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## FIELD NOTE

### PRETESTING MATERIALS IN MALAWI AN EXAMPLE OF IMPROVEMENT IN COMMUNICATION

Deborah Helitzer-Allen<sup>1</sup>

Lawrence Kapachika<sup>2</sup>

Stacey Lisset<sup>3</sup>

Julia King<sup>3</sup>

Trisha Droney<sup>3</sup>

and the Health Education Unit Pretesting Team

<sup>1</sup>Resident Advisor, HEALTHCOM Project, Malawi

<sup>2</sup>Ministry of Health Counterpart, HEALTHCOM Project, Malawi

<sup>3</sup>Peace Corps Volunteer, Health Education Unit, Ministry of Health, Malawi

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## **INTRODUCTION**

Through the support of the HEALTHCOM Project, the Health Education Unit (HEU) of the Ministry of Health (MOH) in Malawi currently pretests all materials before putting them into final form. The following examples of recent pretesting exercises demonstrate the usefulness of pretesting and have hopefully impressed upon the HEU staff that pretesting should remain a part of the materials development process.

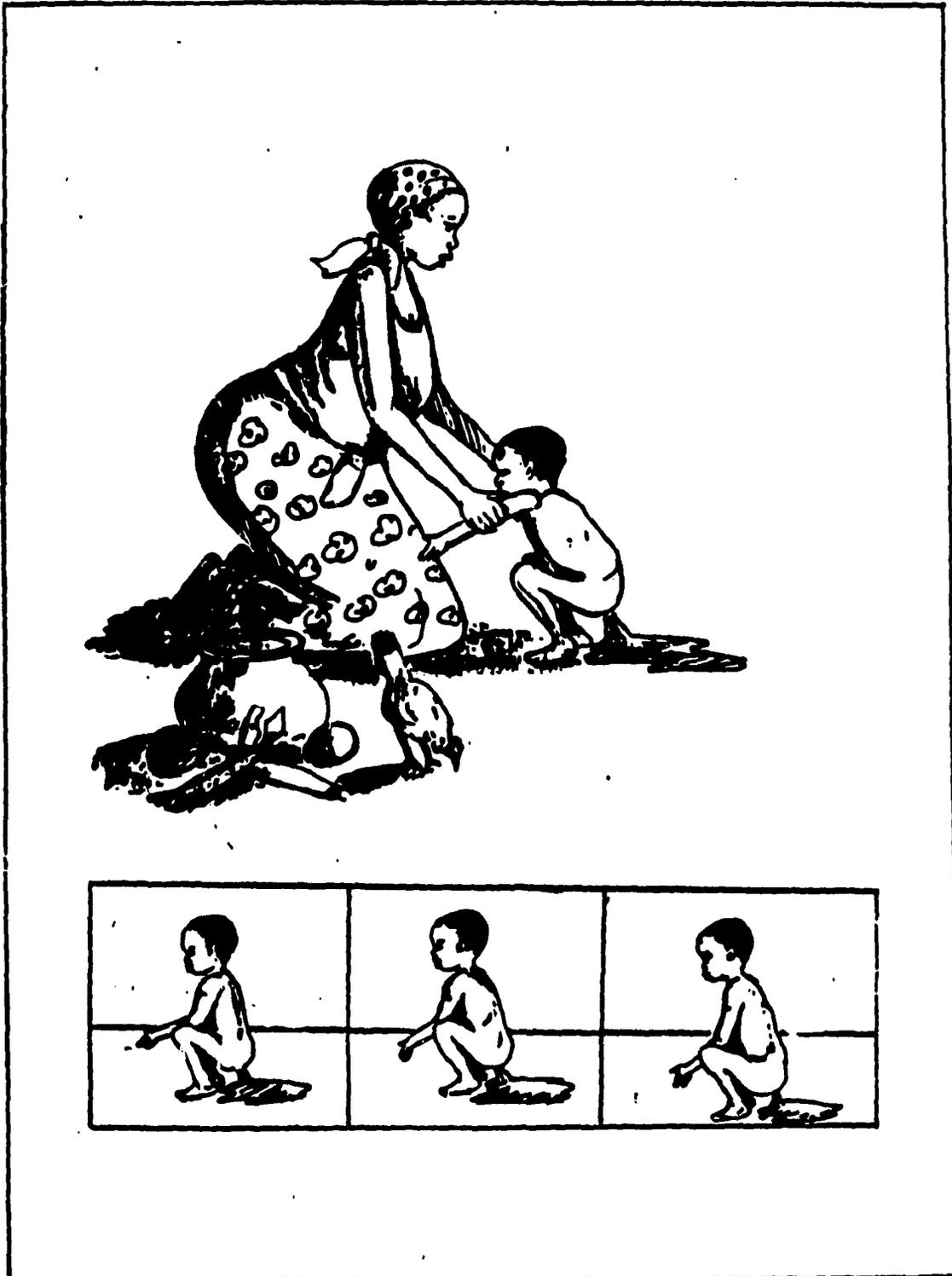
### **BOOKLET FOR PRIMARY HEALTH CARE WORKERS**

As part of the Primary Health Care (PHC) effort, the MOH is training community volunteers to distribute oral rehydration solution (ORS) to mothers when their children have diarrhea. The HEU staff created a booklet on diarrhea for these workers to reinforce specific messages from their training, and to assist them in educating the mothers of the children who received ORS. Staff members believed that education of mothers would be improved if the volunteers had visual aides to show the mothers when the treatment.

Since over 50 percent of Malawi's adults are non-literate (Ministry of Education, 1987), it was likely that some of the community volunteers who would be trained would not be able to read and write. Therefore, the HEU designed a booklet which could be understood by both non-literate and literate adults. A team of people worked closely with a graphic artist to design the important messages. Each page of the booklet is limited to one message and specific drawings are included which are meant to portray simply the important message on each page. For the sake of consistency, each time a message is repeated, the same drawing is used.

The HEU staff conducted the first round of pretesting through individual interviews with community volunteers who had already been trained by the Ministry of Health and the Malawi Red Cross to provide treatment for diarrhea in their villages. Figure one shows a series of drawings of a child with diarrhea. The message to be conveyed was that a child with diarrhea has at least three watery stools each day. The drawing shows the child purging outside; three identical pictures were used to describe the notion of "three loose stools per day."

Figure one



The pretest showed that there was no sign to signify the passing of time, and the concept that diarrhea meant three loose stools during one day. In addition, the picture of the baby purging outside the house was encouraging a bad habit; as part of the PHC effort in Malawi, community volunteers are trained to promote the construction and use of pit latrines in each household. Figure two shows the revised picture, showing a child purging inside a pit latrine, with the sun in different positions in the sky.

Figure two



## PRIMARY HEALTH CARE SYMBOL

The HEU designed a primary health care symbol to be used on all the materials for community volunteers. This included an identification plaque for the house, an apron, one-litre containers, a training manual, and special booklets on diarrhea and malaria. The MOH wanted the symbol to represent a caring community volunteer and a mother. They wanted it to be a pleasing symbol to all who saw it, and hoped that trained volunteers would proudly display it on their front doors. In the two booklets developed to reinforce the training on malaria and diarrhea, the symbol is used at the top of many of the pages as a signal to the volunteer. In this case, the symbol is meant to indicate that the message on that page is important information which should be shared with the mother.

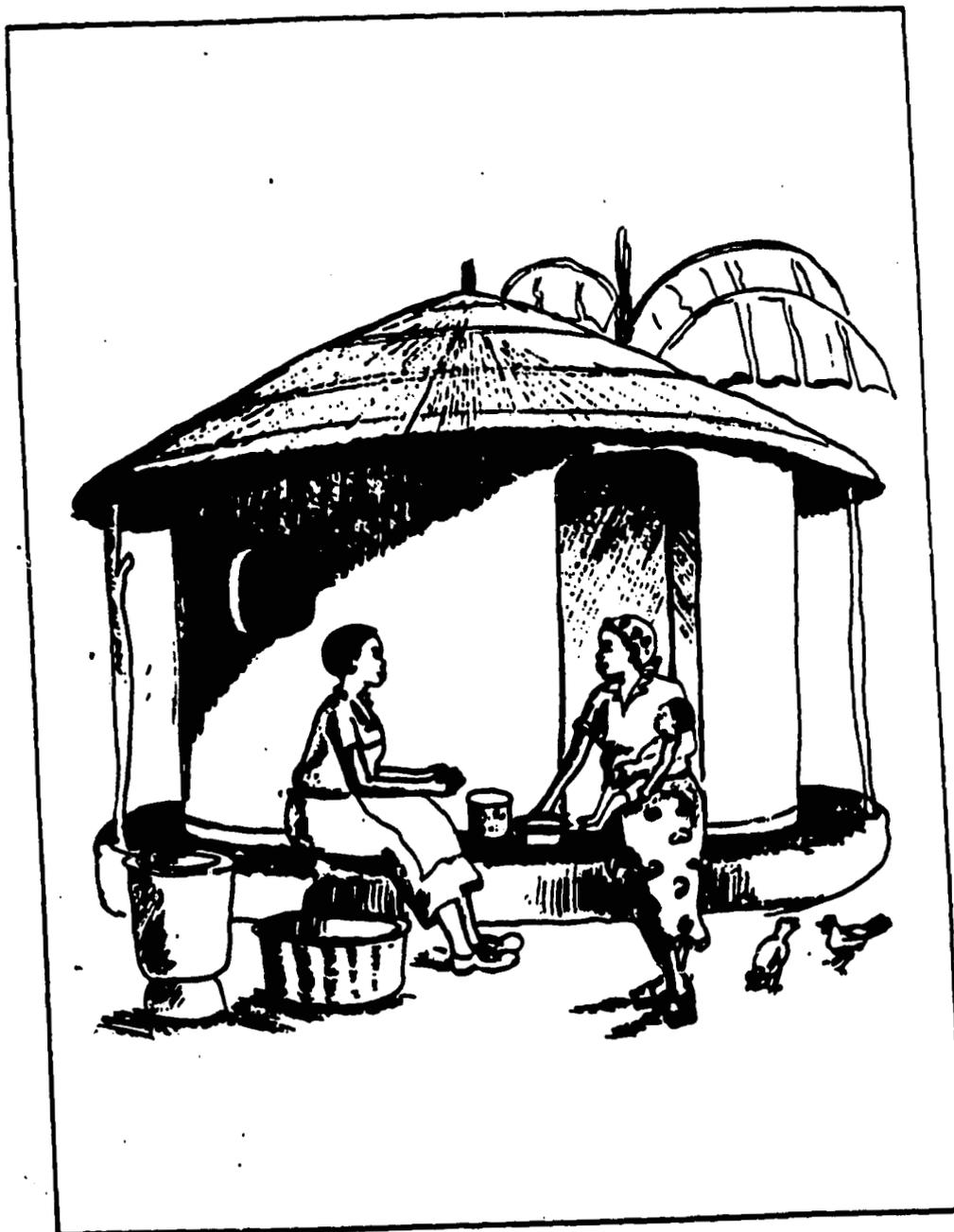
Figure three shows the the initial design for the symbol, or logo. It depicts a community volunteer standing behind a table containing ORS supplies, talking to a mother with a baby. Trainees who participated in the pretesting noted that the community volunteer was standing on one side of the table and the mother was standing on the other. They claimed that this would never happen. In fact, any interaction between a community volunteer and a mother would take place sitting down, on the khonde (front porch) of the mother's or volunteer's house. The volunteer would not be pointing at the mother, but instead would be reaching out both her arms--a common symbol in Malawi for caring and concern. However, it was agreed that the volunteer could be portrayed as a woman, even though in many viilages men would be selected to be volunteers for their community.

Figure three



Figure four shows the revised symbol. HEU staff pretested this revised symbol through individual interviews and received positive responses. Many people commented especially on the smiling faces of the mother and the community volunteer, implying a good experience for the child.

**Figure four**



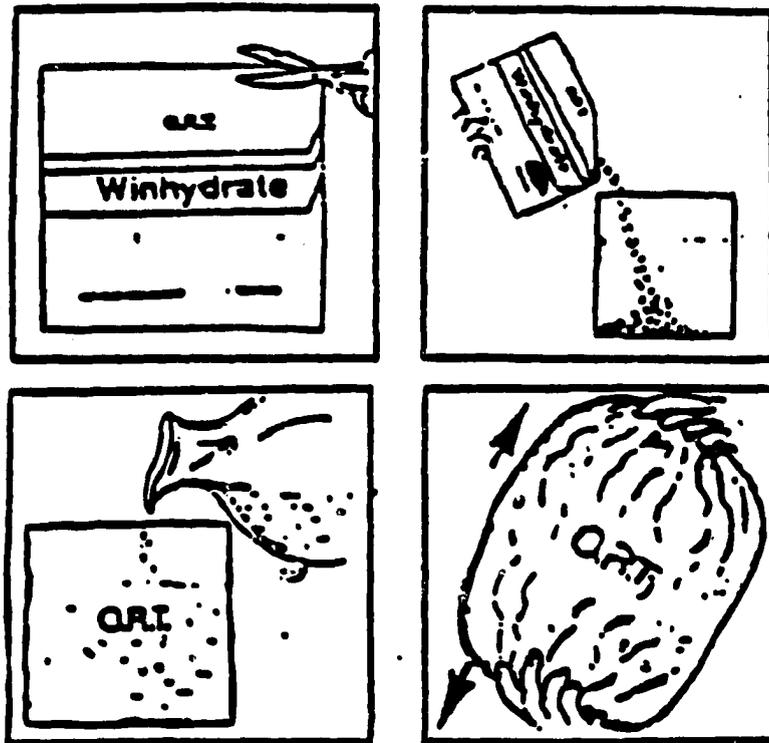
## WINHYDRATE<sup>R</sup> PACKAGE INSERT

The staff of the HEALTHCOM Project was asked to assist Sterling Products International to pretest their WINHYDRATE<sup>R</sup> package insert. WINHYDRATE<sup>R</sup> is a new Oral Rehydration Solution which was about to go on the commercial market when HEALTHCOM received a copy of the insert text.

Prior to this launching, there had not been an ORS product on the commercial market in Malawi. All ORS sachets had been limited to the health facilities, and mothers were not given sachets for use at home. One of the reasons for this was the absence in the communities of a consistent size container in which to mix the solution. Sterling Products had anticipated the problems caused by the requirement of a one-litre container by including a plastic bag with each sachet in which the solution could be mixed. Mothers had never before mixed ORS, and it was essential that very clear mixing instructions accompany the product. Figure five shows the graphic mixing instructions on the package insert. The insert did not include written instructions along with the pictures.

Pretesting was conducted through individual interviews and focus groups at an under five's clinic in an urban area. Sterling decided that urban mothers of children under five were the primary target audience, considering the cost of the product was higher than a rural mother could afford. In addition, initially the product would have a limited distribution in the urban areas through shops which sold other over-the-counter pharmaceuticals. Results of the pretests showed that the pictures were not well understood, even by literate members of the target audience. As Figure five shows, there were no numbers nor any sign to indicate which picture to look at first, second, third or fourth. The plastic bag was not represented realistically. In fact the process of using the plastic bag would require two people: one to hold the bag and another to pour in the contents of the sachet and the water. The pictures gave no indication of how much of the sachet to use nor how much water to use, and there were no instructions on what to do with the contents of the plastic bag after the liquid had been mixed. Finally, the actual name of the product was confusing, for in Malawi, "ORS" means the liquid given for diarrhea; "ORT" means the therapy for diarrhea, including food along with all other liquids or weak porridge.

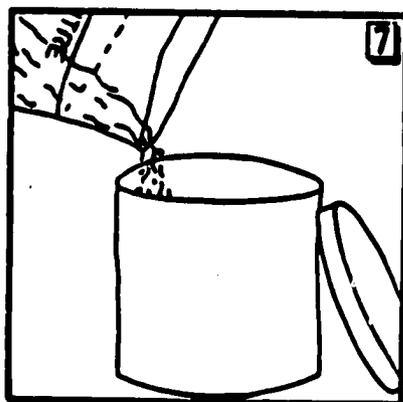
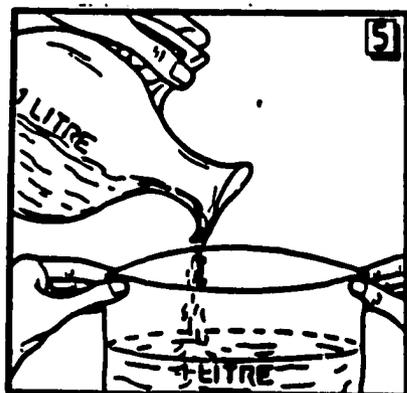
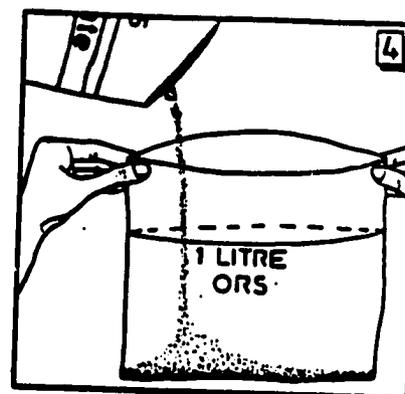
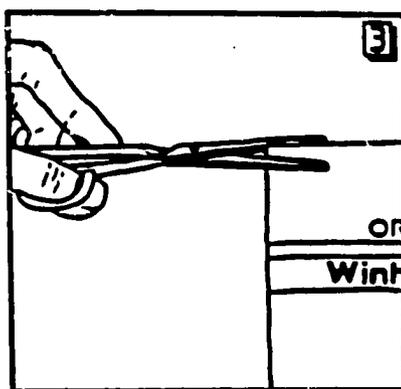
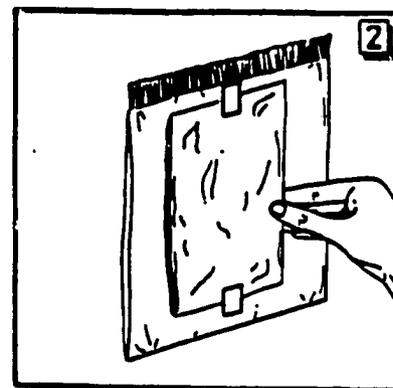
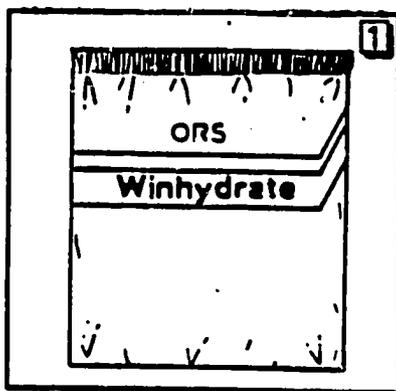
Figure five



The revised instructions are shown in Figure Six. All mentions of "ORT" were changed to "ORS." Numbers were added to the pictures, and written instructions were included above each picture. A second set of hands were drawn in to indicate the need for a second person, and the solution was shown being poured into a container for storage after mixing.

Unfortunately, the insert had already been printed and packaged before the suggestion to pretest it was made. For this reason, the product went on the market without any changes to the package insert, despite the fact that the pretest exercise showed that several important changes were needed.

Figure six



## MALARIA MATERIALS

Materials on malaria were developed for health workers to use as visual aides and pretested in six clinics throughout Malawi. Preliminary research had shown that mothers do not give their children the complete dosage of chloroquine tablets, but instead stop the treatment after the second day when the symptoms disappear. This practice is believed to be harmful, contributing significantly to chloroquine resistance. The visual aides were designed to demonstrate that parasites are still in a child's blood after the second day of treatment, despite the fact that the child feels well again.

Figure Seven shows a child who is sick with malaria. He is crying, his arms are clenched and raised to show that he is upset and in pain. During pretesting, mothers thought the raised arms represented an angry child with a "fighting spirit." They claimed that a child suffering from malaria would be too weak to raise his arms. Figure Eight shows the revision which was much more believable to the mothers. The child's arms are weak and lethargic and his face reflects pain but not anger.

Figure seven



Figure eight



Pretesting also led to changes in a drawing depicting a child with malaria parasites. In Figure nine (the initial drawing), parasites are shown in the child's body, but not in the head. This drawing actually contradicted the message that health workers were trying to communicate, and reinforced the mothers' beliefs that once the initial symptoms of malaria--a terrible headache and a fever in the head--had disappeared, the treatment could be stopped. Malaria parasites travel in the blood throughout the body, and the drawings needed to depict that clearly. Figure ten shows the revised drawing which was more medically correct, more understandable to mothers, and more acceptable from the health worker's point of view.

Figure nine



Onani kuchuluka kwa tizirombo  
tamalungo mthupi mwake

Figure ten



Onani kuchuluka kwa tizirombo  
tamalungo mthupi mwake

## **METHODS OF PRETESTING**

The HEU staff utilized several simple and straightforward techniques during the pretesting exercises. These included individual interviewing, focus group discussions, and observations. The HEU graphic artist was included during several pretests. The method used depended on the type of material pretested, the budget, time, and the content of the material.

### **Individual Interviews**

Individual interviewing is a direct pretesting technique. An individual interview is a one-on-one discussion between the health communicator and a member of the target audience. Among the examples provided in this paper, pretests of the diarrhea booklets and WINHYDRATE<sup>R</sup> package inserts were conducted using this method.

To pretest the booklets on diarrhea for community volunteers, an interviewer showed each page to a volunteer and asked her to interpret it and respond to questions about the meaning. If she interpreted it correctly, the interviewer then asked whether or not it was a helpful way to reinforce the information the volunteer had learned in her training. During the course of the discussion, the interviewer told the volunteer that the booklet needed improvement. Several suggestions, including the one discussed above, were given in response.

It is important not to ask leading questions--questions which "lead" the respondent to answer in a certain way. In the case where the volunteer didn't understand the message, the interviewer first asked probing questions to learn what message was transmitted, and only then told the volunteer what was meant to be conveyed. The interviews were concluded with a discussion on how the booklets might be improved to get the point across.

After talking to fifteen to twenty different individuals, it is usually clear whether or not the basic message is getting across; additional information can be noted on how the material could be improved. Especially important information concerns the details in the materials: where there are instructions, for example, there is often need for clarification. Another concern of the pretest is the attractiveness of the materials. Materials which are unappealing are unlikely to be used.

## **Focus Group Discussions**

A second method of pretesting, the focus group discussion, is used to show materials to a group containing five to six members of the target audience at once. This technique is often less costly and time-consuming than pretests relying upon individual interviews. The reactions of those in the focus group can be recorded in the same amount of time it takes to conduct one or two individual interviews. The danger of a group interview is that the most talkative or dominant member may become the 'spokesperson' for the group. The moderator has to work to get the reactions of other group members and thereby tone down the influence of the dominant member.

The WINHYDRATE<sup>R</sup> package insert was pretested through focus group discussions. The HEU staff gathered mothers of children under five into small groups while they were waiting to be seen at the clinic. Several focus group sessions were held at once by different members of the staff. The sessions began with a general discussion about diarrhea and prevention of dehydration. How many children had had diarrhea in the past two weeks? For how long was each episode? What were treatments for diarrhea? How much would they pay for a treatment? Once it was evident that the group was sufficiently relaxed, they were shown the package and the package insert. Each mother was asked to describe and then demonstrate how to mix the solution, using the graphic instructions. After all of the mothers had responded, the discussion centered on how the instructions could be improved.

A note taker and a tape recorder are used for the focus group discussions to take down all the responses. In this case, three to five focus group discussions were sufficient to understand that the instructions were not clear and to determine ways in which they could be improved.

## **Observation**

A third method of pretesting involves direct observation. To pretest the malaria materials, staff of the HEU sat among group of mothers at an under-five's clinic during health education sessions when the sample materials were used. The staff members were able to observe whether the health workers used the visual aides correctly and whether the mothers responded positively to them.

It was apparent that mothers were confused by the picture of the child with the malaria parasites everywhere but in the head. During the discussion between the health

worker and the mothers, one mother suggested that the child was no longer suffering from malaria because there were no parasites in the child's head. Had the pretest team not witnessed this, it might have been more difficult to determine how the message was confusing the mothers.

Since the walls of most clinics are decorated with pretty posters, the clinic, health workers reported being comfortable with "using posters" for health education. However, the observation exercises demonstrated that most health workers do not use the poster correctly in their health education efforts; without explanation to non-literate women, the poster was an ineffective tool for communicating information. While health workers were open to trying new materials, the observation showed that the materials needed to be easier for the health worker to use. One goal of the pretesting exercise was to learn whether the materials were awkward or unwieldy, and if so, how they could be improved.

### **Using a Graphic Artist during Pretesting**

Materials are often designed by literate health professionals and artists, but are meant for target audiences who are non-literate. The information is most often illustrated through one-dimensional line drawings or pictures. Non-literate people often have trouble interpreting line drawings. While literate people are accustomed to relating one-dimensional pictures to three-dimensional objects, people who have not been trained to read have difficulty making this transition. Bringing the graphic artist along on the pretest exercise allows the artist to listen to the responses of the target audience members and to change the drawings accordingly. Involving the graphic artist in the pretesting exercise also helps the artist to see how the pictures can be improved for the next assignment.

An artist was present during the pretesting of the malaria materials. By bringing his supplies and the original artwork to the pretesting site, he was able to make changes on the spot to accommodate the responses of the target audience. The revised drawings were then pretested immediately. While this took a little longer (it was necessary to allow time for redrawing), it eliminated another round of pretesting because the pictures were successfully changed with the help of the target audience.

When a graphic artist is included in a pretesting exercise, either individual interviews or focus groups can be used. Depending on the time allotted for the pretesting exercise and the type of material being pretesting, one method might be more

preferable than the other. The options should be discussed by the pretesting team, including the graphic artist. It often makes sense to spread the pretesting exercise over several days, to allow the artist time to redraw the pictures at the end of the day, in order to pretest successive versions.

## **DISCUSSION**

In the health communication process, specific and sometimes complicated messages are transmitted through art. Even simple ideas are difficult to communicate through drawings. Often a drawing may convey the primary intended message, but subtle aspects of the drawing may communicate contradictory or inaccurate information. Most artists are not accustomed to looking for these details. They need to learn that the pretesting process is an essential step to ensure that the desired message is being conveyed.

Equally important, communication planners need to be convinced that pretesting is a valuable exercise which should be promoted as an integral part of the health communication process. Most health communicators would readily agree that pretesting is an essential step in the development of health education materials. In reality however, in the developing world, health communicators seldom pretest messages or a set of materials before final production. Some communicators pretest by passing the materials to other professionals for their comments, or by taking them home to the household servant for an opinion. Professional colleagues are rarely members of a target audience. Asking for their opinions may help to gain their involvement and support, which is also important--but this should not be confused with pretesting. The household servant, on the other hand, will often be positive and complimentary to please the employer. There is no replacement for testing with a representative group from the target audience.

### **Why is Pretesting Rarely Practiced?**

The commitment to include pretesting as an integral part of communication activities requires, first and foremost, that realistic planning be undertaken to allow for the necessary amount of time. Many health communicators are not accustomed to writing communication plans. Often the idea for new messages or materials comes from a superior or disease control program manager who is unfamiliar with the steps required for the development of materials. The primary requirement is: "I want this finished

within..." This usually means that the pretesting step is omitted. Health communicators need to help their superiors and other program managers understand the communication process, and demonstrate through well thought out plans how much time will be required to complete the job properly.

Planning for a pretesting exercise requires budgeting. A good pretest will take place among and with the target audience. This often means traveling beyond the city limits to areas in which the target audience lives and works. If budgets don't include funds for travel and per diems, it is difficult to follow through with plans to pretest.

Frequently health communicators don't conduct pretests because they don't have experience with appropriate techniques, or because superiors who are not health communicators have predetermined what materials will be like. They want the job done quickly; they don't want to worry about the importance of the subtleties of the message. Some superiors suggest changes even after pretesting has occurred. Health communicators who think that the pretesting exercise will not be meaningful, for one reason or another, are discouraged from pretesting.

Written reports of pretesting exercises are very rare. Even when pretesting has been conducted successfully and changes have been made, it is difficult to share the importance of this fact with those who are not directly involved. A written report can document the changes and convince superiors of the importance of the process.

## **SUMMARY**

The staff of the Health Education Unit in the Malawi Ministry of Health pretested several sets of materials developed in Malawi using different pretesting techniques. These exercises clearly demonstrated that materials and messages must be pretested to ensure that the correct message is getting across to the target audience. The pretesting process can delay the production of the materials by a minimum of one or two months. Because of this delay, it is important to plan for pretesting, to assure both proper scheduling and proper budgeting. The best time to pretest is after all professional colleagues and superiors have contributed their own ideas. Finally, a good pretest exercise is followed by a written report discussing the results and recommending changes as a result of the pretesting process.