of who completes the entire frame first. An oral check of answers, taken randomly from both teams, will provide reinforcement of the correct answers for all Trainees.

FOR GAME 2: FRUIT PASS

TOTAL TIME = 25 MINUTES

PROCEDURE

1. Explain to Trainees that they will be playing a game to quiz each other on their knowledge of guinea worm disease.

10 MINUTES

Arrange seating in a fairly tight circle. **Choose a local fruit** that can handle being tossed (and possibly dropped), such as an orange, apple, mango, etc.

One Trainee is to toss the fruit to anyone else in the circle and call out one of the following subjects: LIFE CYCLE, TRANSMISSION, PREVENTION, TREATMENT, or MYTHS.

Explain that when the receiver catches the fruit, she or he must provide a statement about guinea worm that corresponds with the key word given. She or he then tosses the fruit to someone else in the circle, calling out another of the five subjects.

The trainer, or another informed person, should be prepared to judge the answers either right or wrong. Depending on size of group and competitiveness desired, wrong answers could mean elimination from the circle until a winner is declared. If needed, post the names of the five subjects somewhere for quick reference.

10 MINUTES

2. Conduct the game until basic information about guinea worm is covered or until participants lose interest.

5 MINUTES

3. Allow discussion on any answers that need clarification. Ask for feedback on the game itself as an animation technique for learning.

4. Given enough time, repeat the game using a completely different subject so that Trainees can see how easily the game can accommodate various subjects.

"Dare to invent the future."

Thomas Sankara
(President of Burkina Faso, 1983-87)

NOTE:

There are several variations of this game including:

- The trainer calls out the key words as the fruit is tossed from player to player. This allows some monitoring of details that still need to be addressed.
- Person tossing the fruit poses a True or False question about guinea worm and the receiver must answer correctly.
- Person tossing the fruit starts a sentence about guinea worm and the receiver finishes it.

Critical incident

"If I should find my friend in the wrong, I reproach him secretly; but in the presence of company, I praise him. . . Advice given in the midst of a crowd is loathsome."

Egyptian maxim

A critical incident is usually a story-like description of a problem situation that could occur in one's personal or professional life. Generally, it presents a fictional situation in which the main character chooses one of several alternative ways to respond. The implications of the choices made are described and discussed by training participants. Critical incidents present Trainees with a problematic situation that has no clear cut solution, no absolute answer. It provides training participants an opportunity to examine specific circumstances, discuss the varied reactions among themselves and practice problem solving skills.

In a Peace Corps training context, this method is often used to address situations of protocol, appropriate Volunteer behavior, cross-cultural issues, the role of the Volunteer in development and the relationship between counterpart and Volunteer. It also could be used by Peace Corps Volunteers (PCVs) in a village setting to address problems that exist in the community that seem to have no clear cut solution. PCVs who choose to use this method should feel confident in their language skills and already have a rapport with the population. Critical incidents told aloud as problem stories can be very effective in stimulating discussion and identifying possible solutions for the community. Read aloud, this method can work well for groups with mixed or limited literacy. The scenario used in a critical incident should be realistic enough to be relevant; however, using an actual incident should be avoided. The risk in using a real incident is that the experience may become a public criticism of participants rather than a problem solving practice.

A set of prepared questions should be presented to all participants of a critical incident exercise. The questions should help the participants address the main problem, the various reactions to the problem, and the different possibilities for resolving the-problem. The discussion questions used in a critical incident are never closed-ended but rather open to many varied responses.

Working in small groups to discuss the problem situation can be very effective, but open discussion of a critical incident in a large group setting can also be useful to participants. In a large group setting, facilitation skills are important to encourage participation of as many people as possible.

"You cannot teach what you do not know. You cannot give energy if you're not on fire on the inside."

Jesse Jackson

PURPOSE

- To provide Trainees an opportunity to develop analytical and problem solving skills.
- To provide Trainees with a mechanism for evaluating the effectiveness and appropriateness of their interactions as Peace Corps Volunteers.

- To provide information about treatment of guinea worm disease.

OBJECTIVES

- Trainees will have learned to use critical incident as a technique to assess a problem situation.
- Trainees will have examined their own and others reactions to a particular incident. •
- Trainees will have identified at least two methods of treating a case of guinea worm.

PROCEDURE

5 MINUTES

1. Begin by **reviewing** basic knowledge concerning guinea worm disease. (*Trainees should have read the fact sheet on guinea worm by now.*) Lead a brief discussion about what causes the disease, how it is prevented and how it is treated.

15 MINUTES

2. Explain briefly the idea of critical incident as a tool for analyzing and problem solving. Generally there is no clear cut answer to the problem presented, so you want to encourage all participants to have input according to their personal reactions. **Explain** to participants that in this exercise they will use a critical incident to examine some of the complexities of working in a guinea worm eradication program. The incident chosen presents a hypothetical situation to illustrate important considerations that any intervention as Peace Corps Volunteers will demand.

Distribute copies of the sample incident to all Trainees and ask them to read it carefully.

Ask a Volunteer to **briefly summarize** the main points of the incident so that you have general agreement by the large group on what actually happened in the incident.

40 MINUTES

3. **Divide** Trainees into small groups of four or five people. Give each group a sheet of flip chart paper and marker to write their responses to key questions found at the bottom of the critical incident handout.

Ask members of small groups to try to reach consensus before writing their response and to make note of the differing views that are expressed.

30 MINUTES

4. After small groups have completed their tasks, take just a minute or two to get general reactions from the large group. Next, have representatives from all the small groups come to the front of the room to **present their responses**. If possible, post the flip chart paper of all groups side by side *or* have the spokesperson hold the page up when it is her or his turn to speak. Take each question one at a time, getting responses from all small groups before proceeding to the next question. Allow a few minutes of discussion between questions.

10 MINUTES

5. **Summarize** the results of the small group work and reinforce the idea that there is probably no *one* right answer.

Ask Trainees how they feel about what happened in the incident.

Encourage them, as Peace Corps Volunteers, to approach each day with an open mind and with flexibility for the specifics of each incident. They should also look for other situations that they can incorporate into new critical incident exercises.

Who knows best?

(A SAMPLE CRITICAL INCIDENT)

"The only hard thing, rather one of the two hard things, is knowing your purpose in this world. The other which is harder, is not to corrupt it after knowing what your purpose is."

Gabriel Okara

One day a Peace Corps Volunteer decided to take a different route home after working the afternoon at the local health center. She did this from time to time so that she could meet more people in the village and let them get to know her a little instead of just hearing about her or seeing her ride by on her bicycle. This day she was on foot and stopped to introduce herself to many people who were out in front of their homes. One family in particular left an impression on her that day.

As she was passing by this family's house she noticed a rather loud and heated discussion going on. Nevertheless, when she walked by, someone stopped to smile and say hello, so she went to greet everyone there. She noticed a young man, sitting on a mat, who had a guinea worm coming out of his foot. She looked carefully at the wound and the worm and remarked sympathetically that it must hurt him, but she was glad to see that he was keeping the sore clean. She reminded him that washing the sore each day with soap and water was helping him to avoid infection. She asked him if he had a clean cloth to cover the sore. The young man said that he didn't want to cover the worm because it would stop the worm from coming out. Her counterpart had explained that many people in the village held traditional beliefs about guinea worm disease that would be hard to change. In fact, she had heard others express this same fear about covering a guinea worm sore, but she knew it wasn't true. Covering the sore merely protected it from dirt and infection. She didn't argue with the young man because it was obvious to her that he was keeping the sore clean.

In the meantime, two of the older family members present continued to discuss excitedly what should be done with the young man's worm. One of them recalled that the boy's grandfather spoke of a village where he saw people pull on the worm to help it come out. He felt strongly that they should do the same thing in this case. The other elder man seemed to agree and expressed his support for pulling the worm out. They were speaking in the local language and the Volunteer thought she was understanding most of what was said but she did not make comments. Normally she relied on her counterpart to help with translations of the local languages and felt more confident in trying to explain when he was there to help her find the right words.

A third family member, a young student at the local high school, insisted that the worm be left alone and wound carefully around a small stick until it came out all the way. He said his teacher had explained in a hygiene class that you could prevent guinea worm disease by drinking filtered water and by keeping infected people away from the pond so that their guinea worm could not recontaminate the water source. The teacher also explained that if you were unlucky enough to have guinea worm disease you had to just take care of yourself and wait for the worm to come out on its own.

The two older men absolutely disagreed with the student, saying that it could take months for the worm to come out and that the young man's fields were already going to ruin. But the schoolboy said pulling on the worm would make it break and then the young man would suffer even more. No, the elders said, if the worm broke it would not be a problem. It would just come out somewhere else.

Confused about what to do, the young man with guinea worm asked the Peace Corps Volunteer what she thought. He explained to her in French what every one had said so far. The Peace Corps Volunteer reacted adamantly, saying, NO! to pulling the worm out. She said that despite what Grandfather had said, the worm should be left alone to come out at its own pace. She said that no one should ever pull on a guinea worm, that it can cause infections and prolong the painful process of getting the worm out. She said experts had come from the United States to explain about guinea worm and she was sure she was right about this. Her response seemed to please the young student, but the guinea worm sufferer looked sullen and the two older men seemed almost angry. The conversation ended there. The Volunteer said good bye and continued on her walk home. After just a few moments, she could hear the loud discussion continue as the family gathered around the young man on the mat. She was thinking how the conversation might have gone better if she had been with her counterpart. She would talk to him about it tomorrow.

DISCUSSION QUESTIONS

1. What consequences might this simple interaction have in the village for the PCV? What about for her future efforts in the community?
2. Where is the balance when necessary information conflicts with local beliefs or customs?
3. What other ways might the PCV have handled the interaction?
4. How might having the counterpart present improve the results of this scene?

Demonstration

NOTE:

This lesson requires preparation time for the trainer in gathering and double-checking all necessary equipment for the demonstration and for practicing the technique before presenting to trainees.

PURPOSE

- To provide Trainees an opportunity to develop demonstration skills.
- To provide Trainees with accurate techniques for filtering guinea worm cyclops. from water.

OBJECTIVES

- Trainees will be able to demonstrate how to correctly filter drinking water through a cloth filter to prevent guinea worm disease.
- Trainees will able to explain the importance of filtering drinking water to avoid guinea worm contamination.

PROCEDURE

5 MINUTES

1. Begin by **reviewing** basic knowledge concerning guinea worm disease. (Trainees should have read the fact sheet on guinea worm by now.) Lead a brief discussion about the causes and prevention of the disease.

10 MINUTES

2. Display all necessary materials where they can be seen and ask participants to identify each item. You will need:

- Water to be filtered. (Ideally it should be from a local pond infected with guinea worm.)
- A clean local water storage pot or container to filter water into.
- Something to cover storage pot once water has been filtered.
- Filter cloth that is being used in the national program.
- Samples of other local cloth, such as wraps (paignes) or scarfs.
- Soap and basin with a jar of clean water to wash hands and to wash filter after demonstration.
- String, elastic, or fiber used to attach cloth to mouth of storage jar (depending on model of filter used).
- Cup or jar or calabash for pouring water.

"Start where the people are. Build on what they know. Don't forget that you can learn something from them as you are teaching."

Dorothy Bird Nyswander

Explain that you are about to demonstrate how to filter water to prevent guinea worm disease.

10 MINUTES

3. Perform each step below. Talk through each step as people watch and listen to everything you do.

- Wash your hands with soap and clean water first.
- Explain that cloth that has a fine weave can catch the cyclops. that contain guinea worm larvae. Pass around samples of the filter cloth and other local cloth and ask people to notice the difference.
- Inspect the filter cloth to be sure there are no holes or tears.

5 MINUTES

- Attach the filter to the clean storage pot. (Depending on the filter model, you would place it over the lip of jar or tie it with string, etc.) Make sure filter fits snugly around edges, then form a slight depression in the center with your fingers.
- Pour pond water very slowly from bucket so that none will splash or cause filter to come off. You may scoop water from bucket with a jar or cup or you may pour directly from bucket if possible. POUR VERY SLOWLY. Allow all water to go through filter.
- Remove filter very carefully so that no dirt or tiny organisms fall back into filtered water.
- Cover the filtered water pot.
- Show participants any dirt that may have collected on filter.*
- Shake out filter away from drinking water pot.
- Wash the filter in basin with soap and clean water.

- Hang the filter to dry in a safe place.
- Throw out dirty water from basin away from immediate vicinity.
- Ask participants if they have any questions.

*** You can demonstrate the presence of cyclops. by carefully turning the used filter upside down over a clear glass jar. Pour some clean water over it to wash cyclops. into jar. Cyclops should be visible to the naked eye, but if you have a magnifying glass you could see them clearly.**

5 MINUTES

4. Ask Trainees to repeat orally the steps you just went through in filtering the water and to give an explanation for why you did each thing.

10 MINUTES

5. Ask for a volunteer to come forward to repeat the filtering demonstration. Ask the remaining Trainees to critique the demonstration. If time permits, allow a few more Trainees to practice the skill.

5 MINUTES

6. Ask someone who has not done a demonstration to summarize the main points of the lesson. Make sure the following points are emphasized:

- Always filter drinking water from ponds, streams, and other suspect sources.
- Examine filter before use to determine if it has holes or tears.
- Handle filter carefully after use so that cyclops. and dirt do not inadvertently fall back into water jar.
- Wash filter carefully with soap and water and hang it to dry in a safe place away from sharp objects or tree branches that might tear the cloth.

7. Ask if there are any further questions.

• If the trainer feels confident with language and their relationship with the Trainees, they should consider discussing the effectiveness of cloth filters in preventing diarrhea! diseases (not effective because bacteria and viruses pass through the porous cloth filters.

Thank Trainees for their participation and encourage them to always filter water themselves if there is any doubt of its safety.

"You got to look at things with the eye in your heart, not with the eye in your head."

Lame Deer

"Once you wake up a thought in someone, you can never put it to sleep again."

Zora Neale Hurston

Demonstrations are a powerful training method and animation technique because participants learn by doing, utilizing all of their senses. Demonstrations bring alive the points you may have been trying to make through discussion or readings or lecture. Participants have the opportunity to experience an idea, not just understand it theoretically. Demonstrations are very important to the learning of a hands-on procedure or an activity that has several parts to remember.

It is an opportunity to show rather than just explain how something is done, and to observe the reaction of the audience to better assess their level of comprehension. Demonstrations are an especially important animation tool if language barriers exist.

A few guidelines to respect in order to succeed with your demonstration:

1. BE PREPARED. Think carefully through every step of your demonstration before trying it with your audience. Walk and talk yourself through it at least once in advance.

2. GET YOUR MATERIALS IN ORDER. Have everything you will need in order to do the demonstration properly. Double check the equipment beforehand to avoid last minute glitches.

3. SET YOUR STAGE. Make sure that you have arranged your demonstration site so that everyone will be able to see you. Arrange your materials so that the steps flow smoothly.

4. EXPLAIN THE PURPOSE OF THE DEMONSTRATION. Clearly explain the purpose of the activity to your audience before you get started. If they know what you are doing, they will be able to follow the steps more easily and retain the information longer. You can let them know ahead of time that you will ask them to try the same thing later.

5. PROCEED STEP-BY-STEP. Present each part of your demonstration step-by-step in small sequential gestures and explain as you go along. Do not leave out any steps.

Remember that your audience will copy your every move when doing it on their own.

6. PROVIDE OPPORTUNITIES FOR PRACTICE! Give participants a chance to practice, and offer feedback after each step of the demonstration. Reinforce their success and give helpful feedback when they do not perform a step accurately.

7. TAKE QUESTIONS. Allow time after all practice demonstrations for questions that will clarify details just now occurring to your audience.

8. CONSIDER HOST CULTURE. Always check with someone locally about your plan to demonstrate, what materials you will use and the explanations you plan to give for certain practices. If you demonstrate ignorance of the cultural context, you may lose credibility for your future work in the community.

9. HAVE FUN. Enjoy what you are doing and make the learning enjoyable for your audience. It isn't always easy for people to get up before a crowd to demonstrate a newly learned skill. If your audience sees that you are at ease with the process, they will be more at ease themselves.

"Don't ever let anyone tell you that one person cannot make a difference."

Returned Peace Corps Volunteer

Fishbowl

Communication skills

"A good head and good heart are always a formidable combination. "

Nelson Mandela

Every day of our lives we try to share ideas, feelings, and information with other people. This is what we call communication. It's a part of any relationship between two people. A good relationship can't exist without some sort of sharing of ideas. Talking is the most common way of communicating, but there are many other ways to share information, such as writing, body language, drawing, singing, dancing and so on. Communication, of course, is not a one-way path. There is a sender of information and a receiver of that information. When the sender communicates clearly and appropriately and the receiver hears and understands, ideas are shared. That is when **communication** really happens. A basic philosophy of the Peace Corps is to help people help themselves. Is it possible to work effectively with people without really communicating with them? In fact, many of the techniques you will use in your work as Volunteers in the field are essentially methods of communication. Your skills in this area will be essential to your effectiveness and success with the communities you find your self working in.

The action of sending a message, whether oral, written or otherwise, does not automatically result in communication. There are many common breakdowns in our daily communication efforts that cause misunderstanding, confusion, and sometimes problems in our personal and professional relationships. Coupled now with the language and cultural differences that you will encounter in the communities where you work, the communication skills you possess will be continually challenged.

Let's look at some examples of common difficulties with communication that you may encounter in your field work as a Peace Corps Volunteer:

"The moment you have protected an individual, you have protected society"

Kenneth Kaunda
(First President of Zambia)

- Your message may be received but not understood. (It may be in the wrong language, too technical. You may be speaking too fast or mumbling or not connecting with your audience.)
- Your message may reach only a portion of the audience. (Different learning styles and/or differing needs of the illiterate vs. literate audience.)
- Your audience may receive the message but misinterpret it. (If they don't see the guinea worm cyclops in the water, it must be safe to drink.)
- The message may be received and understood, but it may conflict with traditional attitudes and beliefs. (The belief that guinea worm comes from evil spirits to punish a family. Or a preference for the taste of water from a traditional source.)
- The message is received and understood, but the people are unable to act upon it because of poverty or inaccessibility factors. (Geographically impossible to install pump or dig for well. Nearest potable water source is inaccessible.)
- The message is received and understood, but behavior change is temporary because of disappointing results. (It takes a full year to realize the benefits of guinea worm prevention efforts. There are no immediately recognizable results that would encourage behavior change.)

Now let's take a look at some points to remember that will help you in your field efforts:

"Spoken words are living things-like cocoa beans packed with life.... They will enter some insides, remain there and grow like the corn blooming on the alluvial soil at the river side. "

Gabriel Okara

- Define clearly (for yourself) what message you are trying to relay before presenting to an audience. **Think ahead/be prepared.** If possible, test your materials first. (Even with just one or two people you can get some valuable feedback on important details.)

- Keep your message **simple, practical, brief and relevant.**

- Use appropriate language. If you do not speak the language of the village, use a translator, preferably someone you know and have worked with so that you are assured of accurate translation. Speak in simple terms. Do not use technical language. Find the appropriate words to replace the technical terminology. **Speak slowly and loud enough for everyone to hear.**

- Unless you know for sure, do not assume that your audience is literate. Use oral or visual or active methods of communicating. That way no one is left out or intimidated by your presentation.

- Repetition is very important. Repeat or let someone else repeat the main points of the presentation. Summarize at regular intervals so that the group stays with you and understands the primary message. If possible, arrange subsequent visits to repeat and reinforce those main points.

"Never doubt that a small group of thoughtful citizens can change the world. Indeed, it is the only thing that ever has."

Margaret Mead

Three skills needed to promote good communication are:

Speaking Clearly

Listening and Paying Attention

Discussing and Clarifying

PURPOSE

- To provide Trainees an opportunity for structured observation of various communication skills.
- To provide Trainees with accurate information about the life cycle of the guinea worm.

OBJECTIVES

- Trainees will have learned how to conduct and participate in a fishbowl as animation technique.
- Trainees will have identified at least five practices that contribute to poor communication and five that promote effective communication.
- Trainees will be able to accurately recite the transmission cycle of guinea worm disease.

PROCEDURE

1. Begin by **reviewing** basic knowledge concerning guinea worm disease. (Trainees should have read the guinea worm fact sheet by now.)

10 MINUTES

Ask for a volunteer to describe the life cycle of guinea worm. Be sure these main points are covered:

- Water containing guinea worm infected cyclops.. is swallowed by human being.

- Guinea worm develops inside body for about one year before emerging from human host.
- Guinea worm takes several weeks to totally emerge and exit the human body. During the process, the worm emits larvae.
- When guinea worm larvae come in contact with drinking water source, the water is recontaminated.
- Anyone drinking recontaminated water is at risk for guinea worm disease. The cycle begins again.

10 MINUTES

2. Review the importance of good communication skills. Ask Trainees to cite some common breakdowns in communication that they have experienced and some points that are essential to good communication. Write key words from their responses on flip chart paper. You may complete their list with points found on the Communication Skills handout.

25 MINUTES

3. Divide Trainees two or three groups to quickly come up with a definition of good communication.

Ask each of the small groups to present their definition. Take a few minutes to discuss and come to consensus on just one working definition of effective communication.

Ask Trainees to imagine how simple facts about the life cycle of guinea worm could be easily misunderstood with poor communication.

Choose one or two examples of communication breakdowns from the flip chart list to illustrate problems in communicating information correctly. Have Trainees give concrete examples of possible confusing or incorrect messages about guinea worm life cycle.

5 MINUTES

4. Explain the purpose of a fishbowl to Trainees. It is a technique for structured observation of a group process. (In our case, it is observation of communication skills and the transfer of information about guinea worm.) An inner circle of participants is given a specific topic to communicate about while an outer circle of participants observes and gives feedback on the inner circle activity.

For this particular fishbowl exercise, we will use a role play as our activity. There are many other possibilities such as one-on-one or group discussion, a song, a dance, a game, etc.

Explain to participants that this role play deals with the life cycle of guinea worm but can easily be changed to other topics of interest.

5 MINUTES

5. Determine how to divide the large group: according to number of participants, by sex if appropriate, by other natural groupings according to your specific circumstances.

Present the prepared role play to the inside fishbowl participants and give them a few minutes to review their roles together before you begin the exercise.

5 MINUTES

6. Arrange a circle of chairs for the participants inside the fishbowl with a circle of chairs outside for observers. The outside circle should be close enough to the inside circle for participants to hear and observe without problem.

7. With the selected inner circle participants in place, instruct the outside circle participants to observe closely and take notes on what they hear and see. They especially should keep in mind the previous discussion about effective communication.

5 MINUTES

8. Allow the role play to last for a few minutes or until the main points have been covered.

9. When the time is up, you have a few options:

15 MINUTES

a.) Ask for random feedback from the outside circle on what they observed. You want observations only- no critique at this time.

b.) Ask the outside group to identify what they **saw**, what they **heard**, and what they **felt** during the role play. Take comments about each aspect separately.

c.) Ask inside circle to comment on what happened and how they felt.

Relate participant comments back to the list of breakdowns and points of effective communication that were made earlier.

Ask the observers what messages they received about guinea worm in the role play. Were the messages-clear? How might they be misinterpreted by the poor communication skills used?

10 MINUTES

10. Now ask the participants of the inner circle to do the role play again using the proper communication skills cited on the flip chart. Ask for general approval from the outside circle on the communication skills used and take this opportunity to repeat the main messages about the life cycle of guinea worm.

10 MINUTES

11. A second round of the fishbowl could be practiced switching members of the outside and inside circles. You could have a second role play prepared or you could ask the participants to spontaneously act out a scenario of good communication.

12. After the entire exercise is over, lead the group in processing the experience. Take this opportunity to relate the exercise and skills learned to other sector-specific considerations.

Fishbowl activity

(A SAMPLE ROLE PLAY)

INNER-CIRCLE

1 Peace Corps Volunteer

PARTICIPANTS:

1 Host country counterpart

3 Members of a village committee

SCENARIO:

The PCV and his or her counterpart are meeting with members of a village committee to discuss the possibility of launching a guinea worm education campaign in the village.

ROLES: PEACE CORPS VOLUNTEER

The PCV is a bit nervous and tends to dominate the conversation by talking too fast and speaking a lot of franglais with local language words mixed in. She or he interrupts the others as they try to ask questions or clarify information. She or he tends to speak in formal/text book language about guinea worm (e.g., Dracunculiasis, crustacean host cyclops, subcutaneous tissue.) She or he hands out a written article to committee members who do not read. She or he does not give her or his counterpart the opportunity to facilitate the meeting and in the end everyone is frustrated. The PCV complains that nobody understands her or him.

COUNTERPART

She or he is diplomatically patient with the dominating PCV but is keenly aware of the discomfort of committee members, who do not appreciate the manner in which the meeting is taking place. When she or he begins to speak or tries to clarify main points for the committee members in the local language, the PCV interrupts and finally the counterpart becomes frustrated with the PCV.

COMMITTEE MEMBERS

The members are mostly there to listen, but their facial expressions clearly indicate that they are not able to follow the conversation. They look to the counterpart for clarification but she or he doesn't find the opportunity to help them understand. They ask questions about guinea worm life cycle (e.g., Where does the guinea worm come from? How do we get rid of it? How can it be in my body for a year without me feeling it?) They are confused with responses given and become frustrated with the meeting.

Variations on the fishbowl

1. The fishbowl method could be used to observe group process and help define particular roles that people play and the authority those roles command. The outside circle might be asked to observe:

- Who does most of the talking? Who remains silent?
- What differing roles do individuals play?
- How and why does the discussion get off track?
- What body language is used and what does it communicate?
- How are conflicts resolved?

2. The fishbowl technique is useful for problem solving or decision making when you are working with a large group. First break into smaller groups for discussion on a particular topic. Then form a fishbowl with representatives from each small group representing the position of their respective groups (whose members make up the silent outer circle of the fishbowl). After some discussion, the small groups reform for more discussion and make any changes in their original position to be presented in the next round of fishbowl. The process could be repeated several times until a resolution is found.

Role plays/drama

"In a world of cooperation and peace, we seek not to stifle inevitable change, but to influence its course in helpful and constructive ways."

Jimmy Carter

Role play is a spontaneous hands-on method for simulating a real life situation. As a training method, it is excellent for providing Trainees with an opportunity to involve themselves and to be active in their learning. Role plays permit participants to act out a relevant scenario, giving them a chance to examine their personal reactions and behaviors to the circumstances presented. This is a method that not only allows participants the opportunity to examine their personal reactions to a problem situation, but gives them the chance, in a safe environment, to experiment with different reactions or new behaviors. Role play is an animation technique that draws upon the past experience of participants and requires them to apply theory to actual hands-on practice.

Role plays come in many formats:

SINGLE:

A few players act out a stated scenario or problem situation. A group of observers watch closely and give feedback on what they saw and heard. The players, as well as observers, critique the role play and comment on how they felt in the roles they presented.

DOUBLE:

Each player has an alter ego who stands behind them to prompt with comments or questions they may not be thinking to ask. The feedback session is the same as above.

REVERSE:

During the role play, the trainer asks the players to switch roles. This promotes empathy with the other's viewpoint and provides an alternative reaction to the situation. Trainers should be sensitive to the timing of a reversal, looking for the opportune moment to make the switch. Feedback session is the same as above.

ROTATION:

During the role play, the trainer asks new participants to continue the dialogue already in progress. This method increases participation by Trainees and provides more and different viewpoints during the presentation. Choose carefully the moment to rotate players. Conduct feedback session same as above.

FLIP-FLOP:

Players are given a problem situation to act out in two parts: the obviously wrong way to approach the problem and then a possible correct way to deal with the same problem. Feedback is given by observers and players after each presentation.

"We are responsible for the world in which we find ourselves, if only because we are the only sentient force which can change it."

James Baldwin

A few considerations for using role play:

- Use the role play method a little later in your training when participants are more at ease with one another.
- Set ground rules so that players feel safe and protected from inappropriate feedback during the discussion phase.

- Choose (or write) a role play that directly relates to a problem you want the Trainees to address. Be as concise as possible in its description so that the role play does not become complicated.
- Provide instructions-either oral or written-for the role players and for the observers.
- Give role players enough time to think through their roles (maybe 10 minutes) before asking them to present to a group.
- Arrange the room so that everyone can see and hear the presentation.
- Allow for hesitations or "fumbling" on the part of actors but know when to stop a role play before it gets too far off track. You can usually wait until the second lull in action before ending the role play.
- Conduct a feedback session that analyzes what happened in the role play. Never rush the processing. Allow at least as much time for processing as it took to do the role play itself.

Drama presentations are a very powerful tool for communicating with and mobilizing a community around particular issues. Drama is rooted in the oral traditions found in many developing nations where literacy rates are varied and often limited.

Drama is similar to role play in many ways but requires more time, organization, planning, and commitment by the players. A more formal script needs to be developed for actors to memorize or use as a guide for their own words. Props and scenery will be needed to set the stage. Rehearsals for the actors and publicity for the event will need to be organized to assure attendance by the community.

But do not be discouraged, village drama (or theater) can be very effective for not only getting your main points across, but, for encouraging team work and community involvement. The entire process can be a great deal of fun, too. Remember that some of the best village drama presentations have grown from role plays that first took place in other settings. Keep a record or start a collection of role plays that have worked well and then, given the time and resources, turn them into drama productions.

"Human beings are perhaps never more frightened than when they are convinced beyond doubt that they are right."

Laurens Van der Post

A few considerations for using drama:

- The people presenting a play will learn twice as much if they also take part in creating or writing it.
- Encourage people to speak in their own words. Have actors memorize key ideas and sequence, but let them express themselves spontaneously.
- Conduct the drama where the audience can see and hear easily. Some sort of a raised stage is a good idea if possible.
- Insist that actors speak in a "shout" so that people the farthest away can hear.
- A few good simple props can be very useful for stimulating the imagination and holding the audience's attention. Make them colorful and imaginative. Otherwise, the actors should help the audience to imagine that things are there.
- A play or drama will hold people's attention best if it has lots of action, movement, emotion, and surprises. Try for a balance of serious, sad, light and funny.

- You can include the audience with songs during the drama or by pulling up one or two people to take part in a "village meeting" for example.
- Leave time for discussion afterwards for people who want to make comments or ask questions.

PURPOSE

- To provide Trainees an opportunity to develop role play and drama skills as animation techniques.
- To increase Trainees' sensitivity toward people in problem situations that they might encounter in the field as PCVs.
- To provide information about cause and prevention of guinea worm.

OBJECTIVES

- Trainees will have learned about and participated in the technique of role play as a tool to assess a problem situation.
- Trainees will have examined their own and others' reactions to a particular problem situation.
- Trainees will be able to identify at least three high risk situations for contracting guinea worm and three ways to avoid contracting guinea worm.

PROCEDURE

5 MINUTES

1. Begin by **reviewing** basic knowledge concerning guinea worm disease. (Trainees should have read the fact sheet on guinea worm by now.) Lead a brief discussion about the causes, prevention, and treatment of the disease.

15 MINUTES

2. **Ask** Trainees to tell you what a role play is. Make sure their responses include the concepts of simulation, animation technique for educating the audience, examining theirs and others' reactions to a particular incident, and empathizing with another's point of view.

Explain that there are several different role play formats. (You might want to take time afterwards to describe some of the other formats.) In this exercise, a simple, single role play format will be used with feedback by both players and observers. **State** that the purpose of this role play is to recognize misconceptions about guinea worm disease and its prevention and how the Trainees might react in situations presenting those circumstances.

Ask Trainees to set ground rules for the feedback session. Write key words from their responses on flip chart paper. They should include the rule that comments will not be made about individual performances, but rather about the content of the role play and how it made observers and players feel.

15 MINUTES

3. **Ask for volunteers** to play the five roles involved and distribute the printed role descriptions. Before having players leave the room to prepare, ask the entire large group if there are any questions. Give players 10 minutes to prepare.

Arrange the room so that everyone can see and participate fully.

Ask observers the following questions to think about during the role play and for discussion afterwards:

- In your opinion, what were the problems in this situation?
- Were the problems resolved? How? Or why not?
- What lessons did you draw from this role play?

10 MINUTES

4. Call players in and conduct the role play. As the trainer, only intervene if the players are having difficulty. Wait until at least the second lull in action occurs before stopping it. The presentation should last between 5 and 10 minutes only.

10 MINUTES

5. Allow actors to respond first to the following questions:

- What problems were you facing?
- How did you feel in your role?
- Were there any surprises for you?
- What did you learn from this situation?

15 MINUTES

6. Now **allow observers a chance to respond** to the questions stated in step 3.

Ask if there are any other general questions or remarks about what happened in this role play.

Ask if Trainees learned anything new about guinea worm during the presentation. Did they learn anything about how they might deal with a similar situation in the field?

7. If time permits, and interest continues among participants, you can **conduct a second role play** or repeat the same one using a different format and different players.

8. **Thank** all players and observers for their participation.

In the neighborhood....

(A SAMPLE ROLE PLAY)

HEALTHY MAN

You are coming home from a day in the fields with your wife and you are very pleased with the growth and quality of your crops. You are especially grateful because before this year you had guinea worm and were barely able to work during the important planting season. Your entire family suffered because there was very little to eat and no money to buy medicine or clothes or even to send the children to school. Although you used to believe that guinea worm was a natural part of the body that came out when it smelled other guinea worms, you are now convinced that the health workers were right when they explained that guinea worm comes from drinking water that is contaminated with worm larvae. Since last year you have been very careful to drink only water that is filtered first. Your wife and children always filter the pond water into the drinking jar at home and you always take a plastic jug of filtered water with you to the fields. This year no one in the family has guinea worm, so you are convinced and determined to continue to filter your water.

On your way home, you pass the house of a neighbor that is suffering several guinea worms at the same time. His young son, too, is lying on a mat in front of the house, unable to walk, unable to help his family in the fields, and unable to go to school. You try to explain to them what made the difference for you.

HEALTHY WOMAN

You are coming home from a day in the fields with your husband. You have a basket of early potatoes that you just harvested from your field. For the first time in three years no one in your family has guinea worm. You continue to filter water at home and drink only filtered water in the fields, but you are concerned with the continual contamination of the pond by others who still have guinea worm and visit the pond for bathing, doing laundry, or for gathering drinking water.

As you walk past the house of neighbors who are suffering guinea worm, you stop to talk with them about why they still have the disease and why you don't want them to go near the pond water. You insist that they try to stay away from the pond and that you will send your eldest son to help them bring buckets of water for bathing. Before leaving, you give them some of your potatoes and assure them that if they filter their drinking water and stay away from the pond, they will be able to have a healthy crop again next year.

MAN SICK WITH GUINEA WORM

You have several guinea worms coming out of your feet and legs and you are weak from not eating well and not being able to sleep. Your son is also sick with guinea worm on a mat next to you. You have an older daughter who went to the market in the next village to sell her embroidery work so that she could buy food for the family to eat. Your neighbors are walking by after a day of work in their fields and you are reminded of what you do not have and will not have because you cannot work your fields at this time. You believe that the guinea worm in your family is the result of an angry local god who saw how badly you treated your wife last year. She has gone away to live with her family in another village. You resent the advice of your neighbors who are doing well and who believe that you can prevent guinea worm through your own behavior. You are treating your guinea worm sores with a mud pack mixed with plant leaves recommended by a local traditional healer. A few of your sores are inflamed and infected.

While you are talking with your neighbors, the local Peace Corps Volunteer arrives to treat your sores. After some discussion that makes you angry, you refuse to let him treat you and you announce that he understands nothing about what really happens in the village. As you struggle to get up, you tell everyone that you are going to the pond to wash and bring some relief to your painful sores.

YOUNG BOY SICK WITH GUINEA WORM

You have guinea worm on one of your feet and you cannot walk without a staff to help you. You have missed weeks of school and will not be able to pass your exams next month. You remember a teacher last year who explained that guinea worm was waterborne disease and that everyone should filter their drinking water and be sure not to walk into the pond with a guinea worm sore. You didn't pay much attention because you thought guinea worm disease was hereditary and you wouldn't get it. Besides, your mother and sister were responsible for getting water to the house.

There was much trouble at home last year between your parents, and you were not sure if the water in the jar was filtered or not. You now wish you had filtered it yourself to make sure. You have tried to explain to your father, who is also sick with guinea worm, that he should not go into the pond with his sores because the water will be unsafe for them to drink and they may get the guinea worm again. But your father will not listen. He believes that guinea worm is caused by witchcraft or angry gods and he gets angry when you tell him you don't believe that. You refuse to use the traditional mud pack to treat your guinea worm sore as your father does.

PEACE CORPS VOLUNTEER

You have some public health training and you know about guinea worm life cycle and how to prevent it. You have recently suggested that the village committee assign someone to guard the local water source to prevent anyone with guinea worm from entering and recontaminating the pond. You have spoken to many of the village women about filtering drinking water and asked them to teach their sons and husbands to filter as well. You have invited everyone to attend a filtering demonstration after the mass on Sunday.

You arrive at the home of someone with several guinea worm sores. There are neighbors present discussing how the family contracted guinea worm and what they should do about it. You greet everyone and join the conversation trying to confirm what the others are saying. You offer to assist the man with guinea worm to wash his sores and apply antiseptic, but he has become angry with the conversation and refuses your help.

Guinea worm graphics

Graphic 1 - Family without guinea worm

Family without guinea worm



(In this graphic, the father heads to work in the fields, the mother goes to get water, and the child is happy to be going to school.)

CONSIDERATIONS:

- Note that the man and the small boy are carrying bottles of filtered water with them.
- Note that the woman is carrying a cloth filter with her to the water source where she will filter water directly into her jar. As a precaution, she could filter a second time when she arrives at home to pour water from the small jar into the large family jar. The filter should be rinsed out with clean water after each use.

Graphic 2 - Family suffering from guinea worm

Family suffering from guinea worm



(In this graphic, an entire family is confined to home with guinea worm disease)

CONSIDERATIONS:

- No one is able to work in the fields. The family will not be able to produce enough food to sustain themselves for the year.
- The house and yard are not maintained, causing unhygienic conditions that lead to many common illnesses.
- The woman is not able to accomplish her domestic work which probably means the family is not eating well. Small children are not being taken care of (perhaps missing vaccinations) and a general unhygienic condition exists.
- The children are not able to attend school for months at a time and often drop out for good.
- There is much pain and suffering for everyone in the family.

Graphic 3 - Prevention of guinea worm disease

Prevention of guinea worm disease



(In this graphic, a woman filters water for her neighbor who has guinea worm.)

CONSIDERATIONS:

- The filter or cloth should be checked for holes before each use.
- The filter must be on the jar correctly to avoid accidental contamination.
- The filter must be removed carefully to avoid accidental contamination.
- The filter must be shaken out (away from filtered water jar) and washed carefully after each use.
- The jar with filtered water inside should be covered to protect it from dirt and insects.
- Fetching water for an infected member of the community helps prevent the recontamination of the water source by keeping those sick with guinea worm out of the water.

Graphic 4 - Prevention of guinea worm disease

Prevention of guinea worm disease



(In this graphic, a man, while working in the fields, filters his drinking water.)

CONSIDERATIONS:

- The filter or filter cloth should be checked for holes before each use.
- The filter must be on the jar correctly to avoid contamination.
- The filter must be removed carefully to avoid accidental contamination.
- The filter and small jar must be taken to the fields everyday, or stored there permanently, so that they are readily available when the person becomes thirsty.

Graphic 5 - Preventing recontamination of pond water

Preventing recontamination of pond water



(In this graphic, a woman helps a woman infected with guinea worm get water from the pond.)

CONSIDERATIONS:

- It is important to keep infected people out of the water so that their guinea worms will not be able to emit their larvae, recontaminating the source.
- It is best to construct some kind of walkway with wood or rocks so that no one has to walk into the water to fill their jars.

Graphic 6 - Health education in the community

Health education in the community



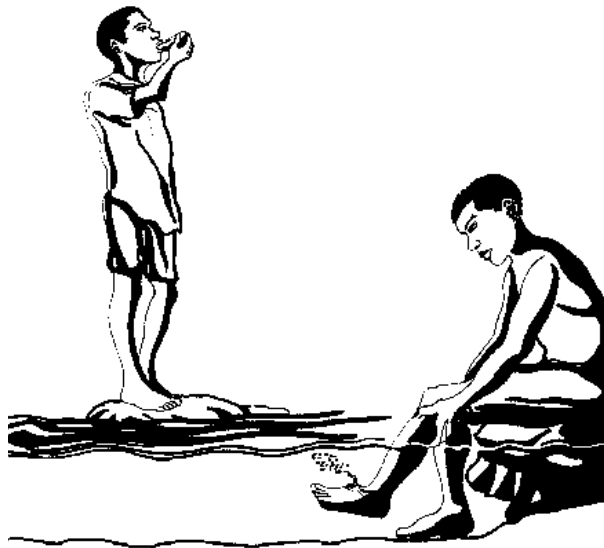
(In this graphic, a community health agent conducts an education session on guinea worm prevention.)

CONSIDERATIONS:

- Education should accompany every intervention made in the community.
- Try to involve the entire community in education sessions. The responsibility for eradication of the disease must be shared by everyone.

Graphic 7 - Transmission of guinea worm disease

Transmission of guinea worm disease



(In this graphic, one man relieves the pain of his guinea worm blister and allows larvae to contaminate the water, while another man drinks directly from the same pond.)

CONSIDERATIONS:

- When guinea worm comes into contact with water, it will emit its larvae.
- When people with guinea worm enter the pond to collect water or bathe or wash their clothes or simply relieve the pain of their sores, they recontaminate that source with guinea worm larvae.
- Anyone who drinks from a water source contaminated with guinea worm is at risk for the disease.
- No one should drink water directly from a suspect source without filtering it first.

Graphic 8* - Transmission of guinea worm disease

Transmission of guinea worm disease



(In this graphic, a woman with guinea worm collects drinking water for her family.)

CONSIDERATIONS:

- Women are primarily responsible for providing water for their families. They especially need to understand the transmission and life cycle of guinea worm.
- When guinea worm comes into contact with water, it will emit its larvae.
- Anyone who drinks from a water source contaminated with guinea worm is at risk for the disease.
- People with guinea worm should not step into the water source.

*** Graphic 8 corresponds directly with graphic 9 to show how easily the entire family can be contaminated.**

Graphic 9* - Cause of guinea worm disease

Cause of guinea worm disease



(In this graphic, the son and husband drink from a jar of unfiltered water contaminated with guinea worm that has not been filtered.)

CONSIDERATIONS:

- Anyone drinking unfiltered water contaminated with guinea worm is at risk for the disease.
- * This graphic corresponds directly with graphic 8 to show how easily the entire family can be contaminated.**

Graphic 10 - Transmission of guinea worm disease

Transmission of guinea worm disease



(In this graphic, a man with guinea worm bathes in the pond that is also the drinking water source.)

CONSIDERATIONS:

- When guinea worm comes into contact with water, it will emit its larvae.
- Anyone who drinks from a water source contaminated with guinea worm is at risk for the disease.
- People with guinea worm should not step into the water source.

Graphic 11 - Impact of guinea worm disease

Impact of guinea worm disease



(In this graphic, a man with guinea worm tells his son that he must work in the fields instead of going to school.)

CONSIDERATIONS:

- When men have guinea worm, it is very difficult for them to work in the fields. The responsibility often goes to school age children who would have to miss school, or to women who would not be able to adequately care for the small children in the family, should they take on this work.

- When children have guinea worm, they are sometimes disabled for life or they die of tetanus. They often suffer poor nutrition as an indirect result of guinea worm disease in the family, and there is often a prolonged absence from school, that is difficult to make up.

Graphic 12 - Impact of guinea worm disease

Impact of guinea worm disease



(In this graphic, a man and woman suffer guinea worm and look sadly at their unkept fields.)

CONSIDERATIONS:

- Incapacitating effects of guinea worm disease are often felt during the season of agricultural labor. The disease has a very strong adverse impact on agricultural productivity.

Graphic 13 - Impact of guinea worm disease

Impact of guinea worm disease



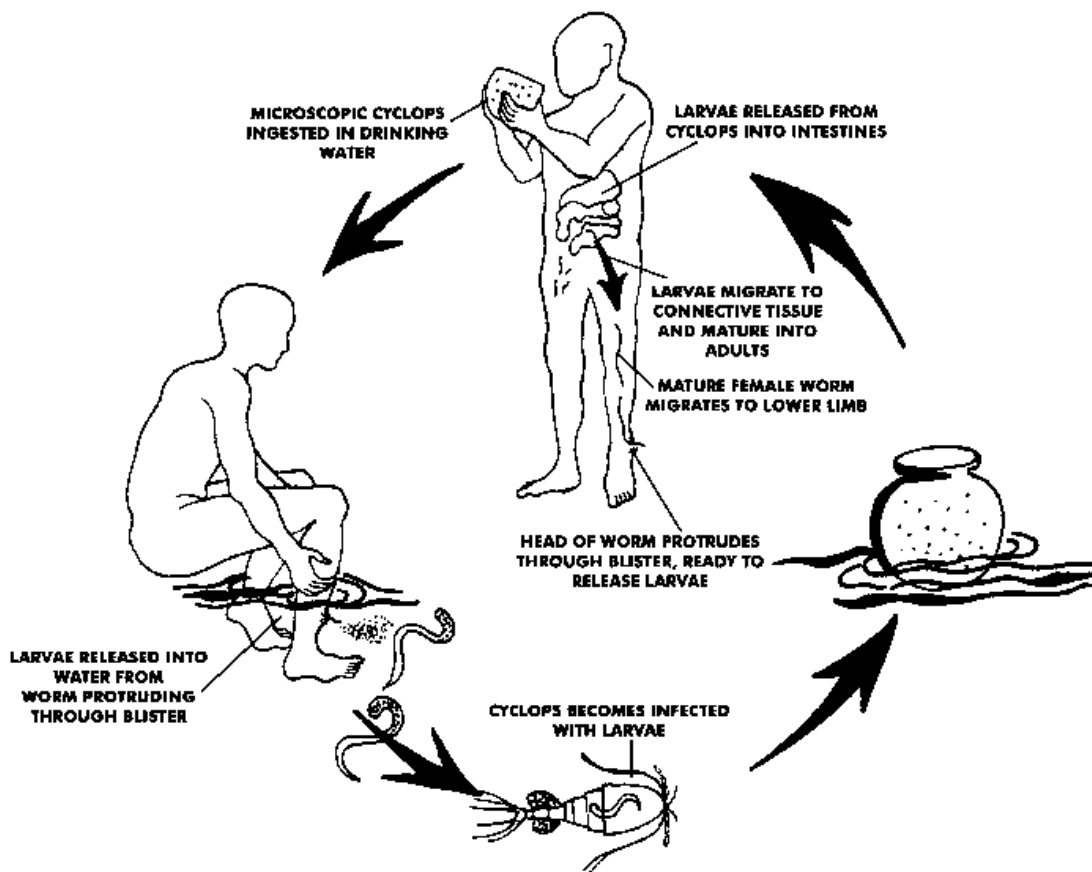
(In this graphic, a woman with guinea worm sits at home unable to take care of her children or maintain order at her home.)

CONSIDERATIONS:

- When women have guinea worm, they are often unable to take care of their homes, their children, or themselves. A link has been made between women with guinea worm and small children not receiving their immunizations, because the mothers could not get their children to the clinic.
- Women often contribute to the family's income through trading, farming or crafts, but when they are incapacitated by guinea worm, that income is lost and the entire family suffers.
- The house and yard are not maintained, causing unhygienic conditions that lead to many common illnesses.

Graphic 14 - Life cycle of the guinea worm

Life cycle of the guinea worm



(This graphic depicts the life cycle of the disease in a circular format.)

CONSIDERATIONS:

- Guinea worm enters the body when people drink water containing cyclops infected with the guinea worm larvae.
- Cyclops die in the stomach and release the guinea worm larvae to move through tissue in the intestines.

- Male and female worms mate after about three months. The male worm dies.
- After about eight months, the mature female worm moves toward the surface of the skin (usually the lower limbs).
- After about one year from the time the person drank the infected water, the worm is ready to emerge from the body. The infected person has felt no effects up to this time. A painful blister forms. Infected people try to relieve the pain by immersing the sore in the water.
- Contact with water causes the guinea worm to emit its larvae, recontaminating the water source and perpetuating the cycle of the disease.

Graphic 15 - Health education

Health education



(In this graphic, a demonstration of filtration is conducted.)

CONSIDERATIONS:

- Education should accompany every intervention made in the community.
- To demonstrate proper filtering technique:
 - The filter must be inspected before use to determine if it is damaged.
 - The filter must be placed correctly on the jar to avoid accidental contamination of the water inside.
 - The filter must be carefully removed from the jar so that cyclops don't accidentally fall back into the jar.
 - The filter should be washed after each use.

Graphic 16 - Treatment of guinea worm

Treatment of guinea worm



(In this graphic, a man washes his guinea worm sore to avoid infection. A discussion about guinea worm is going on in the background.)

CONSIDERATIONS:

- There are many traditional beliefs and customs concerning treatment of the disease. Know the local beliefs and be diplomatic in suggesting the following generally accepted treatments:

- Keep wounds as clean as possible. Wash with soap and water at least once a day. Never wash the wound by immersing it in the water source. Use a container of wash-water instead, and do not throw water back into the source.

- Suggest cleaning the wound with antiseptic before applying any traditional oils or herbs.

- Apply a clean dressing if acceptable.

- Apply topical antibiotics for secondary infections.

- Relieve pain with aspirin if available.

- Obtain tetanus immunization if possible.

- Wind the worm slowly and carefully onto a match stick as it comes out. Tape or tie the stick down to prevent any unraveling. Wind a little each day until the first sign of resistance. Do not go further than that or you may break the worm-which can lead to further infection and complications.

Graphic 17 - Transmission of guinea worm disease

Transmission of guinea worm disease



(In this graphic, some school children stop at an infected pond to quench their thirst on the way home from school.)

CONSIDERATIONS:

- Anyone who drinks from a water source contaminated with guinea worm is at risk for the disease when they do not filter or otherwise treat their water.