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# **EDUCATION IN HEALTH**

**AGENCY FOR INTERNATIONAL DEVELOPMENT  
WASHINGTON, D.C. 20523**

## **PREFACE**

The material in this publication presents the group thinking of a number of health workers of various professional skills, who participated in a health education conference in the Philippines in 1962.

Making planned education an integral part of health programs is the central theme.

The booklet is designed as a training aid and handy reference for the use of health workers everywhere. The content is written in a simple style so that it can be translated into the local language of the countries desiring to do so. A glossary is included, as an Appendix, to assist those who may be unfamiliar with certain English phrases.

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## INTRODUCTION

### BACKGROUND

The Asian Health Conference was held at Taal Vista Lodge, Tagaytay, the Philippines, in November 1962. It was financed by USAID Far East Regional Training Fund and by the AID missions in the participating countries. The Philippine Department of Health provided equipment, materials, and administrative support, and a participating staff.

Thirty-one health participants of various professional skills—from Cambodia, Thailand, Indonesia, Vietnam, the Philippines, and Nepal—made up the conference group. Four USAID and seven Philippine health educators served as participating staff advisors during the conference.

In advance of the conference, questionnaires were sent to the participating countries. The questionnaires asked for ideas in planning the conference. The answers supplied by the participants were used by a planning committee as a basis for outlining the four study areas and for drafting the discussion guides.

### ORGANIZATION OF THE CONFERENCE

The questionnaires showed that the four most important health program areas were: (1) Malaria Eradication, (2) Environmental

Sanitation, (3) School Health, and (4) Maternal and Child Health.

The conference was conducted as a workshop. All participants and participating staff were assigned to a work group, and each of the four groups took responsibility for studying *one* of the health program areas. For example, one group worked on environmental sanitation, one on malaria eradication, and so on. The role of chairman and recorder in the group was rotated, so that as many members as possible had an opportunity to serve as a leader. Each group presented the results of its discussion to a general session of all participants. The additional thinking which resulted from these discussions was incorporated into each group report, thereby making it a conference report.

### DISCUSSION GUIDES

A set of discussion guides was prepared, one for each of the four general study areas. The groups developed their discussion around these guides. The first of the study areas centered on the educational needs of health programs and the methods that might be used to prepare health workers for their health education responsibilities.

The second study area was concerned with the planning required to develop and carry out effectively the educational component of

## INTRODUCTION

a health activity or program. The groups discussed the kinds of information needed in order to develop an adequate plan. For each type of program, the people were identified who should be involved in developing the plan. Suggestions were offered about specific functions of the program administrator and the health educator in relation to the various parts of the planning process.

The third and fourth study areas required the participants to apply the theories they had been discussing to an imaginary but realistic village situation.

The discussion guides are printed here. You will want to refer to this section often.

### STUDY AREA I

1. What are the educational problems which must be solved if program goals are to be achieved?
2. Why do these educational problems exist?
3. In what way can the educational needs of the program be identified?
4. In what way can health workers be better prepared to accept and assume health education responsibilities?

### STUDY AREA II

1. What information is needed before developing plans for the health education component of the program?
2. Who should be involved in developing the health education plan? Why? When? How?
3. What are the specific functions of the program administrator and the health educator

- a. In diagnosing the educational needs of the program?
- b. In planning the treatment required to meet these needs?
- c. In identifying, securing the participation of, and providing training for the individuals and groups who will be responsible for carrying out the treatment plan?
- d. In providing the educational tools that these individuals and groups will require to support their health education efforts?
- e. In identifying behavioral symptoms which arise in the operation of the program to permit adjustments in the treatment plan?

### STUDY AREA III

Coco Province, one of twenty in the country, consists of eight districts with a total population between 250,000 and 300,000. The one major city is the capital of the province, and it is here that the provincial headquarters of governmental administration and service units are located.

Most of the people live in small villages. Bananaville, in Piña District, is typical of the villages in the southern part of the province.

Bananaville is a community of approximately 985 people, who live in 140 households. At the usual small shops, the villagers buy supplies during the week. Merchandise handled includes sugar, matches, tobacco, soft drinks, a few canned foods, and kerosene. At least every other Saturday, a member of each family must make the 1½-hour trip to the provincial capital to buy other necessary items.

Bananaville has no electrical power, but a generator has been ordered for the school. The money for the generator was raised by conducting a local lottery and by asking for cash donations from the villagers. At least 30 percent of the households have transistor radios; the favorite station is in the capital. A weekly newspaper is published in the provincial capital, but less than a dozen copies reach Bananaville. Comic books are popular, and new ones find their way to the village children after the weekly shopping trips to the provincial capital.

The villagers receive their main source of income from rice, but this income is supplemented by the sale of bananas, coconuts, eggs, citrus fruits, and milk. Bananas are cut weekly, packaged, and loaded on trucks which carry them to a cooperative shed located in a community called Papaya. There the bananas are sold to buyers who send them to the provincial capital. The other products are handled in a similar manner.

Papaya, about 20 kilometers from Bananaville, is on the main highway which leads to the provincial capital. The road between Bananaville and Papaya has an all-weather surface. The Piña District Health Center is in Papaya.

Many young boys, 10 years old and over, are kept home from school at least 1 day a week to help with banana loading. Women also help with the packing and loading of bananas, and with the work in the rice paddies. The pre-school children are cared for by an elderly woman of the family or by one of the young girls when the mother must be away.

In Bananaville, there is a five-room elementary school attended by 168 children, 60 percent of those who should be in school. There are only 19 students in the fifth and sixth grades, so one teacher handles both grades. The four lower grades are taught by one teacher each. One of the teachers serves as principal of the school.

Three teachers live in Bananaville; the other two stay in the village during the week, but spend the weekends with their families in the provincial capital. All the teachers are graduates of a normal school located in a nearby province. As yet, health has not been introduced into the curriculum of the normal school, and the Ministry of Education has not included health in the elementary school curriculum.

Eighteen families in Bananaville have sanitary latrines. The others use the bush or the rice fields. Two sanitary latrines, accommodating four persons each, were recently installed at the school.

Most of the families get water for drinking, bathing, and other household needs from a river running along the northern boundary of the village. The village laundry is done in this river. Only one of the two water wells in the village is improved. This well is equipped with a hand pump and protected by a concrete slab. The other well is open, and water is drawn by rope and bucket. Some families collect rain water in large jars and use this supply for drinking as long as it lasts.

All families have large containers, which are rarely covered, for storing water in their homes. Usually the children are given the

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job of carrying water home for family use. Their practice is to cover the water containers with bush or twigs to prevent spilling. The school has formed a water brigade, with the older boys responsible for carrying enough water to supply the daily needs of students and teachers.

It is said that most people prefer water from the river or the open well because of a common belief that water is safer if the sun shines on it.

Even among the poorest families of the village, each person has his own bowl or plate, a spoon, and a cup for tea or coffee. All members of the family usually use the same gourd or dipper for water.

Meat proteins are not readily available. Saltfish is imported and is expensive; it is preferred, however, to fresh fish caught in the river. Breadfruit, bananas, and coconut are commonly eaten, but the few citrus fruits grown by the villagers are sold for additional cash. Almost every family has at least one water buffalo, and some families have chickens. The milk and eggs are used on special occasions only. Usually these products are sold in the market.

Most of the babies born in Bananaville are delivered at home by local women. Two of these local midwives recently attended a training program conducted by the provincial health staff. The most respected and popular midwife in the village refused to attend the training program, saying that she had been delivering babies for 40 years and did not require instruction. She encouraged the younger women to take the

training, however, because she felt she was too old and too busy to teach them herself.

At one time malaria was a serious problem for the villagers. After the government began a DDT spraying program 3 years ago, the fevers which had caused so much illness began to disappear. At first the spraying program was very popular because the insecticide seemed to get rid of many insects. Lately, however, the villagers have complained that the insecticide is not as good as it was at the beginning of the program. Many families are bothered by bedbugs, and they say that flies seem more numerous than ever.

After the last visit of the spraymen to the village, a favorite pet of the headman died. The headman claims that the DDT spray killed his pet, and he has hinted that he may not let the spraymen return to the village. Some of the mothers will be pleased if he refuses to permit the malaria workers to return to Bananaville because they do not like to move furniture and clean up the mess made by the spraymen.

Blood samples have been taken of the small children so often that, everytime the malaria workers who take these samples come to the village, the children begin to cry and to run and hide. This causes such a problem that those caring for the children would be happy if the spraying and blood sampling activities were stopped.

There is a rumor in the village that the people who take blood samples are selling the blood and keeping the money. One of the medicine men in the village has tried to

convince the people that this is not true and that they should continue to have their houses sprayed and take the medicine which the village health worker gives them when they have a fever. The other medicine man does not agree. He claims that the chills and fevers that the people used to get have disappeared as the result of his special medicines and offerings, and not because of the spraying or the medicine given by the government.

The malaria workers first came to the village 3 years ago. Before that, the only regular medical services provided by the government were those of the village health worker who ran the dispensary and first aid station. He had been trained to give first aid and to give out only simple medicines.

About a year ago, a sanitation aide was assigned to work in the village. Under his direction, the one village well was improved, and the sanitary latrines were installed at the school and at 14 of the 18 houses which now have this facility.

A nurse-midwife from the Piña District Health Center began to make regular visits to the village about a year ago. She holds clinics and visits homes 2 days each week. She sees prenatal and postnatal cases and advises mothers on how to care for newborn babies and preschool age children. It was because of her efforts that the two local midwives were permitted to go to the provincial capital to take the 6-weeks training course.

Seven months ago a physician from the Piña District Health Center began weekly visits to the village. He conducts clinics at

the dispensary where he is assisted by the nurse and the village health worker.

The doctor says that at least 75 percent of the villagers who come to him are suffering from stomach or intestinal disturbances. He estimates that 70 percent of the village population have hookworms and other parasites including round worms and pin worms. Typhoid outbreaks occur from time to time, and bacillary dysentery is always present. The infant mortality rate is high. Most of these deaths result from some type of gastroenteric disease. Whooping cough is a serious problem among the pre-schoolers.

Many mothers complain that their children are subject to "wormfits." The majority of the youngsters from Bananaville who are admitted to the hospital in the capital city are dehydrated or have severe anemia. The number of cases of tuberculosis and venereal disease is not known, but the doctor suspects they are numerous.

The nearest hospital is in the provincial capital, 50 kilometers distant. Emergency cases, such as complicated deliveries and accidents, are accepted at the Piña District Health Center (20 kilometers distant) which maintains four beds.

The provincial health department supervises and provides special services to eight district health centers. In addition to hospital personnel, the Coco Provincial Health Department has a professional staff as follows: one health officer, one epidemiologist, one statistician, one chief nurse, two public health nurses, one sanitary engineer, two sanitarians, one health educator, and one MCH specialist (physician).

## INTRODUCTION

The Piña District Health Center provides services and staff for Bananaville and 22 other communities with a total population of 55,000. The Center has the following staff: two physicians, four nurse-midwives, two nurse aides, two sanitarians, and one laboratory specialist. One physician and one nurse aide are on duty at the Piña District Health Center at all times to care for the bed patients and emergency cases.

The malaria program and the BCG program are conducted by special staff. All other governmental health services available to the people in Bananaville and other communities in the district are provided by the provincial and district health facilities and staffs.

The malaria eradication program has an office and staff located in the provincial capital. The organization consists of an Office of the Chief and Divisions of Epidemiology, Entomology, Administration, Operations, and Health Education. A full-time health education worker is in charge of the health education division.

*The problem:* You are the health educator working on the staff of the provincial health department (or on the staff of the provincial office of the malaria eradication program). Although there are eight districts in Coco Province, your program administrator has agreed that for the next 6 months you can give your attention to programs being carried out in Piña District. He has agreed that you can spend the equivalent of a full week each month with the staff of that district. In turn, the Piña District health officer (or malaria chief) has requested that you con-

centrate your efforts by helping his staff with the program in Bananaville. (*Please Tell in Detail What You Would Do.*)

## STUDY AREA IV

Please keep in mind that you are still acting as the health educator on either the provincial health staff or on the provincial malaria staff of Coco Province, and that you are helping with a program in Bananaville.

A. During the development and implementation of program plans for Bananaville (Study Area III), it was decided that certain educational tools would be required to support the educational component of the program.

1. Please describe one of the tools you decide would be appropriate for use in helping the health staff gain a better understanding of their opportunities and responsibilities in the health education component of the program.
  - a. Why did you decide to use this particular tool?
  - b. What is its purpose?
  - c. Where or how would you get it?
  - d. What is its content?
  - e. How would you determine whether it is suitable?
  - f. How would you use it?
2. Please describe one of the educational tools to be designed for use by members of the health staff or other persons who are helping carry out the educational treatment plan of the program.
  - a. Why and by whom was this tool selected?

- b. What is its purpose?
  - c. How and with which individuals or groups is it to be used?
  - d. Who will use it?
  - e. What is its content and how was this determined?
  - f. How will it be determined that the tool is suitable for the purpose for which it was designed?
  - g. How will the tool be distributed?
  - h. How will those who are to use it be trained to use it properly?
  - i. How will its effectiveness be evaluated?
- B. As another part of the planning and implementation of the program for Bananaville (Study Area III), it was determined that it would be important for all the people who are involved in carrying out the educational treatment plan to know how to recognize and report significant be-

havioral symptoms which arose during the operation of the program.

- 1. How would it be determined what symptoms these individuals should look for?
- 2. How would they be trained to look for the symptoms?
- 3. How would you get the information from them?
- 4. How would you evaluate the information they provide?
- 5. If an evaluation of the symptoms reported indicates the need for adjustments in the program, how would you go about making the adjustments? Please give a specific example of an adjustment which became necessary during the initiation or operation of the program in Bananaville and tell what you did.

# A Malaria Eradication Program



## A MALARIA ERADICATION PROGRAM

STUDY AREA I: *How program administrators and health educators can effectively help other staff gain an understanding of health education.*

### INTRODUCTION

Malaria eradication is now being attempted on a world-wide basis. Each of the countries represented at the Asian Health Education Conference is actively carrying out a program designed to eradicate the disease. In each of the countries, however, some people are resisting the eradication programs; and these people are the very ones for whose protection the programs have been undertaken. Resistance problems occur during all four phases of the program: preparatory, attack, consolidation, and maintenance. But the problems become more serious after the people have had some experience with spraying operations and case-finding activities.

Described on the following pages are the activities of the four phases of the eradication program and the actions expected of the people and malaria staff during these phases. In addition, descriptions are included of the problems which have arisen in getting people to take the necessary actions and some of the reasons for failure to get their help.

### PREPARATORY PHASE

During this phase of the program, surveys are made to find out which areas of the coun-

try are malarious, and to decide what will be needed in terms of staff, materials, and equipment to get the job done. Blood samples are taken, the mosquito vectors (the parasite carriers) are identified and studied, houses are counted and numbered, and the spraying surfaces are estimated.

In order for these activities to be carried out, the people must let the malaria workers enter their village in order to make a count of houses, to enter their homes to measure the surfaces to be sprayed, to place a number on the front of the house, to obtain the names of all the people living in each house, to take blood samples, and to catch mosquitoes in order to identify the vector.

### ATTACK PHASE

During this phase, the activities include spraying the houses, continuing studies of the vector, and finding and treating people who have malaria. Major emphasis is given to the spraying of every dwelling in the malarious areas. This spraying is continued from 3 to 4 years. Each house may be sprayed as many as seven or more times during this period depending on the insecticide used, the number of months the mosquito is present, and the habits of the vector.



The people are expected to let the malaria workers enter their houses and spray the walls. The people are expected to leave this spray on the walls until time for the next spraying, to be at home on the day the sprayman comes to their homes, and to prepare for spraying. To prepare their homes for spraying, the people must make arrangements to have small children and animals out of the house, all objects off and away from the surfaces to be sprayed, food either covered or taken out of the house, and a sufficient quantity of water on hand to be used for mixing the spray.

In addition, during this phase of the program the people are expected to permit malaria workers to enter their homes to study

the mosquito vector, its habits, and its reaction to the insecticide used in spraying. They are expected to report any new houses which have been built in the area so that these houses can also be sprayed.

While the malaria workers are looking for cases, people are expected to allow them to take blood samples of new-born babies, small children, and of any person suspected of having malaria. They are expected also to report fever cases and to take treatment when advised to do so.

#### CONSOLIDATION PHASE

The program activities in this phase are the same as those of the attack phase, except

that the emphasis is on casefinding and treatment rather than on spraying. This phase lasts at least 3 years. During this 3-year period, every effort is made to locate and treat each case of malaria. When evidence appears that mosquitoes are still carrying malaria, the spraying activities begin again.

During this phase, the people are expected to permit the continuation of spraying when necessary, to allow malaria workers to enter their homes to take blood samples and look

for fever cases, to take treatment as prescribed, and to report all fever cases that they know about.

### MAINTENANCE PHASE

This phase begins only when malaria has been eradicated from an area. As long as malaria exists in the world, there is always a possibility that it will be brought back into areas where the disease has once been eradicated. For example, travelers and new settlers who come from areas where there are



malaria cases and infected mosquitoes can bring back the disease.

A special malaria staff is not required for the maintenance phase, because the maintenance activities of casefinding and treatment and searching for and eliminating the vectors can be carried out by personnel of the regular health services of the community.

During the maintenance phase, the people are expected to continue to report fever cases, to take medicine when prescribed, and to permit blood sampling and spraying when necessary.

#### ACTIONS EXPECTED OF THE MALARIA ERADICATION WORKERS

Certain actions are expected of the malaria eradication workers, just as the actions discussed above are expected of the people. During the preparatory, attack, and consolidation phases, the malaria eradication staff has the major responsibility for program activities. Sometimes, however, other people help by taking blood samples, reporting fever cases, and distributing medicine. These people may be members of the local health staff or volunteers from the community.

The staff and volunteers are expected to perform their assigned duties in a prescribed manner and to keep an established time schedule. It is important that they be able to explain how their duties will help to eradicate malaria and that they establish and maintain good relations with the people they contact while performing their duties.

#### IDENTIFYING EDUCATIONAL NEEDS

Unfortunately, the malaria eradication program does not progress as simply as 1, 2, 3, 4 through the four phases. Problems and needs *do* come up.

Some of these educational needs do not become apparent until the program is already underway, but most of the needs can be expected and anticipated before the program actually begins.

There are several ways to identify the needs: the first method is to make studies to find out how widespread malaria is and to find out what the people know about malaria (its cause, how it spreads, and its prevention and treatment). Studies can be made of the reports of malaria workers on the problems of human resistance which they have found in carrying out the program.

When problems arise, the malaria staff can visit the community involved. There, they can observe the situation and talk to the villagers. The staff may find, for example, that the people are not participating in the program because they do not believe that mosquitoes carry malaria.

It is helpful to learn how well the villagers have participated in other programs or community activities; if, for example, they had been enthusiastic about building safe wells, it may mean that they will be equally enthusiastic about eradicating malaria once they understand the program.

The educational needs of the program can also be identified by keeping informed of population movements. If new families

move into the community from a malarious region, these families will have to be informed about their new community's malaria eradication program, and they will have to have their houses sprayed and samples of their blood taken.

Studying people's habits will also help in identifying educational needs. For instance, if the villagers always paint their houses before festivals and holidays, the malaria staff should adjust their spraying schedule accordingly. It would be pointless to spray the homes a week before they are repainted, because the effectiveness of the spray would be lost. It is easier to adjust the spraying schedule than to get the people to give up a long-established practice.

#### PROBLEMS ENCOUNTERED IN SECURING PARTICIPATION

People usually accept the program activities of the preparatory phase. Some problems of resistance do come up but they are seldom serious. However, the attitudes that the people form during their first contact with the program personnel and their activities are often the basis for serious resistance problems that show up later. The problems and some of the reasons why they exist are discussed below.

*Improper performance of duties by malaria staff.* The malaria staff—and the volunteers who help with program activities—do not always perform in the manner expected of them by their superiors or by the people. Often this is because these workers have not had adequate or proper training.

Some perform their functions in such a careless manner that the people become opposed to the program. These workers do not understand or accept the fact that malaria cannot be eradicated unless the people want to get rid of the disease and are willing to do the things that are necessary. Many malaria workers do not understand what their activities have to do with malaria eradication, or do not know how to give accurate and meaningful answers to the questions people ask. Many do not know how to obtain the help of community leaders in explaining the program to the people.

Another reason for improper performance of duties by the malaria workers is that the time set for carrying out their activities is often so short that they find it necessary to sacrifice quality for quantity. For example, when a sprayman is expected to spray too many houses every day, he often is forced to do his work hurriedly. This can result in improper spraying of the house or careless handling of personal possessions of the householder. Also, because he is rushed, the sprayman may feel that he cannot take time to answer questions that people ask.

*House spraying is refused.* There are many reasons why people refuse to have their houses sprayed. Some of them believe that the insecticide kills pets; others say that the spray stains the walls of their houses, that it smells bad, or that it causes more bedbugs. People get tired of having their houses sprayed every 6 months. They are often resentful because, in the past, their personal possessions may have been lost or broken in the moving around that is required before

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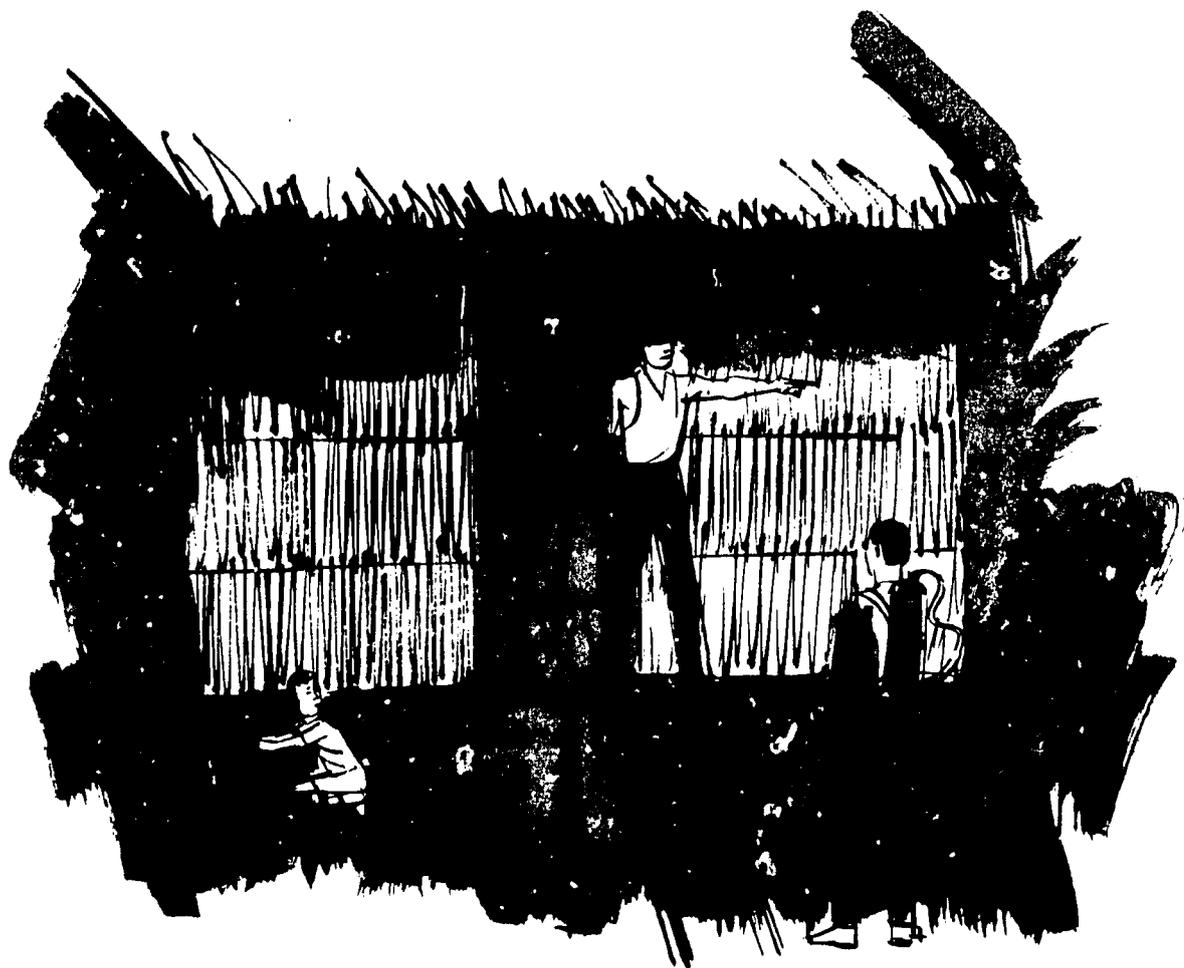
spraying can begin. Many people cannot understand why the insecticide kills the mosquito that carries malaria but does not kill other insects. Some believe that the real reason that the insecticide does not kill other insects is because the spraymen keep part of the insecticide to sell and that the mixture that they use to spray the houses is too weak. When the insecticide does not do what people expect it to do or is the cause of something they do not like, they may refuse to have their houses sprayed.

In some communities, people are suspicious of strangers and this can include the malaria worker. The people have many reasons for

not wanting strangers to enter their homes. They believe that the outsider is looking for things that can be taxed, is checking on unregistered births, or is seeking information about their political views.

Other reasons why house spraying is refused are that the people do not believe that malaria exists in their area, or they do not like the inconvenience of preparing for the spraymen. Often people do not have time to attend to the spraymen because of their need to be at work.

*Mosquito studies are refused.* People often refuse to permit the malaria workers to make mosquito studies because they do not



like the procedures which are used. To carry out the studies, the malaria worker must go to the home either early in the morning or late in the evening. In many rural areas, people get up at an early hour; just at the time that the malaria worker arrives, they are hurrying to get to their work. The people go to bed shortly after sundown and they do not like to be disturbed after they have settled down for the night.

*Blood sampling is refused.* In many cases, the reason that people refuse to have blood samples taken is because they believe that loss of blood weakens them and lowers their resistance to disease.

Some of the people do not like the procedures used in taking blood samples. They say they are afraid that, because the same needle is used on several people, they will get diseases that these other people have. Others say that the needle causes them pain and makes their finger sore.

Many people do not understand why blood sampling is necessary in a malaria eradication program. The only people who receive a report on what the blood test shows are those who have the malaria parasites. This leaves the majority of people in a community not knowing the results of the tests made on their blood. Some say that the blood taken is sold to hospitals and used for transfusions; others say that it is sold to people who use it for religious sacrifices.

*Refusal to report fever cases.* For a variety of reasons, people refuse or fail to report fever cases: some refuse because they do not want to have their houses sprayed again and believe this will be done if the fever patient is found

to have malaria; others claim that the medicine the malaria workers give to cure sick persons made them feel worse; some have more faith in the cures used by the local medicine man so they try to hide fever cases from malaria workers. Many people see no reason to report all fever cases because their experience tells them that some of these cases are not malaria. In some instances, people who have previously reported fever cases no longer do so because malaria workers did not take the action the people expected of them, and they think reporting again is useless. Many times people do not know to whom they should report fever cases.

*Refusal to accept treatment.* People have many reasons for refusing the treatment given for malaria. Some claim that the medicine causes stomach upsets and weakens them. Others say that it does not cure their sickness. People are often suspicious of the drug. At times the pill is different in size, shape, or color from that which the malaria workers first gave them, and this causes the people to believe that someone has given the malaria workers the wrong medicine and that the new pill may be harmful.

People are told that treatment is free, but occasionally persons who are not malaria workers say that they are on the malaria staff, and try to sell malaria pills to the people. When this happens, people not only lose confidence in the malaria staff, but also are more suspicious of the pills used in the malaria eradication program.

There are some people who think that the medicine given to cure malaria can be used to cure other illnesses. Some parents who

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have malaria and have been given pills do not take them because they want to save them for their children. When the drug is used to treat illnesses other than malaria and does not cure the sick children, the parents decide that the medicine is no good.

Some people believe that the cure of illness will be quicker if they take bigger amounts of the medicine than those advised. This practice has caused the death of some children. Parents blame the medicine and not themselves for the overdose and improper use of the medicine.

*Failure to complete malaria treatment.* Some people do not complete the treatment prescribed for their malaria because they forget to take the medicine or because they do not have enough of it. Some stop taking the pills when they feel better, and some decide the medicine is no good when they do not feel better immediately.

*Refusal of local health staff to accept program responsibility.* The staff of the local health service sometimes is unwilling to help with the malaria program. Often the first contact that the workers of the local health service have with the malaria eradication program is when they are asked to help with activities such as taking blood samples or distributing medicine. No one has explained the program to them or informed them that they are expected to help.

They feel that, since there is a malaria staff that is paid to do the work, there is no need for them to help. They say they are overworked already and, if they take on other jobs, they cannot carry out their regular

duties. Their reluctance to help becomes a serious problem when malaria has been declared eradicated from an area and the responsibility for the maintenance phase of the program is placed on them.

## PREPARING MALARIA WORKERS

One of the problems discussed earlier in this section was that the malaria staff do not always perform their duties properly. The staff *must* be better prepared to take on their responsibilities in malaria eradication. This can be done through several means.

*Gaining understanding.* First, the malaria workers should clearly understand the purpose of the program and how the program is to be carried out. Next, they must know exactly what their duties are and how these duties help eradicate malaria.

One of the most important points that the malaria workers must understand is this: the success of the malaria eradication program depends on them and the cooperation they can get from the people.

In addition, the malaria workers have to know *what* they are to tell the people about the program. And, they must know *how* to tell them about it. In connection with this, it is important that the malaria staff be able to speak the language of the people.

If new procedures in eradicating malaria are developed, the malaria workers should be told about them without delay. They should also know what materials they will need to do their jobs, and of course how to use these materials properly. For example, if new pills are issued, the malaria workers

must be told all about them, so that they in turn can explain to the people why the pills are a different color or shape.

*Training.* The training programs for malaria workers should stress health education and the responsibilities of the malaria workers in connection with health education. Training should be continuous; new procedures and methods are constantly being developed, and it is necessary that memories be refreshed from time to time. In all cases, training should be practical—not theoretical.

*How the administrator and health educator can help.* One important way in which the malaria eradication administrator and the health educator can help the workers gain a better understanding of health education is by supporting, organizing, and carrying out the training programs discussed above. They can also help by providing in-

centives for the staff to do their jobs well. These incentives might be in the form of additional pay for overtime work, salary increases for those who do their job in an outstanding manner, or public acknowledgment of good work.

The administrator and the health educator can make field visits to observe program operations, to learn about the problems which face the staff, and to find out what the staff is doing to solve these problems. They can help the malaria staff find the reasons why people resist the malaria program, to decide on treatment for the problems, and to help carry out the treatment plans. Other duties of the program administrator and the health educator are discussed in detail in the following section (Study Area II) under the heading "Functions of the Program Administrator and Health Educator."

*STUDY AREA II: Planning the educational component of the malaria eradication program and preparing for its implementation.*

INTRODUCTION

We know why malaria exists, how it spreads, and how it is treated. And we know that *malaria can be eradicated*. The methods used in malaria eradication are actually very simple: find the places where there are malaria cases, identify the vector, spray the homes at proper intervals with the proper insecticide, take blood samples, treat malaria cases.

Then why does malaria still exist in Asia and in other parts of the world? Why aren't these simple steps to eradication carried out? Why are people still suffering?

Because people are people. What they do not understand, they cannot accept.

And the people with whom you will be dealing understand little about malaria. Even though they have lived with it all their lives, they may not understand that a mosquito carries and transmits the parasite that causes the disease, that an insecticide will kill the mosquito, that blood samples will reveal the presence of the disease, that the right kind of pills can cure them.

The people must know and believe these things and much more. They must want to get rid of malaria before you can gain and keep their cooperation. Cooperation—it can be said with certainty that the key to malaria eradication lies in this single word. You must have the cooperation of the people you



are trying to protect, the cooperation of the government and administrators at all levels, and the cooperation of the entire malaria staff.

Cooperation will result from the proper education given to these persons—education as it relates to malaria and malaria eradication. And education, like everything else concerned with the program, must be *planned*. That is what this section is about—“planning the educational component of the malaria eradication program and preparing for its implementation.”

In the ideal situation, education should begin before any of the actual eradication steps begin. But it is never too late to start!

#### GENERAL INFORMATION NEEDED IN PLANNING THE EDUCATIONAL COMPONENT

Health education in the malaria eradication program will change from place to place and from phase to phase. But planning for it must always be based on (1) as complete and accurate information as it is possible to obtain about what people know and believe about malaria; (2) the human and material resources that will be available for carrying out the educational component of the program; and (3) the kind and amount of training that the malaria staff has had or will get to prepare them for their educational work.

The plan must assure that the appropriate health education will take place when it is needed in the eradication program. In other words, the people should learn about

spraying before spraying operations begin—not when blood samples are being taken.

Health education must be treated as an integral part of the eradication program—not as something that will be done only if there is enough time or only as a last resort if the people do not accept house spraying or other program activities.

#### SPECIFIC INFORMATION NEEDED

Before adequate plans can be developed for the health education component of the malaria eradication program, certain specific information is essential. All of the following questions should have answers:

1. Who are the target groups? For example, which people are going to be asked to give blood samples?
2. What are the attitudes, habits, beliefs, and practices of the people which have a bearing on the malaria problem? For instance, to whom do the people of the community go for medical advice and treatment?
3. What do the people believe to be the cause, method of transmission, prevention, and treatment of malaria?
4. What is their general educational level? It is important not to talk “over their heads” and equally important not to talk “beneath them.”
5. What is the social and economic status of the people?
6. What social, power, and family structures are important in the community? For example, does some one person or

- group decide whether or not a program can be carried out in the community?
7. How do the people of a particular community react toward the people of a neighboring community? If there is a spirit of competition, the people may be anxious to better themselves through malaria eradication.
  8. How do the people feel toward malaria and other health workers? If they like and trust the workers, the people are more apt to accept them, their duties, and the program. If the workers are not liked, this barrier must be put down before further progress can be made.
  9. How do the workers feel about the people? This situation has the same consequences as explained in question 8.
  10. What means are available for spreading information about malaria? Does the community receive newspapers? Is there a radio station nearby? Where do people gather to gossip?
  11. Are the people accustomed to taking part in programs to help improve their community?
  12. Do any religious customs stand in the way of successful program operation?

#### WHO IS INVOLVED IN DEVELOPING THE EDUCATIONAL PLAN AND WHY

The actions of many individuals and groups at all levels of national life have a direct influence on the outcome of the malaria eradication program. Not only is the outcome determined by the householders who decide

whether they will permit house spraying, but also is influenced by those at the highest level of government who determine whether and how well the program is to be financed. The teacher in the village may be willing to teach her students about malaria, but she needs to know that her boss—the inspector from the provincial or ministerial office—approves of her doing so.

This means that the health education effort must be effective with a wide variety of individuals and groups throughout the nation if their understanding and support is to be obtained. This understanding is best achieved when those concerned are actively involved in deciding what needs to be done and in determining what they can do to help.

Those directly associated with the malaria eradication program are involved at all levels because some can help in discovering and classifying the problems and resources, while others can interpret and support the program objectives. Some of these persons can make changes or allow the flexibility in program administration that successful implementation of the educational plan will require. The program will eventually be carried out and evaluated by some of them. Some have the means through which the target groups can be reached. Some are responsible for the training of their own workers, so they can include malaria in the curriculum.

Those *not* directly associated with the malaria eradication program are involved, too, for several reasons. Some will know all components of the program, so they will be able to supply valuable information. Others are in a position to encourage community

participation through other people working with them at the local level. Some will be able to provide equipment, facilities and personnel necessary to carry out the program. Others can help get money for the program. And some are persons who have influence on community attitudes and are regarded as authorities.

For these reasons, many people need to be involved in planning as well as in carrying out the educational component of the malaria eradication program. The following list includes some of these people.

*International level.* Malaria eradication experts and health education advisors of international agencies.

*National level.* President or chief of state; secretary or minister of health; malaria program administrator; chiefs or directors of the various health bureaus or services, such as Health Education Services, Statistical Services, Nursing and Midwifery Services, Environmental Sanitation Services, Bureau of Disease Control, Laboratory Services, etc.; minister or secretary of Education, of Agriculture, of Finance; director or chief, Community Development Services; and representatives of civic, religious, and voluntary agencies.

*Regional level.* Regional health director; chief, Local Health Services; regional malariologist, nurse supervisors, sanitary engineers, and statistician; chief, Regional Health Training Center; regional health educator; regional directors of other agencies such as Community Development, Bureau of Agricultural Extension, Social Welfare Administration, etc.; division superintendents of

schools; and representatives of civic and voluntary agencies.

*Provincial or zone level.* Provincial or district health officer; district malariologist in charge of malaria unit or malaria zone chief; provincial or malaria zone health educator; provincial health education supervisor of schools; general inspector of schools; provincial or zone chiefs of other agencies like Community Development, Bureau of Agricultural Extension, Social Welfare Administration, etc.; malaria volunteer workers; and representatives of other business, civic, voluntary, and religious organizations.

#### HOW THESE PERSONS CAN BE INVOLVED

They should be involved at every level in the planning and preparing stages of the malaria eradication program. They can be asked to serve as committee members, to attend meetings, conferences, training programs, and workshops on malaria. They should be involved in planning and carrying out the surveys and studies. But most important, they should be asked what they can do best to help in the malaria eradication program.

#### FUNCTIONS OF THE PROGRAM ADMINISTRATOR AND HEALTH EDUCATOR

In planning and carrying out the educational component of the program, the functions of the program administrator and of the health educator will often overlap to some

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degree. Each of them, however, does have certain specific duties; these are discussed below.

### DIAGNOSING EDUCATIONAL NEEDS

Both the program administrator and the health educator have specific functions to perform in order to accomplish this overall task.

The *program administrator* needs to study reports, made by the malaria workers, which are concerned with resistance on the part of the people; he needs to discuss these problems with his staff. He must keep up to date with total program needs and be willing to give full support to adjustments in program activities or any other method that may solve problems. The program administrator is the one who can authorize and support the studies which will provide information about whether the program procedures are the cause of acceptance or rejection of the program. And he makes the decision about how the workers will be kept informed of changes in procedures, of population movements, and any other occurrence important to the malaria program.

The *health educator* has several duties in diagnosing the educational needs of the malaria eradication program. First, he needs to interest the malaria staff and other health workers in identifying and reporting the attitudes and actions of people which may prevent successful operation of the program. He assists with surveys to gather important information about beliefs, customs, social structure, and communication patterns that may

affect malaria eradication. The health educator meets with malaria and other health workers to learn about the problems they have come across and to try to discover the reasons for these problems. He finds out how well the people have taken part in other health programs or community activities. In addition, he tries to learn about community practices, such as where people go when they are sick. He needs to analyze all complaints, misunderstandings, and resistance to eradication measures. Finally, he must find a way of making all this information useful for malaria and other health workers.

### PLANNING THE EDUCATIONAL TREATMENT

After the important educational needs of a malaria eradication program are diagnosed, the educational treatment is planned to meet these needs. The functions of the program administrator and the health educator are discussed below.

The *program administrator* is the one who establishes policies which allow enough flexibility in operations so the educational treatment plan can be carried out. He also provides the technical information and serves as the authority for this information.

The *health educator* needs to find out who the people are in the community who will have to be influenced before the educational treatment can be planned. For example, if blood sampling is being refused, does he try to influence the fathers, the mothers, or the children? When he discovers who the target group is (e.g., the

fathers), he must then develop some means of communicating with members of the group and find some way of motivating them to positive action. He needs to discover who in the community has the most influence on their thinking. He seeks the help of these "opinion makers" and invites them to participate in developing the educational plan.

### TRAINING THOSE WHO WILL CARRY OUT THE EDUCATIONAL PLAN

The program administrator and the health educator have certain functions in identifying, securing the participation of, and providing training for those who will be responsible for carrying out the plan.

The *program administrator* allows time in the program for identifying and training those who can assume responsibilities in carrying out the educational plan. He provides funds, facilities, and equipment for both of these tasks. In addition, he encourages the workers to take on their health education duties.

The *health educator* selects the methods of identifying the people who will be most effective in carrying out health education activities. He enlists the support of staff, community leaders and others to develop and carry out the health education plan. He finds ways of motivating all of these people to do their share in carrying out the plan. With their help, he decides how much training they will need to prepare themselves for their educational role, and

he goes on to develop the training programs. Finally, he evaluates all phases of the training program and its results, and carries out additional training when this is indicated.

### PROVIDING EDUCATIONAL TOOLS

The program administrator and the health educator have certain duties in providing the educational tools that the health workers, community leaders, and others will need to support their education efforts.

The *program administrator* provides technical information for the content, checks to be sure that accurate information is used, and provides the funds for the preparation, distribution, and evaluation of health education tools.

The *health educator* helps select, prepare, and pre-test educational aids; he gives advice about the kind, the content, the manner of presentation, and the ways in which they are to be used. He encourages the use of local, inexpensive materials to make the tools. He plans for and supervises the distribution of educational tools so that they will be available to those who are to use them at the proper time and in the quantity needed.

### IDENTIFYING BEHAVIORAL SYMPTOMS

Symptoms which indicate how the people feel about the program may not show up until the malaria eradication program is well underway. Workers must be constantly on the

## MALARIA ERADICATION—II

lookout for clues that show that adjustments need to be made in the program or in the educational plan.

The *program administrator* will need to keep the program schedule flexible enough so that personnel will have time to see, hear, and report the words and actions that indicate new problems of human resistance are arising or that old ones continue to exist. He will have to allow changes in program procedures to deal with these resistances, and he must encourage his staff to give more time and effort to the educational job.

The *health educator* prepares the malaria worker so they will know how to identify and report words and actions of people that reflect their attitudes about the program, and he helps workers to conduct surveys to learn why people are reacting as they are to spraying, blood sampling, or other program activi-

ties. He encourages and assists in organizing and conducting research studies to identify educational needs and ways of meeting them. The health educator makes regular field visits to the community to look for the reasons behind resistance or acceptance of the program. He records "unusual incidents" in the community which may shed light on changes needed in program activities or the educational approach. He develops tools and instruments to be used by the malaria workers as they look for and report on the reasons people may have for resisting or accepting the program. He studies people's reactions during "stress" or emergency situations that may arise during the operation of the malaria eradication program. And he helps plan and carry out adjustments in the program, including the educational component, which will assist in solving the problem.

### STUDY AREA III: *A health educator works with the malaria eradication program in Bananaville*

#### INTRODUCTION

The two study areas just covered deal mostly with theory and “what should be done.” This third study area is concerned with the application of theory to a realistic but imaginary situation so that the methods and procedures we have talked about can be put to use in a “practice session.”

Before going further in this section, the reader should turn back to the Introduction of the book and reread the discussion guide for Study Area III.

#### INFORMATION PERTAINING TO THE MALARIA PROBLEM

The conference group discussing this subject decided that the following information from the discussion guide was pertinent to the malaria eradication program in Bananaville.

*The community.* Coco Province has eight districts with a total population of between 250,000 and 300,000. Bananaville, which is a village in Piña District, has a population of 985 living in 140 households. The District Health Center is in Papaya, 20 kilometers distant. In Bananaville there are the usual small stores where the villagers shop during the week, but major weekly

shopping is done in the provincial capital, a 1½ hour bus trip. There is no electrical power in Bananaville, but a generator has been ordered. The villagers raised the money for the generator by conducting a local lottery and soliciting cash contributions. This indicated to the conference group that the people in Bananaville are willing to work for community improvements.

The houses in Bananaville are constructed of wood and usually consist of two to three rooms. The owner of the house, the tenant, and the owner of the land are often three different people. This is an important fact to remember, because it means that there may be as many as three persons to contact when asking for permission to spray the houses in the village.

*Communications.* At least 30 percent of the households have transistor radios. The favorite radio station is in the provincial capital. Less than a dozen copies of a weekly newspaper published in the provincial capital reach Bananaville. Comic books are popular among the village boys and girls. The villagers are of one religious faith. These facts provided the group with clues about some of the ways to get information about the program to the villagers.

*Community leaders.* The headman of

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Bananaville has a six-member council, but he usually makes decisions without consulting the council members or the villagers. Some of the younger adults resent this. The headman *does* encourage the villagers to consult representatives of the agriculture department, and he supports the 4-H Club and its members. The fact that the headman accepts the agricultural extension agent and the home economist may mean that the malaria staff will be able to influence the headman through these persons.

*Educational and financial situation.* An adult education officer from the Coco Provincial Department of Education has made plans to start a literacy program. Only 60 percent of the children of school age are in school. These facts provided a clue that the literacy level in the village is probably low.

*Malaria programs in the past and their present influence.* At one time, malaria was a serious problem for the villagers. After the government began a DDT spraying program 3 years ago, the fevers which had caused so much illness began to disappear. The group analyzing the information about Bananaville felt that at least some of the villagers must associate the reduction in fever cases with the spraying program.

At the beginning, the DDT spraying was popular, because the insecticide seemed to get rid of many insects besides mosquitoes. Now, however, many families are bothered by bedbugs, and the people say that the flies seem to be more numerous than ever. The villagers have begun to complain that the material used by the men who do the spraying is not as

good as it was when they started the program. This probably means that many people have lost faith in the effect of the insecticide as well as in the malaria staff. It also gives a clue that many people either do not understand the real purpose of spraying the walls of their houses with DDT or that they do not believe this procedure is important in eradicating malaria.

When the favorite pet of the headman died, he claimed that the spray had killed his pet, and he told some members of the village council that he might not let the spraymen return to the village. This information from the discussion guide showed that the headman has not made a definite decision as yet, and that action is necessary to prevent the announcement of a negative decision which would be difficult to get him to change.

Some of the mothers have said they will be pleased if the headman prevents the spraymen and other malaria workers from returning to the village because they are tired of moving the furniture in their houses and having to clean up the mess made by the spraymen. This information indicates that there is need to learn whether some of the spraymen have been careless and have caused unnecessary work for the Bananaville women.

When the malaria workers come to the village to take blood samples, the children run and hide; this causes the mothers to become upset. From this information in the discussion guide, it is clear that neither the mothers nor the children understand the purpose of blood sampling.

There are two medicine men in the village. One of them is in favor of spraying

and tells the people to have their houses sprayed and to take the medicine which the village health worker gives them. The other medicine man claims that the chills and fevers the people used to have, have disappeared as a result of his special medicines and offerings and not because of the spraying or the medicines given by the government. The group felt that this indicates that the one medicine man who sees value in the malaria program will be willing to cooperate with the malaria staff, while the other medicine man who views the program as a threat to his position will continue to urge the people to refuse to take part in it. The group decided that it will be important to learn as quickly as possible which of these medicine men has the greater influence with the villagers.

#### NEW ASSUMPTIONS

The conference group assigned to this study area made several assumptions before going on with the imaginary problem. These assumptions are listed below.

The health educator had been working with the malaria eradication program for 2 years. He had good working relationships with his fellow staff members, and with the staffs of the district health center and the provincial health department. The provincial health department staff had received an orientation program in malaria eradication.

Those who were concerned with carrying out the malaria program had technical training in malaria. They had also received

some training in how to approach the villagers and how to explain the malaria eradication program to them.

Information on the malaria eradication program in Bananaville was available to the staff. A meeting of the malaria and provincial health department staffs had been held. The problems which had arisen in malaria eradication activities in Bananaville had been discussed with the adult education worker, the home economist, and the agricultural extension worker.

Before this assignment, the health educator had made visits to Bananaville and had met the headman.

The remainder of this section is concerned with what the health educator did in the Bananaville malaria eradication program.

#### GOALS SET BY THE HEALTH EDUCATOR

The health educator set up five goals for his work in Bananaville: (1) to get all members of the health staff to help in overcoming the resistance of the villagers to house spraying, blood sampling, treatment practices, and other methods used in the malaria eradication program; (2) to bring about better working relationships and coordination of effort among the staffs of the agencies which provide services to Bananaville, and get their help in the malaria eradication program; (3) to find ways to help the health workers develop better working relationships with the community; (4) to assist the malaria and other health workers plan and carry out a course of action

## MALARIA ERADICATION—III

to overcome resistances to the malaria eradication program and prevent new resistances from developing; and (5) to get the cooperation and support of the community leaders in overcoming the resistance of the villagers to the program.

### ACTIVITIES OF THE HEALTH EDUCATOR IN WORKING WITH THE STAFF

For the 6 weeks that the health educator worked with the malaria and local health staffs of Piña District and Bananaville, he engaged in three principal activities: orientation, planning, and training.

#### ORIENTATION

During this period, the health educator got better acquainted with the staff and their activities. He found out how much the staff knew about Bananaville, the health problems of the villagers, and the attitude of the villagers toward health programs, including malaria eradication. He learned about the health services offered to the villagers and the extent to which these services were used. The staff members talked about how difficult it was to get the villagers to change "old" ways of doing things. As they talked and described their experiences in working with the people in Bananaville, the health educator realized that the staff needed some additional training in health education.

The staff members wanted to do a good job and were puzzled that their efforts to get the people to "cooperate" in health pro-

grams met with such limited success. They agreed that something was wrong and said they wanted to find out what it was so that malaria could be eradicated and other health problems could be reduced.

#### TRAINING

As a result of meetings with the staff, an agreement was reached that a "refresher course" on the health education component of the malaria eradication program would be held. It was decided that those who would participate in it would be the five malaria workers, the sanitation aide, the nurse aide, the village health workers, and the two nurse-midwives. These persons were chosen because they were the ones who were in direct contact with the people of Bananaville, and because of this were the ones who could do most in carrying out the educational component of the malaria eradication program.

Several objectives of the training program were decided upon. One objective was to help the staff to evaluate the educational problems which were evident or known and to learn ways of solving these problems. A second objective was to make the staff aware of their health education responsibilities and the methods they could use to carry out these responsibilities better. Another objective was to help the staff learn how to work with community leaders and how to involve them in planning and decision making about the program. The final objective was to increase the knowledge of the staff about educational aids and to help them develop

skill in selecting, preparing, and using these aids in the malaria program.

The training program emphasized malaria eradication, and included an evaluation of the more serious human resistance problems and how these problems affected the program. Also included in the training program was an analysis of what had been done and what needed to be done by the staff to solve current problems. The need for encouraging community participation was discussed, as well as the means of determining what people expect from the program. The training program also included a discussion of the concepts and principles of health education, the educational methods and approaches that might be used, and the use of tools and media in health education. In addition, attention was given to ways of evaluating facilities and resources and reaching a decision as to how they could best be used; what is involved in changing health behaviors; how to identify behavior which has important implications in the successful operation of the program; comparing the results of past programs with the objectives which had been set up for these programs; and practice in the preparation, pretesting, and evaluation of educational tools.

Methods used in the training program included group discussion, role playing, panel discussion with open forum, lecture with open forum, case study presentations, and field visits. The training was carried out in 2-hour sessions held every other day during a 2-week period.

The following is an example of how one

subject was treated using the role-playing and group discussion methods. Three situations were role-played by members of the class. In one, several of the students portrayed a team of malaria workers who failed to talk to the headman first when they went to the village before spraying operations were started. In the second situation, a team of spraymen entered a village house and did not give a proper greeting to the householder and members of his family. The third situation dealt with a malaria worker who took blood samples from school children and gave a good explanation of what he was doing.

After these situations were role-played, the other members of the group were asked to discuss the approach used by the malaria workers and the reactions of the people (portrayed by the other health workers) toward the malaria workers.

## PLANNING

After the refresher course was completed, the health educator and the staff worked on an action plan for the community.

*Selecting the target groups.* It was known that there were several key individuals in Bananaville: the headman, the village council members, the agricultural extension agent, the home economist, teachers, medicine men, the local midwives, religious leaders, and the householders.

*Motivating the people.* Motivating factors were considered for each of the individuals and groups mentioned above, because

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each would judge the value of the program in terms of what was important to him.

It was believed that the headman would be more willing to accept the program if he could be made to realize that healthy people and a progressive community would be a reflection of good leadership and administration; people who are sick with malaria cannot make money.

The school teachers could be made aware of the fact that malaria eradication would mean an increase in enrollment and regular attendance of school children, therefore a high efficiency rating for the teachers.

The agricultural extension agent might become more enthusiastic about the program when he realizes that well people are likely to be more interested and better able to adopt the farming methods he recommends.

The staff felt that the home economist would be motivated to help with the ma-

laria eradication program if she understood that she would be better able to help mothers to learn homecrafts and home management to aid the family budget and improve general family health if the mothers were not preoccupied with the illness of their families.

The absentee landlord might be more willing to accept the program if he were made aware that the people would be able to pay their rent regularly, and his income would thereby be increased.

*Communicating information to the people.* After deciding on these probable motivations for the target groups, the health educator and the staff had to find ways of getting the necessary information about malaria and the program to the people. The following table indicates the places where information could be communicated and the means that could be used to provide that information:

| Place                                     | Means  |
|---|--|
| Small shops where villagers buy supplies. | Posters, pamphlets, leaflets, spoken word.   |
| Cooperative shed.....                     | Posters, spoken word.  |
| Trucks and buses.....                     | Posters, stickers, spoken word.  |
| Place of worship.....                     | Sermon, spoken word.   |
| Radio station.....                        | Spot announcements, programs, short dramas.  |
| District health center.....               | Pamphlets, leaflets, posters, flip charts, flannel board, bulletin board, spoken word. |
| School building.....                      | Pamphlets, leaflets, posters, flip charts, film showing, organized meeting.            |
| Village dispensary.....                   | Pamphlets, leaflets, posters, flip charts, film showing, bulletin board, spoken word.  |



Knowing these means and tools, the health educator and the staff chose the ones they felt would give the best results. They decided on the message to be used, sought technical advice on the content, prepared layouts, and pre-tested the materials. The tool they selected was developed in the refresher course.

#### PLAN OF ACTION FOR BANANAVILLE

It was decided by the staff that the first step would be to make individual visits to people who could be of help or who could influence the headman and the mothers.

Next, plans would be made for a meeting of key people in the village—such as medi-

cine men, headman, school teachers, and others. The purpose of the meeting would be to inform them of the malaria situation in Bananaville. It was planned that in this meeting the positive approach would be used; this means that all the good things the villagers wanted would be discussed and related to the malaria program. For example, the agricultural extension worker could talk about agriculture and its relationship to health. The home economist could speak on home improvements and the need to be healthy to enjoy these improvements.

The third step in the action plan was to meet the members of the 4-H Club as a group and to get their support in overcoming resistance of the villagers to the malaria program.

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Finally, volunteers would be recruited to aid in convincing people to have their houses sprayed, to give blood samples, and to report fever cases.

#### CARRYING OUT THE PLAN

The health educator and staff began carrying out the plan of action. A week was spent making contacts and meeting people before the meeting of key people was scheduled.

The health educator worked with the staff in preparing plans for the meeting and the materials to be used in explaining the reasons for house spraying, blood sampling, etc. He developed also a plan for evaluating what he and the staff did during his 6 weeks with them. The evaluation would show them the progress made and the problems still unresolved, and would help the staff decide whether changes in their plans were necessary. A time table for the various activities was made.

## STUDY AREA IV: *Selecting educational tools and identifying behavioral symptoms.*

### INTRODUCTION

In Study Area III, the principles and theories that were covered in Study Areas I and II of the malaria eradication program were applied to an imaginary situation.

The problem dealt with in this section is also an imaginary situation. Again, it will help you to understand if you turn back to the discussion guide for Study Area IV in the Introduction of this book and read it again.

The discussion guide tells you that the problem for the assigned group at the conference had two major parts: (1) to select and describe some of the educational tools that they believed would help the health workers and the community leaders in Bananaville teach others in the village about the malaria eradication program; and (2) to consider the attitudes or kinds of behavior practiced by the villagers that would show that they did or did not believe that the program had merit.

The decisions and opinions of the conference group are covered on the following pages.

### WHY EDUCATIONAL TOOLS ARE NECESSARY

As explained previously, the most serious problem in malaria eradication is that of

getting the continued cooperation of the people. To get this necessary cooperation, certain information must be communicated to the people.

Ideas, facts, and knowledge can be communicated by either "audio" or "visual" methods. By "audio" we mean simply "the spoken word." The term "visual" refers to anything that is seen, such as written words, pictures, and illustrations.

Either method—audio or visual—will get the message across. But the best way to communicate to the people is to use a combination of both methods, audio and visual, to tell them and to show them. To carry out the "show" part of communication, you need "educational tools."

### AN EDUCATIONAL TOOL FOR THE TRAINING PROGRAM

*Selecting the tool.* In Study Area III, it was decided that a refresher course in health education would be held for malaria workers and members of the local health staff of Bananaville. To conduct the course, the instructors needed teaching aids to accompany their spoken words. The tool selected was the multipurpose board. There were several reasons for selecting this tool: (1) it could be used for many purposes, such as chalk board, flannel board, magnetic board,

projection screen, display board, or flip-chart stand; (2) it was not expensive; (3) construction materials were available in Bananaville; (4) it was easy to move from place to place; (5) pictures and lettering to be used as illustrations were available in newspapers and magazines; and (6) it was a way to show the staff how one tool could be used to present ideas in several ways.

*Purpose.* The purpose of the multipurpose board was to aid the spoken word in the refresher course for the malaria and health staff. It also served as a means to illustrate the different tools and media which could be used to help carry out the educational component of the program. For example, illustrations showing pictures of flip charts, bulletin boards, and leaflets were placed on the flannel board. The steps on how to select and use the illustrations were written on the chalk board on the back side of the flannel board.

*Obtaining the tool.* The dimensions of the multipurpose board were determined by the size of the group with which it was to be used. For the refresher training program, it was decided that a board 1 foot 9 inches by 2 feet 7 inches would be large enough. If the group had been larger, the board would also have been larger so that it could be easily seen from a greater distance.

The board developed for the Bananaville program had two frames made of bamboo. The chalk board was inserted in one frame. Flat galvanized metal was nailed in the other frame. One side of the metal was covered with flannel, and the other side was

painted black. The two frames were joined by two butterfly hinges.

*Using the tool.* One subject selected for the refresher course was "Tools and Media for Use in Health Education." The reason for including this subject was to increase the understanding, ability, and skill of the staff in preparing, pretesting, distributing, and proper use of educational aids. The following were some of the ways that the multipurpose board was used to present information about tools and media:

1. Magnetic board—Pictures showing the use of a flip chart in a discussion group were demonstrated on the magnetic portion of the board.
2. Flannel board—Flash cards, stating the different steps in planning a flip chart, were used on the flannel section of the board.
3. Chalk board—Statements about the advantages and disadvantages of using flip charts were written on the chalk portion of the board.

Before presenting the subject matter, the discussion leader planned how he would use the tool—as a spring board for discussion, to stress a point in the discussion, or to summarize the discussion. He also planned where the multipurpose board would be placed so that everybody in the class could see it. To avoid distraction, he decided to have it brought to the group at the *exact* time it was to be used—no earlier and no later.

The conference group emphasized that educational aids cannot be depended upon to do the teaching by themselves. An educa-

tional aid is just what its name implies—an aid to explaining the subject you are talking about.

*Suitability.* The information to be presented by means of the multipurpose board was pretested to determine whether it was suitable for the designated group and whether it would serve its purpose. Lettering and pictures were made large enough so that they could be seen easily. As many illustrations as possible showed local scenes and people. The pretest was given to people with an educational level similar to the staff with whom the educational aids were to be used.

#### AN EDUCATIONAL AID FOR USE WITH THE COMMUNITY

A leaflet, presenting the story of malaria and the eradication program in comic book form, was chosen by the conference group as one of the educational aids they would recommend for the program in Bananaville. There were several reasons for this choice. Comic book stories were the most popular type of reading material with the village boys and girls. For those children and adults who could not read, the pictures would help them understand what the malaria staff were telling them. This type of visual aid could be produced locally and, if mimeographed, would be inexpensive. There was the advantage also that additional copies could be produced as needed. The information included in the story could be fitted to the actual situation in Bananaville, and the illustrations could show places,

habits, and people familiar to the villagers. The principal reason, however, for selecting the leaflet as an educational aid for the Bananaville program was the length of the message that the conference group believed would be necessary. The message would be fairly long because there was so much to explain to the villagers about the malaria eradication program. In a comic book, a long story can be told in an interesting and simple way, without becoming too involved or boring.

A long story was necessary because many of the villagers were annoyed with the program. Some believed it was not needed for they did not see any connection between the various program activities and getting rid of malaria. Some had mistaken ideas about the cause of malaria and how it is spread from one person to another. Others in the village had had unhappy experiences with spraying and blood sampling.

It was recognized that many of the villagers would not be able to read the written material and that, for this reason, great care would have to be taken to have the illustrations tell as much of the story as possible.

The leaflet was to be one means of telling the story to those who could read and of helping them tell the story to the villagers who could not read. The leaflet was a visual aid for the use of the health staff, the community leaders, and some of the school children. It was designed to help them explain to the villagers the cause of malaria, the way it passes from the ill person to the well person, how the disease is treated and cured, and how the spraying of houses and

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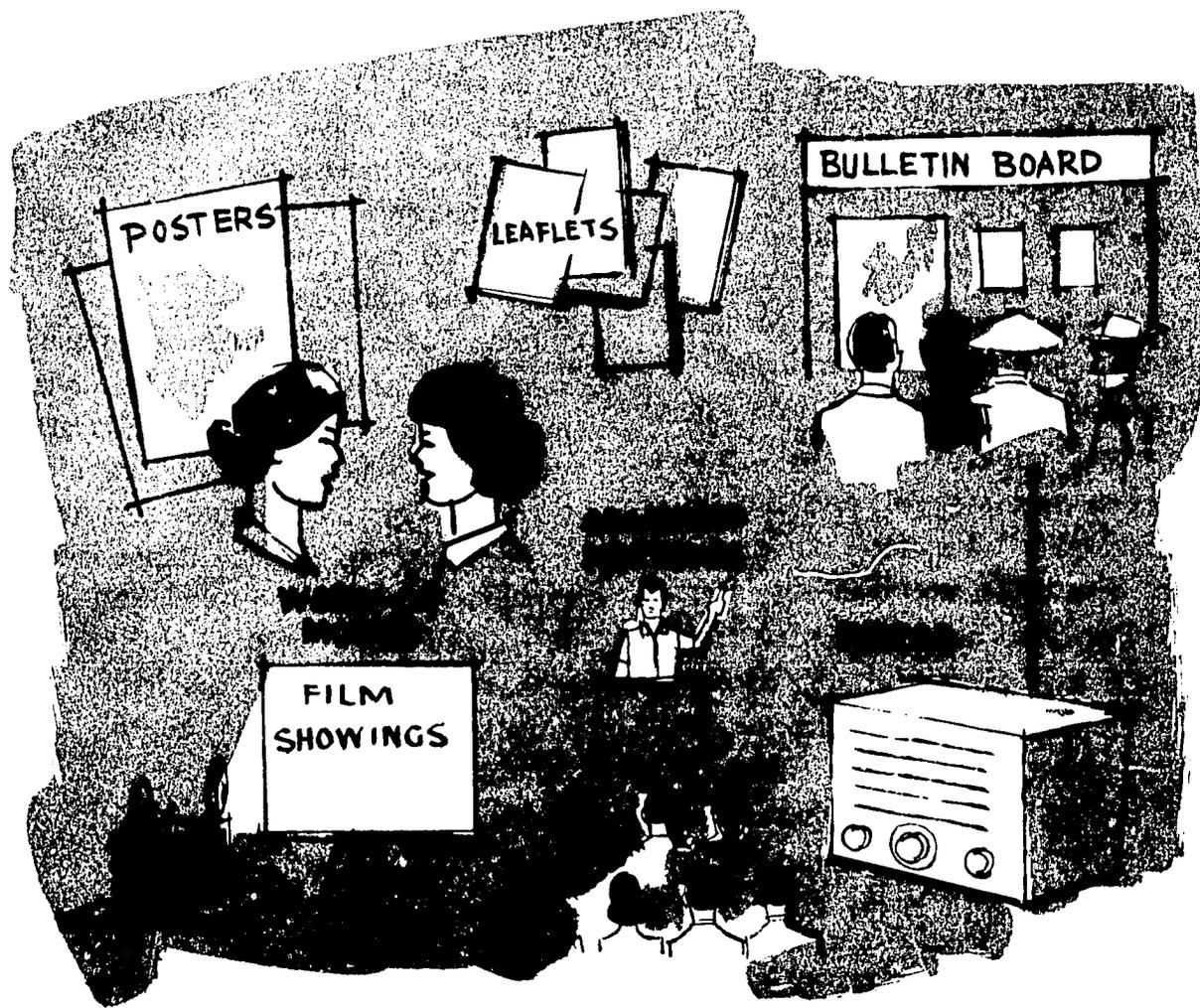
the taking of blood samples contribute to the eradication of the disease. It would also help them increase their own knowledge of the program.

*Content.* The content of the comic book story is summarized here: A malaria worker goes to a village house to spray the walls, and the housewife objects. The sprayman asks why she refuses now, since she has had her house sprayed before. The housewife says she believes that the bedbug population has increased, and she blames the spray for this. She says that, after spraying, the walls

of her house always look dirty and, besides that, one of her pets died from the spray. She also says she knows that malaria is not acquired through mosquito bites, but by drinking polluted water.

For every objection the housewife makes, the sprayman tactfully gives an explanation and a clear answer. Finally the housewife allows the malaria worker to spray her house.

The story told in the leaflet then goes on to show the malaria worker requesting his superior to arrange a meeting with the



people of the community. At the meeting, the importance of spraying every house in the village is discussed. Reasons why people object to the spraying operations are also discussed. Toward the end of the meeting, some questions and doubts are raised by the villagers. The malaria workers clear up these doubts and answer each question to the satisfaction of everyone. On their way home, the people are pictured telling one another that spraying is good for their village, and that they all must have their houses sprayed so that malaria will be eradicated.

*Pretesting.* The leaflet was pretested for clearness of message and appropriateness of size, lettering, colors, and illustrations used. The pretest was conducted with a group of individuals with an educational level similar to those with which it was eventually to be used.

*Distribution and use.* The leaflets were used first by the malaria and health workers when they discussed the program with community leaders and others who had agreed to help with the program. The message in the leaflet was discussed with them so that they learned more themselves and would be better prepared to explain the story to other people. Each of them was given extra copies to be given to the people with whom they talked about the program. When the leaflets were given to them, they were taught how to explain the content of the leaflet to others. The malaria workers

stressed the fact that they must not depend on the leaflet to do the teaching by itself. For example, the malaria workers gave leaflets to the teachers to be distributed to the school children, but first they explained the content to the teachers and suggested how they might explain the content to the children. Then the teachers gave the leaflets to the children, explained the content, and taught the children how to explain it to their parents.

The training of those who were to use the leaflet was not in formal, organized training programs; instead, when the leaflet was first given to them, the malaria workers gave them informal guidance in its use.

*Determining the effectiveness of the tool.* The effectiveness of the leaflet and of the way it was used was evaluated by interviewing a sample group of the villagers. Here are some of the questions the villagers were asked:

1. Have you seen the leaflet or received a copy of it?
2. Where did you see it or who gave you a copy?
3. What did you do with the leaflet after you read or looked at it?
4. What did you learn about malaria and the eradication program from the story?
5. Did the information in the leaflet help you to understand the reason for having the houses sprayed?
6. Are you going to have your house sprayed the next time the sprayman comes to your house for this purpose?

## RECOGNIZING AND REPORTING BEHAVIORAL SYMPTOMS

All those involved in carrying out the educational component of the malaria eradication program need to know how to recognize attitudes and happenings which indicate dissatisfaction or misunderstanding about the program and which, if not overcome, can defeat the purpose of the program.

Some examples of such symptoms are: (1) the complaints that people make about the mess left by spraymen, or about the inconvenience of moving furniture before and after spraying; (2) the number of householders who are never at home when the sprayman calls; and (3) the irritation shown by mothers if their children cry and hide when blood samples are being taken.

The malaria workers in Bananaville were taught to be observant and sensitive to people's words and actions so that preventive measures could be taken before widespread resistance toward the program had a chance to develop.

Information about the villagers' feelings toward the program was obtained in a

variety of ways: interviews, discussions during conferences and meetings, observation of practices, and the reports made by staff members and volunteers about questions they were asked or comments made to them about the program.

The health educator found one particular problem in Bananaville which showed that an adjustment was necessary in the program. He discovered that many of the householders were complaining that the spraymen were careless. When he asked the spraymen about this, they told the health educator that they had too many houses to spray each day, and as a result they did not have time to be careful.

The health educator spoke to the program administrator about changing the schedule of the spraymen so that they would have fewer houses to spray each day. They could therefore be more careful and have more time for giving explanations about the program and for answering questions. The health educator convinced the program administrator that, if the spraymen were not given more time to do their jobs properly, a serious problem of resistance on the part of the villagers might develop.

*This report on malaria eradication has presented the decisions and opinions of the conference participants. This, or any other single report, will not provide answers to all the health education problems you will be faced with in a malaria eradication program. But, if you will study this report carefully, you will profit from the information it contains.*

# An Environmental Sanitation Program





## AN ENVIRONMENTAL SANITATION PROGRAM

STUDY AREA I: *How public health administrators and health educators can effectively help other health workers gain an understanding of health education.*

### INTRODUCTION

One goal of public health is to bring under control the environmental factors which adversely affect the health of people. Every effort must be made to reduce the deaths, illnesses, and disabilities caused by diseases spread by water, vectors, foods, and poor personal and environmental health and safety practices.

Certain environmental factors are of greatest importance. The people must have and use safe water. Human and other wastes such as garbage and refuse must be disposed of in a proper manner. Good personal hygiene must be practiced. People must have proper living quarters and must eat germ-free food. Equally important is the control of vectors such as insects and rodents, and of occupational and industrial hazards including air pollution or atomic waste.

### EDUCATIONAL PROBLEMS IN ENVIRONMENTAL SANITATION PROGRAMS

Many people do not know or do not believe that food, water, and vectors can spread disease.

There are certain habits, practices, customs, and traditions among the people which contribute to an unhealthy environment. For instance, some people do not like to boil drinking water because they like the taste of unboiled water better.

The low social and economic status of the people can cause problems, too. As an example, even when people understand that sanitary toilets are important, they may not have the money to buy materials to build them.

One of the most serious problems in environmental sanitation is the lack of cooperation between the people and the health workers. Many times the people are told they should do something about water or garbage but they are not told why.

A problem among the health workers is that often they do not work together as a team. For example, some members of the health staff are inclined to place full responsibility for environmental sanitation on the sanitarian, not realizing that environmental health is everyone's responsibility. If the entire health staff worked together, sanitation and other health problems would be easier to solve.

## ENVIRONMENTAL SANITATION—I

A final problem is that health workers and the people do not use the resources available in the community for environmental sanitation improvements. They do not seem to recognize that many of the materials they have locally can be used in place of expensive items which must be transported from other areas.

There are many reasons for the educational problems mentioned above. One important one is the lack of enough personnel, finances, and facilities to carry out a good program. In some instances, neither the health workers nor the people in the community feel responsible for health programs. Sometimes, the health workers do not have enough technical know-how to do their jobs properly, and they do not use the right approaches when working with the people. The health workers do not plan the health

programs well because they do not have enough information, and they do not evaluate their programs. Even when a program *is* planned well, the health workers may not carry out the plan correctly.

## WHO IS INVOLVED IN ENVIRONMENTAL SANITATION

There are two major groups who can contribute to environmental sanitation work. The first group consists of those persons whose main occupation is health work. Among these people are those who are employed by the health department and who work in health centers, hospitals, dispensaries, or clinics. Examples are health officers, public health nurses and midwives, hospital nurses and aides, sanitarians, sanitary inspectors, sanitary engineers, health educators,



statisticians, epidemiologists, nutritionists, public health dentists, veterinarians, and hospital personnel. There are other people whose main occupation is health work, but who are not employed by the health department; examples of this group are private physicians, nurses, dentists, pharmacists, herb doctors, local midwives, veterinarians, and laboratory workers.

The second major group that can do a great deal to help improve the sanitation of the environment is comprised of those whose main occupation is something other than health work. The work that they do in health is in addition to their other jobs or is done on a voluntary basis. Members of this group include civil administrators, agricultural workers, teachers, community development workers, military and defense people, religious and other community leaders, 4-H Club members, businessmen, and employees of the Social Welfare Administration, the Red Cross, and other such agencies.

### IDENTIFYING EDUCATIONAL NEEDS

One method of identifying educational needs of the environmental sanitation program is to talk with health workers and community leaders to get their views about sanitation problems and the things they think should be done about them.

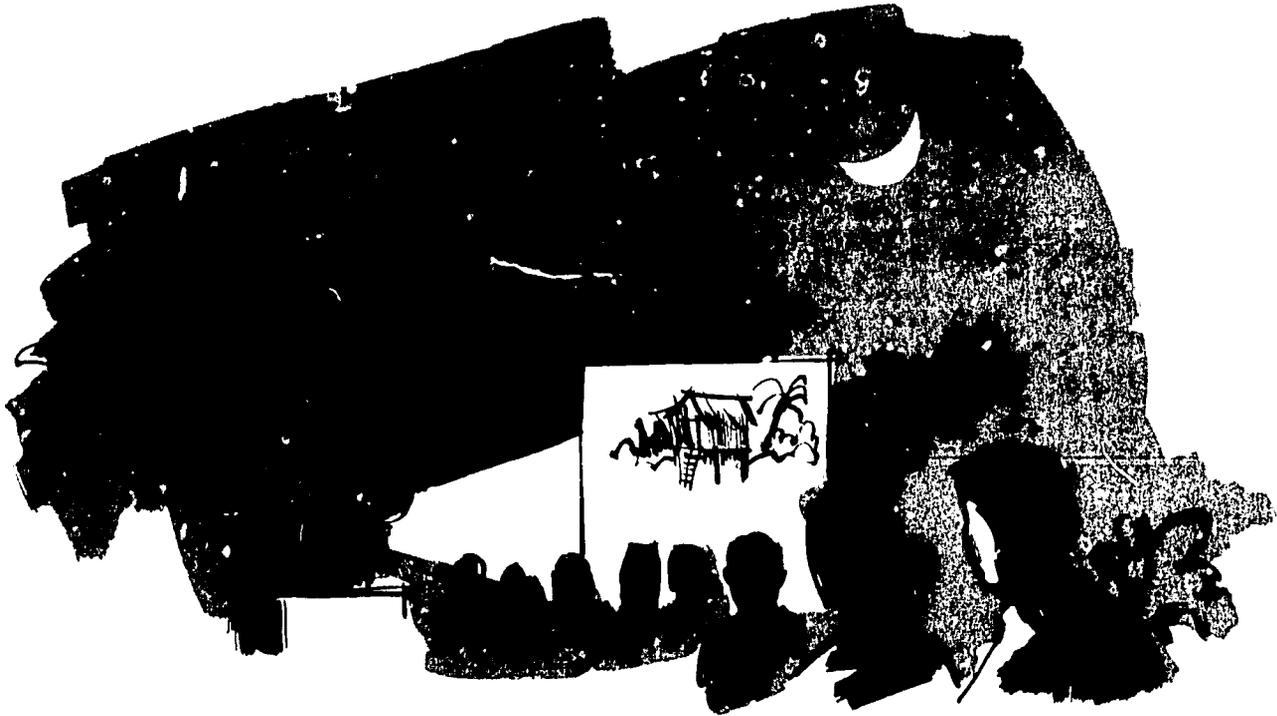
A survey is another useful method for getting the information to identify the educational needs of a program. Social, economic, and population surveys give im-

portant information about the community such as educational level, economic status, major occupations, language, land and home ownership patterns, political structure, population density, cultural, leadership and social patterns, and population composition with regard to age, sex, civil status and nationality. A survey on resources can be used to get information about leaders, finances, natural resources, communication patterns, transportation, institutions, organizations, and trained health personnel. Geographic surveys give details about the topography, climate, and flora and fauna. Surveys can be used to obtain vital statistics and bring to light information about existing sanitary facilities, housing, health knowledge, attitudes, habits, and practices of the people. Special health and medical investigations also give important information.

### HEALTH EDUCATION RESPONSIBILITIES FOR HEALTH WORKERS

First, health workers should know the objectives and plan of operation for the environmental sanitation program. Each worker has to know what his own specific duties and responsibilities actually are and how these duties relate to the program. He should know also how to work with other members of the health staff in getting the job done. He needs to know about the health beliefs and practices of the people in the village or area where he works.

Health workers have to know *what* they are supposed to tell or explain to the people, and *how* they are to tell or explain this infor-



mation. An important skill that health workers must have is that of working with the people. They need to know how to find community leaders and how to get these leaders interested in sanitation problems. Health workers should know how to make and use educational tools which will help them in communicating with the people. And finally, they should know how to evaluate the response they get to their activities so that they will be able to make adjustments if they are needed.

### DEVELOPING KNOWLEDGE AND SKILLS

Most health workers *know* they have the health education responsibilities listed above. The problem is that they do not always *accept* these responsibilities. But it is not really their fault. They simply have not

been given the chance to develop the knowledge or acquire the skills that are necessary to accepting the responsibility. These are the opportunities that should be provided for each type of worker to learn more about health education for sanitation programs:

Professional sanitation workers (sanitary engineers, sanitation inspectors, and sanitarians) should have classroom instruction, guided or supervised field training, and observation or participation in demonstration projects. They should take part in staff meetings, workshops, seminars, conferences, program planning, leadership training, on-the-job consultation, and on-the-job training.

Other official health workers (public health nurse, public health midwife, health officers, etc.) should have classroom instruction and guided field training, and should participate in demonstration projects, staff

meetings, workshops, seminars, conferences, program planning, and leadership training.

Nonofficial health workers (e.g., community leaders) should have opportunities to take part in program planning, workshops, seminars, demonstration projects, conferences, and interagency meetings.

#### HOW PROGRAM ADMINISTRATORS AND HEALTH EDUCATORS CAN HELP

The program administrators and health educators can provide the above opportunities for the health workers to acquire the necessary knowledge and to develop the essential skills in helping them to accept their health education responsibilities.

Other means can be used, as well, by the program administrators and health educators. First, they can encourage the workers to develop faith and trust in the ability of the people to help themselves.

They can help the workers identify the

health education needs of the program, and gain an understanding of the importance of setting themselves as examples of good sanitary habits.

They can see to it that the health workers are given practical learning experiences in health education techniques, and they can make it possible for these workers to share responsibilities in decision making and problem solving.

Program administrators and health educators can give credit and recognition to those workers who earn them. They can also consult with the workers as often as possible, and they need to provide the necessary health education tools and materials which the workers cannot get for themselves. In addition, program administrators and health educators can work together in providing up-to-date literature on environmental sanitation and health education so that the workers will know about new procedures and methods.

*STUDY AREA II: Planning the educational component of the environmental sanitation program and preparing for its implementation.*

EDUCATIONAL OBJECTIVES

The general educational objective of an environmental sanitation program is to prepare people to accept and develop good sanitation practices and habits. The specific educational objectives are these:

1. To get people to understand the relationship between sanitation and disease.
2. To create among the people an awareness that sanitation problems exist and a realization that something can be done to solve them.
3. To obtain the participation of the community in planning and carrying out activities for solving sanitation problems.
4. To provide the kinds of educational experiences for people that will encourage changes in habits, attitudes, beliefs, practices, and customs which stand in the way of proper sanitation.
5. To help the people learn how to find and use their own resources in improving the sanitation of their environment.

INFORMATION NEEDED TO DEVELOP THE EDUCATIONAL PLAN

As discussed in Study Area I, environmental sanitation is a broad field, covering many aspects of private and public life. Because of this large scope, the conference

group decided to limit further discussion to a water supply and excreta disposal program for a rural area. Certain information, however, is necessary to develop even this much of an environmental sanitation program.

First, it is important to know about the social and economic status of the community. It is pointless, for instance, to try to get the people to install wells if they do not have the money to buy materials.

The program plan will also be influenced by how the people feel about health and sanitation. Their practices, habits, attitudes, and educational level may mean, for example, that some elementary sanitation training may be required.

Good planning must consider community resources, such as health personnel, finances, natural resources, communication and transportation facilities, institutions, organizations, and community structure and leadership.

It is important to know the most pressing sanitation problems so that these will get attention first. It is also necessary to know which are the target groups, so that plans can be made to fit their particular needs and understanding.

Additional necessary information includes knowing how news travels in the commu-

nity, the sources considered reliable, the family pattern (who controls the money, who makes the decisions, etc.), and the administrative and organizational set-up within which the environmental sanitation program will operate.

### WHO IS INVOLVED IN PLANNING AND WHY

Those who should be involved in developing the health education plan for the environmental sanitation program include: civil administrators at all levels; public health administrators; sanitation workers; health educators; community lay leaders and religious leaders; other health workers, such as nurses, midwives, and laboratory workers; school administrators and teachers; representatives of other community agencies (agriculture, public works, etc.); community groups such as PTA and Youth Club; businessmen, including movie theater owners, newspaper publishers, and radio station managers; and local artisans, including masons, carpenters, and pump manufacturers.

These persons should be involved in planning because each of them has a contribution to make. For example, some will be important sources of information, others will know a great deal about certain facets of community life, and still others will be instrumental in getting the cooperation of the entire community because they are leaders of public opinion. Equally important is the fact that, through participation in planning the sanitation program activities, these people will gain a better understand-

ing and appreciation of how sewage disposal and water supply affect public health and welfare.

### HOW THEY CAN BE INVOLVED

There are many ways of involving these people in health education planning. They can participate in making surveys of the community, they can serve as members of an advisory committee, or of committees dealing with specific aspects of the program. They can be invited to participate in conferences, seminars, and workshops as resource persons, observers, lecturers, and so forth. Some of them will be valuable teachers for the training sessions. Others can help in mass communication activities by making arrangements for slides to be shown in movie theaters, by writing or arranging for newspaper articles, and by getting the cooperation of the radio station. Some can observe or help with demonstrations. Others can be taken on field visits. Many of them may be able to help with the inspection, supervision, or reporting of proper maintenance or misuse of sanitary facilities or faulty sanitation conditions.

### STAGES OF PROGRAM PLANNING

It is necessary that all the people mentioned above participate in all three stages of planning. These three stages are covered here:

*First stage:* Pre-planning during which efforts are made to:

1. Collect all information which is important to the development of the plan.



2. Interpret and analyze this information.
3. Determine the sanitary needs and wants of the community.

*Second stage:* Planning when the emphasis is on:

1. Establishing program goals and objectives.
2. Deciding what parts of the program need attention first.
3. Determining the organization and administration of the program.
4. Selecting the methods, standards, and materials to be used in well and latrine construction.
5. Developing a plan of action, including who is to do what, when, and how.
6. Determining the methods to be used in evaluating the program.

*Third stage:* Carrying out and evaluating the program during which it is important to:

1. Set up a reporting system to keep track of the progress made and the problems which occur during program operation, so that adjustments can be made.
2. Involve the public health workers and community leaders in the supervision of the use and maintenance of sanitation facilities and practices.

#### **FUNCTIONS OF THE PROGRAM ADMINISTRATOR AND HEALTH EDUCATOR**

The program administrator and the health educator have certain specific functions in planning the educational component of the environmental sanitation program

and preparing for its implementation. These functions are listed below.

### DIAGNOSING THE EDUCATIONAL NEEDS

The *program administrator* provides the support, facilities, and resources which are required for collecting information about the educational needs of the program. He also helps in analyzing the information and interpreting its meaning to his staff. He obtains the support and participation of other agencies and encourages them to take an active role in the sanitation program.

The *health educator* determines how to obtain accurate information about people's attitudes and practices in environmental sanitation. He organizes and guides the actual gathering of information. The health educator helps interpret the data obtained to staff and to community leaders. He assists the staff plan the contacts they are to make with community people whose help and cooperation is needed in the program.

### PLANNING THE EDUCATIONAL TREATMENT

After the major educational needs of a program have been determined, the next step is to plan educational treatment which is appropriate to the situation.

The *program administrator*, along with the health educator and other health staff, reviews the information obtained about sanitation problems as well as the beliefs and practices of the people. He helps develop

the educational objectives and goals of the program and insures that they are in line with the over-all program plan. He provides budget to carry out the educational plan and to cover other needs of the program. The program administrator includes health education training in the over-all training programs for the staff, and he makes provisions for obtaining and distributing the educational tools which are needed.

The *health educator* sets up the educational goals and begins working on the health education approach to the program. He establishes clear lines of organization, finds ways to use resources in the community, sets completion dates for activities, identifies target groups, determines personnel requirements for those who will be involved in the health education component, and decides what kinds of supplies and equipment will be needed. The health educator suggests how to distribute and use educational aids. He organizes and helps carry out training programs which may be needed by the staff. And he sets up methods to evaluate the health education component of the total program.

### IDENTIFYING, SECURING PARTICIPATION OF, AND PROVIDING TRAINING FOR THOSE RESPONSIBLE

The *program administrator* contacts and involves the necessary persons in program planning, and he encourages the health workers to assume their responsibilities for health education. He provides incentives for his staff, such as job security, adequate

## ENVIRONMENTAL SANITATION—II

salaries, and gives credit and recognition for work well done. The program administrator allows time in the training program for health education and provides needed materials, personnel, and facilities for this training.

The *health educator* prepares a list of the public health workers who have the most frequent contact with the community, and a list of the community people whose help will be needed. He looks for other people who may be helpful in promoting the program, and he organizes meetings to encourage their cooperation. The health educator asks for the help of health workers in identifying health education needs and advises them on health education methods. He determines health education training needs for the people who will help carry out the program, and selects the methods and teaching aids to be used. He sets up training schedules, organizes field visits and practice sessions, and selects and obtains current reading materials for their use.

### PROVIDING EDUCATIONAL TOOLS

The *program administrator* provides the personnel and supplies needed for developing and producing educational tools. He helps plan for proper distribution, use, and maintenance of educational tools and equipment. He reviews the materials which are prepared to check them for technical accuracy.

The *health educator* decides which educational tools are needed. He helps develop,

pretest, produce, and evaluate the tools. Whenever possible he encourages the use of local materials. Finally, he sees to it that the educational tools are used properly.

### IDENTIFYING BEHAVIORAL SYMPTOMS

Some problems, not anticipated during the planning stages, are likely to arise during the operation of the program. These must be identified promptly so that adjustments can be made before people lose interest in improving their environment or develop misunderstandings about the reason for some of the program activities.

The *program administrator* keeps up to date with program operations and provides information on the progress of the program. He analyzes information available to him, and makes first-hand observation of program operations to verify what he has been told and to help him decide whether changes are necessary.

The *health educator* keeps informed about the progress of the program by his close and continual contact with the staff and community leaders. These people give him the information they believe to be important. The health educator analyzes this information and, whenever it looks like a behavioral problem is developing, makes his own investigations. If changes in the program are needed, the health educator calls these to the attention of the program administrator and suggests to him the ways of bringing about improvements in the situation.

**STUDY AREA III:** *The role of the provincial health educator in the establishment of an environmental sanitation pilot project in Bananaville, Piña District, Coco Province.*

## INTRODUCTION

You will recall from the discussion guides that Study Area III presents an imaginary situation. The challenge facing the group was to apply the principles discussed in Study Areas I and II to this imaginary situation. It will be helpful for you to go back to the discussion guides printed in the Introduction of this book, and re-read the material for Study Area III.

## BACKGROUND OF BANANAVILLE

The discussion group covering environmental sanitation concluded from information in the discussion guide that the health educator was newly assigned to Coco Province, and that as his first assignment he was to concentrate his activities for the first 6 months to Piña District. In other words, he was to be allowed to spend 1 week each month working in this district. The Piña District Health Officer had decided that the health educator would spend this 1 week per month working as a part of the health staff in Bananaville. It was further decided that, since environmental sanitation was a major problem in this village, the health educator would give this problem the most attention.

After studying the information available on Bananaville, the health educator reached several conclusions. The literacy level of the people is low, but there is a spirit of cooperation, shown by the lottery held for the village generator. Social life in the village is centered around the school. Some local materials are available for use in a sanitation program. Good transportation facilities exist from Bananaville to Piña District and to the provincial capital.

The health educator also obtained some information about the key persons in the village: the head man is, of course, older; he is authoritative, but helpful and cooperative if he wants to be, but he is disliked by some of the younger residents. One of the midwives is respected, long established, and well liked. The enthusiastic 4-H Club leader is influential with 22 members. The sanitation aide is active and had done a good job. One of the medicine men is cooperative; the other is not. The adult education officer is enthusiastic and has the cooperation of the villagers.

## PRACTICES NEEDING CHANGE

Based on information he was given, the health educator could easily identify three major problem areas in environmental sani-



tation: water supply, excreta disposal, and personal hygiene.

*Water supply.* He knew that most of the people in Bananaville use river water or water from an open well. He learned that many did so because they believe that sun purifies water. He found also that those who carry water from the river or well to their home still follow the unhealthy practice of covering the water with twigs to avoid spilling and what they think to be contamination.

*Excreta disposal.* The health educator was told that the villagers still defecate in the bush or rice fields and that many of

them do so because they do not know that this practice is dangerous to their health.

*Personal hygiene.* The health staff working in Bananaville informed the health educator that in most families all members use a common drinking utensil; that most of the milk and other foods the villagers eat is contaminated because of poor handling; and that garbage is not disposed of properly, providing many breeding places for flies.

With these problems in mind, the health educator planned his course of action for the time allotted to him. He outlined 11 activities he would attempt during his assignment in Bananaville.

## PLAN OF ACTION

*Activity 1.* The health educator decided that during his first week in the village he would spend his time getting more information about behavior, practice, and knowledge of the people in environmental sanitation. With the help of the sanitation aide and the village health worker, he made a list of the things they would need to know in order to develop a plan of action. In the process of seeking information, he became acquainted with many of the key persons in Bananaville.

*Activity 2.* Next the health educator met with the district health staff to discuss the sanitation problems of Bananaville and to get their suggestions about solutions for them. The staff believed that four goals were feasible: (1) the installation of a sanitary well at the school; (2) the improvement of the unsafe village well; (3) the installation of three latrines each month; and (4) the improvement of some personal and community health practices.

*Activity 3.* This part of the health educator's assignment was concerned with getting the key people in Bananaville interested in sanitation problems and in a frame of mind to want to do something to solve them.

The district health officer, the sanitation aide, and the health educator made a call on the headman. He was told that his village was being considered as a pilot area for an environmental sanitation improvement project because of the excellent community spirit shown in the past.

The health educator and the headman agreed that the reasons for undertaking the

project should be explained to such persons as council members, the school principal, the 4-H Club leader, agricultural extension worker, home economist, and adult education officer. The health educator suggested some of the ways this might be done and also emphasized the importance of getting the reactions of these people to the proposal and their ideas about the kinds of sanitary improvements they would like to see made. One of the suggestions the health educator made to the headman was that he might call a meeting of the key persons listed above. At this meeting the headman and the health staff could present information about the proposed project, the reasons for it, and how it might be carried out. Then there could be a discussion of all these points. The real purpose would be to learn from the key people whether they believed such an undertaking would be worthwhile and if they did, what they proposed as a next step in planning for it.

The headman agreed with this suggestion and arranged to get some of the community leaders together to talk about the proposed project.

*Activity 4.* The meeting was held and, as a result, three committees were set up to make plans for solving environmental sanitation problems in Bananaville. The chairmen of these committees met regularly to coordinate the activities. The members of each committee are listed and their responsibilities described immediately following Activity 11, under the heading "How the Committees Functioned."

## ENVIRONMENTAL SANITATION—III

*Activity 5.* The sanitation aide, assisted by the health educator and other members of the health staff, met with each committee separately to plan the activities to be undertaken by them.

*Activity 6.* The health educator reviewed the results and progress of the committee work with committee members and helped them to identify and solve problem situations that arose during program operation.

*Activity 7.* The health educator met with committee members and teachers to prepare them for personal hygiene teaching. He helped them prepare educational tools and materials.

*Activity 8.* The health educator helped committee members plan and organize home classes on sanitation practices for housewives. He also provided the teaching materials and tools and suggested teaching techniques.

*Activity 9.* During seminars, the health educator showed health staff and community leaders how they could prepare additional health education materials using local resources.

*Activity 10.* The health educator helped the latrine committee plan and organize a community meeting.

*Activity 11.* The health educator met with the coordinating health council and staff advisors to review progress of activities and to plan how activities in succeeding periods could be carried out. He also met with the provincial and district health staffs to report what had been accomplished during his six-month assignment. He discussed with them what might be done to maintain

the interest of the villagers and the local staff in continuing their efforts to improve sanitary conditions in Bananaville.

## HOW THE COMMITTEES FUNCTIONED

The three committees which were set up in Activity 4 were the water supply committee, the latrine committee, and the personal hygiene committee. The sanitation aide, because of the nature of his work, was named as a member of all three committees. The other members of these committees were as follows:

1. Water supply committee: members—headman, a village council member, school principal, 4-H Club leader, a landlord, agricultural extension worker; staff advisors—provincial sanitary engineer, one of the district sanitarians, and a laboratory technician.
2. Latrine committee: members—a councilman, a landlord, one of the teachers who lives in the community, one of the local midwives, and one of the medicine men; staff advisors—the health officer, a nurse-midwife, and a sanitarian from the district health center.
3. Personal hygiene committee: members—a teacher, a local midwife, one councilman, the other medicine man, a housewife, the home economist, the adult education officer, the village health worker; staff advisors—assistant district health officer, MCH specialist from the provincial office, and another one of the nurse-midwives from the district health center.

The health educator helped to define the role and responsibilities of each committee. These responsibilities were as follows:

1. Water supply committee: (a) create an awareness among the villagers that there is a relationship between water and disease; (b) organize a local labor force and find materials for the construction of the school well and for improving the unsafe village well; (c) be responsible for proper maintenance of the safe village well; (d) encourage people to get and use more containers for keeping rain water; (e) devise and introduce ways of making river water clear and safe; and (f) encourage the construction of more sanitary wells.

The health educator organized a field visit for committee members to observe a demonstration sanitary well.

2. Latrine committee: (a) make a survey to determine how many sanitary latrines would be needed; (b) create an awareness on the part of the people that there is a relationship between human waste and disease; (c) organize classes to demonstrate a safe latrine, the materials needed, and how to build one; (d) encourage neighbors to help one another in

the construction of individual latrines; and (e) set up a cooperative arrangement so that one set of tools could be purchased and loaned to the individual families thereby making the program as inexpensive as possible.

3. Personal hygiene committee: There were two target groups for this specific problem area—school children and housewives. At the school the committee planned to: (a) supply handwashing facilities for teaching and demonstration purposes; and (b) encourage the teachers to include instruction about personal hygiene in subjects such as social science, physical education, and domestic science, and to conduct morning inspections, interclass competitions, and so on, in order to get the school children to want to practice good personal hygiene.

In working with the housewives, the committee planned to: (a) hold classes for instruction in sanitation practices—washing utensils, control of flies, handwashing, etc.; and (b) organize a clean home and garden beautification contest. This contest was to stimulate interest in the environmental sanitation program.

STUDY AREA IV: *Selecting educational tools and identifying behavioral symptoms.*

INTRODUCTION

In Study Area III, the principles and theories that were covered in Study Areas I and II of the environmental sanitation program were applied to an imaginary situation.

The problem dealt with in this section is also an imaginary situation. Again, it will help you to understand if you turn back to the discussion guide for Study Area IV in the Introduction of this book and read it again.

The discussion guide tells you that this study area posed two problems for the discussion group: (1) to select and describe some of the educational aids that they believed would help the health workers and the community leaders in Bananaville teach others in the village about environmental sanitation; and (2) to consider the attitudes or kinds of behavior practiced by the villagers that would show that they did or did not understand what was being taught or whether they believed that the sanitation program had merit.

The decisions and opinions of the conference group are covered on the following pages.

WHY EDUCATIONAL TOOLS ARE NECESSARY

One of the most serious problems in an environmental sanitation program is that of

maintaining over a long period the interest and the cooperation of the people. To get this necessary cooperation, certain information must be communicated to the people.

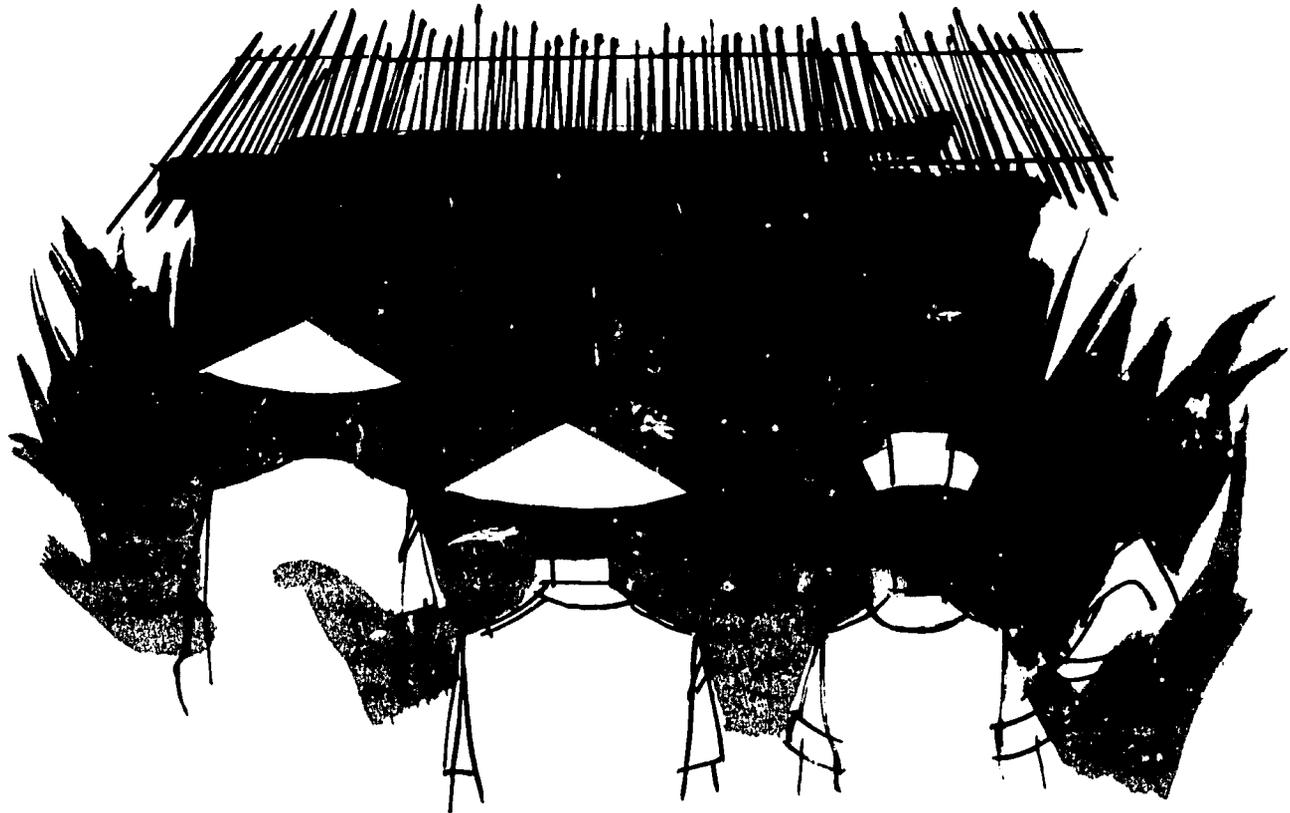
Ideas, facts, and knowledge can be communicated by either "audio" or "visual" methods. By "audio" we mean simply "the spoken word." The term "visual" refers to anything that is seen, such as written words, pictures, and illustrations.

Either method—audio or visual—will get the message across. But the best way to communicate to the people is to use a combination of both methods, audio and visual, to *tell* them and to *show* them. To carry out the "show" part of communication, you need "educational tools."

AN EDUCATIONAL TOOL FOR USE IN STAFF TRAINING

The bulletin board was one of the health education tools the group selected. They felt it would be useful in helping the health staff to gain a better understanding of their responsibilities in the health education component of the environmental sanitation program in Bananaville.

*Target group.* The tool was to be used with a group composed of the sanitation aide, the village health worker, and other health staff who would help with the environmental sanitation project in Banana-



ville. This health staff included all members of the district health staff and the sanitary engineer, MCH specialist, and laboratory specialist from the provincial office.

*Reasons for selecting the tool.* The health educator, together with the health staff, decided on the bulletin board because it would be a means of visually reminding the staff of their health education responsibilities and how these relate to a successful program. The bulletin board would be easily prepared, and it could be placed where the staff would see it often.

*Purposes of the bulletin board.* The bulletin board was to provide a permanent means of reminding the staff of their responsibilities in working with committees and the community. It could be used also to keep the staff informed of current activities

of the environmental sanitation program in Bananaville. It was felt that the material posted on the bulletin board would stimulate the interest of the health staff and of the committee members as well, and would supplement other health education tools used in project activities.

*Making the tool.* A carpenter made two bulletin boards using wood and bamboo mat, both of which were available in Bananaville. Most of the materials used on the bulletin board were obtained or developed by the health staff. A local person who had had some art training helped plan the layout of the material on the board and illustrated some of the material.

*Uses of the bulletin board.* One bulletin board was placed in a conspicuous place in the district health office, and another board

was placed in the village dispensary. For the first display, the material used was a chart showing the committee structure for the program and describing the function and the relationship of each health staff member to the committees. Later, reports on the progress of the project were placed on the board, and other items were used and changed as the need arose. The staff members were responsible for collecting, preparing, and posting materials, and for changing them regularly.

Another item displayed on the board was the newspaper clipping of the story about the selection of Bananaville for a pilot environmental sanitation project. Other newspaper clippings were added as they appeared in the papers, as were the texts of announcements given to the radio station. Also placed on the board were announcements of the time and place of committee meetings, and a listing of things to be done in advance of the meetings.

Additional items for the bulletin board were notes about new information, ideas, and problems relating to the project activities of the staff and committee members; these notes were contributed by the individual staff and committee members themselves. Of particular interest were photographs of project activities with appropriate verbal descriptions of what they portrayed and the names of the people involved. Exhibits of other health education materials being used in the project were also shown on the bulletin board.

*Usefulness of the tool.* In order to determine the usefulness of the bulletin board,

the health educator talked with each health staff member to get reactions and ideas. It was possible to determine how well the tool filled its purpose by observing how well the health staff participated in keeping the material up to date and by their general interest in the program.

### AN EDUCATIONAL TOOL TO SUPPORT OTHER PROGRAM ACTIVITIES

The selection of an educational tool to support other program activities was made with the assistance of the people who were helping carry out the sanitation program in Bananaville. The health educator talked with the people who were concerned with health teaching about the various educational aids that could be used, explaining the advantages and disadvantages of each. The group selected the flannel board, and the health educator agreed to help them prepare one.

*Reasons for selecting the tool.* The decision to use this tool was based on several reasons. The flannel board is portable and inexpensive, does not require machinery or electric power, and can be used to give visual support for a variety of messages.

*Purpose of the flannel board.* This tool was to serve as a means of presenting information about sanitation to school groups, home study groups, and committee members. It was used, of course, as a visual aid to supplement the spoken word. Those who used it were the health staff members, teachers, and committee members. The tar-

get groups for whom the illustrations were made were the school children, housewives, and committee members.

*Content of the flannel board.* The message used on the flannel board varied according to situations, purposes and target groups. For example, in the school the flannel board was used by the third-grade teacher during a physical education class to illustrate how germs can be transferred by hands, and to emphasize the importance of washing the hands. The illustrations showed where germs are found, how germs

can be carried by hands, and how hands should be washed.

The flannel board was used with home study groups to show how flies transmit disease and how to prevent flies from getting on food. A series of illustrations were used to show flies on filthy objects, flies lighting on food, people eating the food, and people getting sick. Also illustrated were the kinds of coverings that can be used to prevent flies from getting on the food.

For use in committee meetings, the illustrations for the flannel board dealt with "the importance of working together."



One picture showed a person trying hard to lift a heavy object without success, and another a group of people lifting the same object easily. Illustrations were used also to tell how to organize a meeting. For this there were cards with written words which described the different steps to be taken in getting ready for a meeting.

*Suitability of the tool.* The materials to be used on the flannel board were pretested to determine whether the illustrations were big enough to be easily seen, and whether they conveyed the message they were supposed to. The pretest was carried out with representative samples of school children, housewives, and committee members. Their reactions and suggestions were used for making changes.

*Ways to use the flannel board.* Two flannel boards were constructed. One was given to the school for use by the teachers, and one was kept at the dispensary but loaned out for use in committee and home study group meetings.

*Training people to use the tool.* After the committee members decided to use the flannel board as the tool to support their health education activities, the health educator demonstrated its use and gave explanations on how and when it could be used and how the materials could be presented and prepared.

In the school, the health educator developed, with just one teacher at first, a topic to be presented using the flannel board. The content was, of course, related to the specific subject matter and grade to be taught. The teacher was asked to prepare

a presentation using the flannel board. This was used with the school children first. Later the teacher gave a demonstration for the other teachers, and told about her experiences in using the tool. The other teachers offered suggestions on how they might use the flannel board.

Training on how to use the flannel board was also provided for the committee members and health staff, especially the sanitation aide, nurses, and village health workers.

During the planning of classes for the home study groups, the health educator gave a demonstration on how to use the flannel board. In turn, those who were to teach the classes were given opportunities to practice using the tool and to make suggestions for changes.

*Evaluating the effectiveness of the tool.* The effectiveness of the flannel boards was measured in a variety of ways. In the school where one was used, the students were asked questions about the subject matter covered. This was done before and after the material was presented to them.

The purpose, of course, was to find out how much the boys and girls had learned. The teacher was anxious also to learn if the tool helped her hold the attention and interest of her students and if what she taught had any influence on health practices such as handwashing.

Similar measurements were applied by the members of the health staff and others who used the flannel board to give visual support to their discussions with committee members and other villagers.

## IDENTIFYING BEHAVIORAL SYMPTOMS

In the planning stage of the environmental sanitation program, the persons involved in carrying out the educational treatment plan were alerted to observe, recognize, and report the words and actions which might have implications for the achievement of program goals.

Some examples of behavioral symptoms that the health staff felt would be important were a decrease in home study group attendance, a decrease in interest of the health staff in project activities, evidence of a lack of cooperative effort among the villagers, or a reluctance on the part of the teachers to include health education in classes, and a lack of decision-making during committee meetings.

Information on behavioral symptoms was obtained from reports made at committee meetings, what was learned during informal contact with the villagers, and from anecdotal records of remarks made by those participating in home study groups.

The health educator evaluated the information he received by additional discussion with those who supplied the information, by actual observations to verify this information, through personal contacts and interviews with persons whose behavioral symptoms were reported, and by an analysis of the progress reports.

A specific problem which arose in Bananaville was this: The home study group sessions were being held in the house of a councilman who had offered it for that purpose. The schedule of the class was

Tuesday and Friday from 2:00 to 4:00 p.m. The class had been organized by the committee on personal hygiene, with each member to recruit two housewives. Twelve sessions were scheduled for this class, with a different teacher for each session. After the fourth session, the attendance dropped by 30 percent, and by the sixth session, two more housewives had dropped out.

As soon as the health educator had this report, he went to the village to discuss the matter with the committee and to try to learn the reasons for the great drop in attendance at the home study group sessions. The committee members thought that there might be several reasons: that the teachers might not be conducting the classes in an interesting manner; that the time schedule might not be convenient for the housewives; or that the mothers who had dropped out might never have intended to complete the series but came to the first ones out of curiosity.

With these possibilities in mind, one of the committee members and the health educator set out to get some facts. They talked with some of the mothers who were still attending the class, as well as some who had dropped out. They also attended one class session. What they learned was that the drop outs were because the time for the classes interfered with the afternoon nap that some of the women were accustomed to taking, the meeting place was not centrally located and was too far away from the homes of some of the women, and on Fridays almost all women in Bananaville were busy gathering fruits for the Saturday

#### ENVIRONMENTAL SANITATION—IV

market and some did not finish their work early enough to get to class.

This information was presented to the committee and, together with the housewives, adjustments were agreed upon. It

was decided that future classes would be held in a centrally located home, the time would be from 3:00 to 4:00 instead of from 2:00 to 4:00, and the Friday session would be moved to Wednesday.

*This report on environmental sanitation programs has presented the decisions and opinions of the conference participants. Before you began studying this report, the phrase "the health education component in environmental sanitation programs" may have sounded like just so many big words. If you have read carefully what has been presented, however, you will understand not only what the phrase means, but also how important all the aspects of health education are in improving the sanitation of any selected environment.*

# A School Health Program





## A SCHOOL HEALTH PROGRAM

STUDY AREA I: *How public health administrators and health educators can effectively help other health workers gain an understanding of health education.*

### INTRODUCTION

It would be difficult, if not impossible, to pick *one* of the four programs—malaria eradication, environmental sanitation, school health, or maternal and child health—as the program that is most important.

Each of the programs is vitally necessary in attaining optimum health in the Asian countries. And each of the programs is important for its own particular reasons.

Why *are* school health programs important? Why is there a special program devoted solely to the school children and their teachers? After all, these persons represent only a relatively small percentage of the total population.

School health programs are important because children are important. While they are young, children more readily accept training. They are not “dedicated” to the traditions and customs of their parents.

There are three important elements in every school health program, whether the school is elementary, secondary, college, or university level. These three are health services, healthful school living, and health instruction—and all are interrelated. Each supports the others, and all are directed to

getting and keeping the best health possible among school children and school personnel.

### PROGRAM OBJECTIVES

The general objective of a school health program is to provide the opportunities and services which make it possible for school children and school personnel to attain and maintain good health.

Three objectives which are more specific are these: (1) to protect and improve the health of school children and school personnel by making adequate health services available to them; (2) to bring about improvements in the health practices, attitudes, knowledge, and beliefs of students and school personnel through health instruction and sound learning experiences; and (3) to provide a safe and healthful environment for teachers and students in order to protect their health and to make learning experiences more meaningful.

### WHO IS INVOLVED

Many persons contribute to school health improvements: school and health administrators, teachers, physicians, dentists, nurses,

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health education workers, sanitarians, parents, community leaders, school custodians, cafeteria foodhandlers, students, school builders and architects, public safety officers, and nutritionists.

### SCHOOL HEALTH PROBLEMS

Shortages of personnel and resources in schools and communities are some of the reasons why school health problems go unresolved.

*School administrators.* Some school administrators have limited training, or no training at all, in health education. Some do not understand the importance of school health, and others, who *do* understand, are faced with several problems: a school program that is not flexible enough to allow time for health instruction; overcrowding of school children in classrooms; limited teaching staffs and crowded curriculum; inadequate sanitary facilities and services; and the lack of interest of parents in school health activities.

*Teachers.* A majority of teachers do not receive adequate basic preparation in health education. Instructional materials and audio-visual aids to support health teaching are limited. Those teachers who do have health training receive theoretical health teaching which is unrelated to real-life situations.

*Workers in the school health program.* These people are the sanitarians, physicians, dentists, nurses, and health educators. Unfortunately, many of them spend more time trying to cure diseases than in preventing

them. They often have poor working relationships with the school authorities, and they seem generally indifferent toward school health and their health education responsibilities. Many have had limited training in school health work.

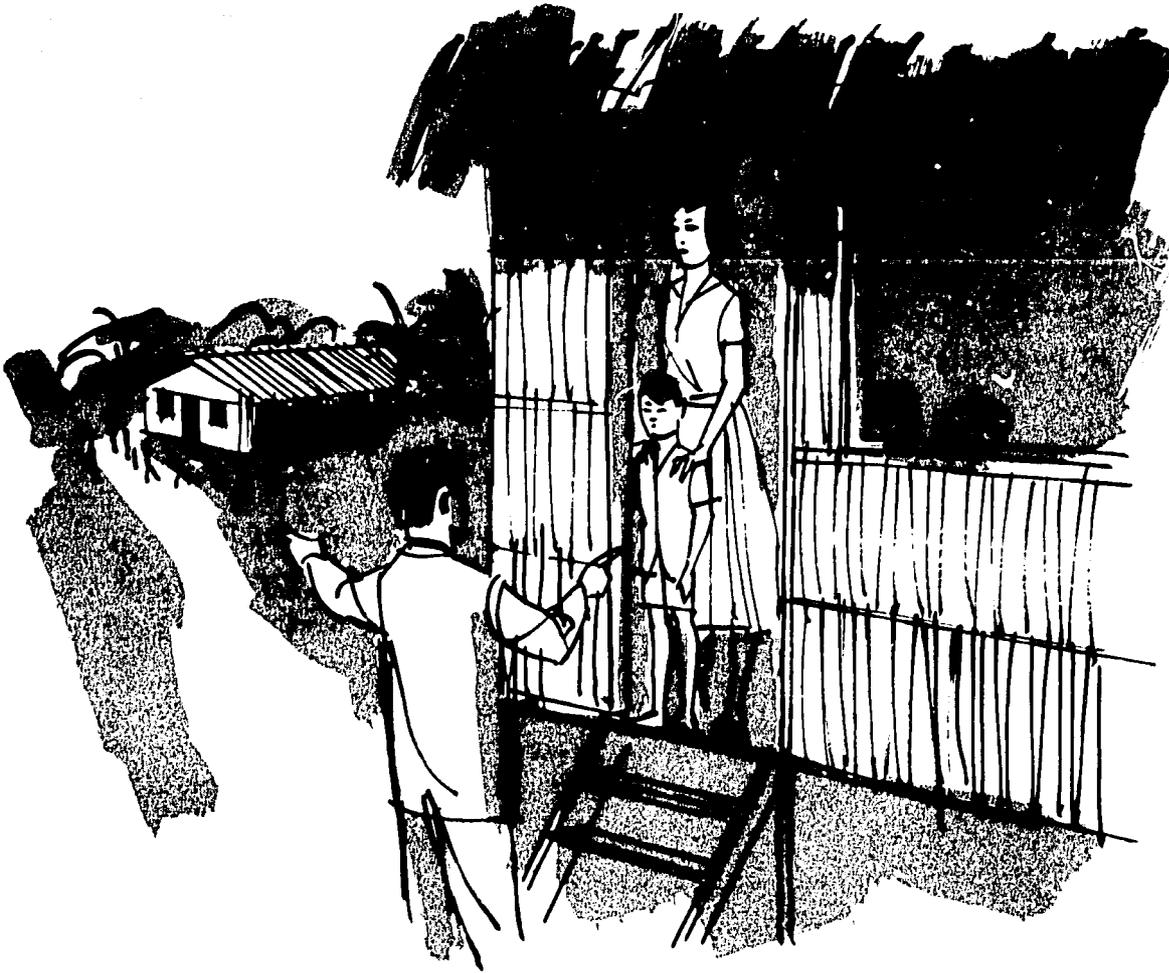
*Parents and community leaders.* Some parents are indifferent to their responsibilities for protecting the health of their children. Often they do not understand the relationship of personal and environmental hygiene to the well being of their children.

*Custodians.* Usually custodians (laborers, sweepers, school attendants, janitors) know little about sanitation and its relationship to health.

*Foodhandlers.* These persons (cafeteria workers, waiters, etc.) seldom have enough knowledge about basic health and personal hygiene. They have only limited training, if any, in menu planning and food preparation and handling.

*Students.* Seldom do students have the chance to use the health information they get in school because there are no facilities. For example, even though the children may be taught proper hand washing methods, there are no facilities in the school for them to actually wash their hands. The students may want to follow the health practices they have learned in school, but their parents may not permit or help them to do so because the parents do not understand how important proper health practices are to growth and development.

*School builders.* Most of the people who build schools in rural areas have no idea that school houses are more than classrooms



and doors. If school personnel were involved with these builders in the planning and construction of school buildings, provisions could be made for health rooms, sanitary facilities, proper ventilation and lighting, and so on.

*Public safety officers.* Public safety officers are often inexperienced, have limited educational qualifications, and are not involved in the planning and organization of the safety aspect of the school health program.

*Nutritionists.* Often, they do not understand their role in the total school health program, and some do not have sufficient

knowledge of food habits and practices in the community to be effective in improving eating habits.

### IDENTIFYING EDUCATIONAL NEEDS

Educational needs of the school health program can be identified by making health surveys in the school and the community. The surveys may be carried out through observation visits, conferences with school authorities and parents, and an analysis of health and absentee records.

Discussions held during workshops, in-

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stitutes, and seminars can help identify needs. Additional information can be obtained by studying vital statistics. An analysis of the curriculum in those institutions which prepare health workers or teachers and in the elementary and secondary schools will reveal training and curriculum needs. A school-health community council is valuable in pinpointing other needs.

### PREPARING HEALTH AND SCHOOL PERSONNEL TO ASSUME RESPONSIBILITIES

Health workers, school personnel, and other persons involved in the school health

program are usually aware that they have certain health education responsibilities. Most of them need help, however, before they can effectively assume these responsibilities. For example, all personnel should have training in health education. They should receive close supervision and guidance, have data available to them for study and progress measurements, and be provided with at least the minimum health and training facilities. They should be given incentives to increase their interest in health work through public recognition of satisfactory service, the granting of scholarships to deserving workers, job security, and good salaries.

**STUDY AREA II: *Planning the educational component of the school health program and preparing for its implementation.***

**INTRODUCTION**

Planning the educational component of a school health program involves a number of persons in both the school and the community. Developing the plan and then carrying it out depends upon what information and resources are available. This information and the resources necessary will come from several areas, so there is an urgent need for careful planning and coordination of effort. Careful planning will result in a better understanding of responsibilities, good working relationships, and the best use of available resources to reach the desired goals.

**INFORMATION REQUIRED**

Certain basic information is required in order to plan and develop the educational component of the school health program.

*Information about the school.* It is important to get information in three main areas concerning the school:

1. Organization and administration

- How big is the area served by the school?
- How many students are now enrolled, and how many can be expected to enroll in the next few years?

- How many classrooms are in the school building?

- How many students are enrolled in each class?

- What is the teacher-pupil ratio?

- What is the educational background, experience, and health condition of the school staff?

- Are adequate funds available in the budget for health improvements?

- Are records kept on physical examinations, medical treatment, and absenteeism?

- What is the school policy on attendance?

2. Existing facilities and school health services

- Are eating facilities available at the school?

- Does the school have a library, dormitories, enough desks and tables?

- Are sanitary facilities (toilets, lavatories, drinking fountains, etc.) adequate?

- Does the school have proper ventilation and lighting?

- Is there a safe playground?

- Is there a health room, an infirmary, or a school clinic?

- Are provisions made for regular medical examinations and vaccinations?

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### 3. School curriculum

- How much time is devoted to health instruction?
- What is the content of the health teaching?
- Are teaching aids available and, if so, what are they? How are they used?
- What is the total time schedule and curriculum for all subjects and activities?

#### *Information about the community.*

There are many facts which will be important about the community, as these facts are related to school health

1. Who makes decisions in the family, in the community?
2. What is the average educational level of the villagers?
3. What is the financial situation in the village?
4. What are the most serious health problems?
5. What community resources are available for use in a school health program?
6. How does news travel in the community?
7. Is transportation available to nearby health facilities?
8. Do the elder members in the community express an interest in the school?

*Other information.* Supplementary information can be obtained from national or international studies and surveys made on school health problems, such as nutrition and growth and development.

## WHO IS INVOLVED

All people who can help improve environmental conditions in the school, as well as those who can influence the school children to develop good health practices, should be involved in the development of the health education plan. These persons include school and health administrators, teachers, physicians, dentists, nurses, health education workers, sanitarians, parents, custodians, foodhandlers, students, school builders, nutritionists, and public safety officers.

It would be impossible for any *one* person on the school or health staff to effectively plan or carry out *all* the health education approaches and activities required for a successful program. It is necessary, therefore, for all of the persons listed above to do their part if program goals are to be reached. *Best results are obtained when all who will be expected to carry out a plan help to develop that plan.*

## HOW AND WHEN THEY ARE INVOLVED

The planning of the program is divided into three stages in order to determine when and how the various persons should be involved in developing the school health program and its educational component.

*Preplanning.* At this stage, school and health administrators, teachers, and other health personnel can meet to discuss and identify school health problems. Data collection is a part of this stage of planning.

*Planning the action.* During this stage,

the number of persons involved should be increased to include parents, community leaders, foodhandlers, school builders, nutritionists, public safety officers, and student representatives.

*Planning to carry out the program.* The participation and cooperation of all persons mentioned above is necessary during this stage for the success of the school health program.

#### FUNCTIONS OF THE PROGRAM ADMINISTRATOR AND THE HEALTH EDUCATOR

The functions of the program administrator and the health educator which relate to the educational component of the program often overlap, but each of them does have certain specific duties. These duties or functions are discussed on the following pages.

#### DIAGNOSING NEEDS AND PLANNING TO MEET THEM

The *program administrator* needs to know exactly what the problem is before he can decide what the program should include. He authorizes the program and provides budget, personnel, and facilities for carrying it out. He reports problems and progress to the provincial directors of education and health and seeks their help in finding suitable solutions. He encourages his staff to give greater attention to their health education responsibilities.

The *health educator* helps to plan and carry out a school-community health survey.

He confers with health workers, community leaders, school staff, and school authorities or administrators who can help in diagnosing and interpreting the educational needs of the school health program. He asks for the assistance of statistical personnel to analyze and interpret data, and he conducts educational surveys to find out how knowledge, attitudes, habits, and practices among teachers, students, and parents will affect the program. The health educator encourages the participation of community agencies interested in the school health problems, explores with them the possibilities of obtaining budget, and helps determine the resources needed to achieve program goals. In addition, he provides for continuous evaluation of the educational plan and recommends policy changes to the administrator when they seem necessary.

#### TRAINING PERSONS RESPONSIBLE FOR CARRYING OUT THE PLAN

The program administrator and the health educator have a joint responsibility in identifying, securing the participation of, and providing training for the individuals and groups who will be responsible for carrying out the educational plan. They also have certain specific duties, listed below.

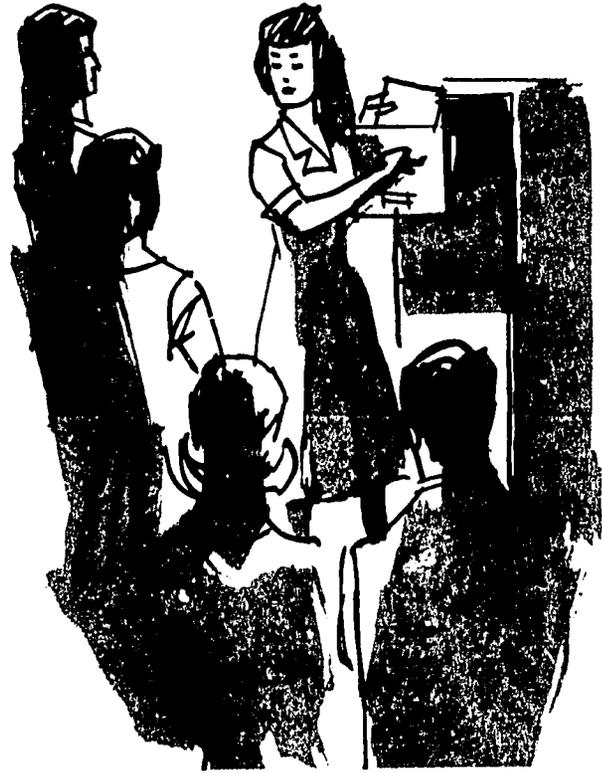
The *program administrator* provides funds and facilities for the training program, and he encourages teachers and other persons concerned to take advantage of the training opportunities made available to them. He also encourages and supports the preparation and pretesting of materials, and checks them for technical accuracy.

## SCHOOL HEALTH—II

The *health educator* provides leadership in planning, organizing, conducting, and evaluating health training programs for those who are to help with the school health program. He develops teaching aids and secures the participation of individuals and groups with technical skills and knowledge who can contribute to the training program. The health educator also helps the administrator in keeping higher authorities informed of problems and the progress made toward their solution.

### IDENTIFYING BEHAVIORAL SYMPTOMS

The *program administrator* provides for a continuous evaluation of the program. He must develop a sensitivity to needed changes or deviation in program operations that may become apparent as the program develops. The program administrator keeps abreast of problems and progress by conferring with technical staff concerned with the various aspects of the educational program. And he provides opportunities for people to make and record observations and suggestions as they relate to the conduct of the program.



The *health educator* keeps up to date with what is happening in the program through observation, interviews, and conferences. He sets up a system for the staff to make and record their observations. In addition, he analyzes and evaluates the information he gets from the staff and committee workers, and keeps the program administrator informed of whatever changes may be required.

### STUDY AREA III: *Proposed steps for beginning a school health program in Bananaville.*

#### INTRODUCTION

The two study areas just covered deal mostly with theory and "what should be done." This third study area is concerned with the application of this theory to a realistic but imaginary situation.

Before going further in this section, turn back to the Introduction of the book and reread the discussion guide for Study Area III.

#### GATHERING NECESSARY INFORMATION

The conference group knew, from studying the discussion guide, that a health educator had been assigned to Bananaville and had been asked to concentrate his efforts on school health problems. The remainder of this section is presented as if the conference group were that health educator.

The health educator immediately began to collect information about Bananaville from the files and through conferences with staff members of the Piña District Health Center and the Provincial Health Office. Additional information about health problems, the school, and leadership in the village, was obtained after he arrived in the village.

The teachers, especially those who lived in the village, provided valuable information

about the attitudes, relationships, and feelings of the parents toward the school. The health educator was told that most people in Bananaville are proud of their school and willing to help the teachers get the equipment and supplies that they need. The teachers did not know, however, whether the parents would help with a school health program, but felt that they might if they believed it would be good for their children. It was readily admitted by the teachers that they had not given much attention to the health problems of their students. All of them have large numbers of pupils in their classes and, as they said, there is hardly time enough to cover the subjects they are required to teach. This sort of information, not found in official reports, provided good leads for the health educator as he made his first contacts with the village population.

#### INFORMATION PERTAINING TO SCHOOL HEALTH

*School.* The school serves only the area of Bananaville. There are 168 children enrolled in the school, a total of 60 percent of those who are of school age. The school building has five classrooms, and there are five teachers. Grades 1 through 4 are taught by one teacher each, and grades 5 and 6 are combined and taught by one



teacher who also serves as principal of the school. There are 44 pupils in grade 1, 40 in grade 2, 40 in grade 3, 25 in grade 4, and 19 in grades 5 and 6. All the teachers are normal school graduates, but not one of them has had training in health education.

The school has two latrines with accommodations for four persons in each. The water for school needs is carried from one of the village wells. The children usually have this task, and they are accustomed to covering the cans containing the water with bush or twigs to prevent spilling.

*Community.* The health educator learned that there are beliefs and practices in the community which are of special significance in the solution of school health problems. He found that the people prefer river water or open-well water because they believe that water exposed to the sun is safer. Large jars are used to store rain

water, and these jars are rarely covered. One dipper is used by all members of a family to drink the water. River water is used for drinking, bathing, and laundry.

The health educator also learned that the people prefer salt fish to fresh-water fish, that milk and eggs are used for special occasions only, and that each family member has his own plate, bowl, spoon, and cup for tea or coffee. Eighteen households in Bananaville have sanitary latrines; members of the other 122 households use the bush or rice fields for defecating. The houses are made of wood, 3 to 4 feet off the ground, and supported by stilts of wood or cement. The villagers make little use of the health services available to them.

The villagers are of one religious faith, there is a village council, and the village headman controls the council, which has six members.

The health educator learned that the main source of income for the villagers is from the sale of rice, and that this income is supplemented by the sale of bananas, coconuts, eggs, citrus fruits, and milk. Each household owns a water buffalo, and some families raise chickens. Both the land and the houses are usually rented from landlords.

Community resources in health include a dispensary and first-aid station in Bananaville serviced by a visiting staff from the Piña District Health Center and the provincial health office.

Health personnel consists of the following: the village health worker who has been trained to provide first aid and to give simple medicines, a sanitation aide, the staffs of the district health center and the provincial health department, the provincial and districts staffs of the malaria eradication program and the staff of the BCG program.

The organizations in Bananaville are the 4-H Club and the PTA.

Bus service to Papaya and to the provincial capital is available, 30 percent of the homes have transistor radios, comic books are popular among the children, and a weekly newspaper is published in the provincial capital but only a few people in Bananaville buy it.

The health educator learned that 75 percent of the villagers complain of stomach or intestinal disturbances, that typhoid outbreaks occur from time to time, and that bacillary dysentery is endemic. Seventy percent of the population are said to have parasites including hookworms, round-

worms, and pinworms. The infant mortality rate is high and a great number of deaths are due to gastro-enteric diseases. Whooping cough is a serious problem among preschoolers, and the majority of youngsters taken to a hospital are dehydrated or have severe anemia. The number of cases of tuberculosis and venereal diseases is not known, but suspected by the doctor to be high. Malaria has not been eradicated in Bananaville, but the number of cases has been greatly reduced within the past 3 years.

Health teaching has not been introduced into the curriculum of the normal school from which the teachers came, much less in the village grade school. The school does not have an infirmary or health room, library, playground equipment, or a special room for serving lunch. The school authorities do not require teachers or pupils to have physical examinations. The school staff does not send sick children to the village dispensary or keep any record of the illnesses or accidents that occur among their students.

#### OUTLINING A PLAN OF ACTION

Following a period of data collection, orientation, and getting acquainted with Bananaville and the school in particular, the health educator outlined a tentative plan of action for the time he would work in the village. The plan was developed with the help of the Piña District health staff and the health workers of the village dispensary.

## ESTABLISHING GOALS

Realizing that his assignment would be a short one and that the problems were varied and numerous, the health educator tried to establish some realistic goals which would serve as the first steps in improving school health conditions—in other words, goals that would serve as the foundation for a long-range school health program.

The following were set up as the health educator's primary goals:

1. Establish good working relationships with the village council, school personnel, community leaders, and other workers in Bananaville.
2. Improve relationships between school personnel and health workers.
3. Find opportunities for villagers, school personnel, and other workers to help identify health problems, and find ways of gaining their cooperation and participation in working out solutions.
4. Review, with the teachers, the school curriculum and try to interest them in developing a school health instruction program.
5. Explore the possibility of organizing a training program in health education for teachers.
6. Interpret needs and suggest some ways of meeting them to the school and health authorities at the provincial level.

## CARRYING OUT THE PLAN OF ACTION

It should be remembered that the health educator had been assigned to spend 1 week

each month for 6 months in Bananaville. Therefore the weeks shown below did not occur consecutively, but had 3-week intervals between each one.

*First week.* The health educator spent this week getting acquainted with the village. He talked with members of the village council and with the teachers, and met with the physician, nurse, village health worker, sanitation aide, local midwives, and the two medicine men. The purpose of these contacts was to give him a chance to become familiar with their work, their problems, and their attitudes toward doing something to improve the health of the school children.

During the first week, the health educator arranged a meeting with the village council and some of the other community leaders. His purpose was to get acquainted, to explain why he had been asked to help with school health problems, and to learn what they considered to be the problems and needs of the school and the school children.

In addition to his other activities, the health educator kept his eyes and ears open to learn as much as he could about general conditions in the community, especially those related to school health.

*Second week.* With the help of the physician, nurse, and teachers, the health educator began to plan for physical examinations of teachers and pupils to determine the health status of the school population. The group developed a simple school health record for recording the findings of the physical examinations.

During this week, plans were made to organize a school health committee. Those who thought it would be a good idea to form such a committee and said they would be willing to be members included the village headman, the school principal, the physician, the nurse, the village health worker, the sanitation aide, the religious leader, the local medicine men and midwives, a 4-H Club representative, the adult education officer, the home economist, and several parents.

The health educator arranged for a laboratory specialist to make an analysis of the water from the two village wells and from the other water sources used by the villagers.

He was able also to get the provincial radio station to broadcast information about the plans being made in Bananaville to improve the health of teachers and students.

*Third week.* The health educator arranged a meeting of the school health committee. It was decided by the committee that they would try to promote a closer relationship between the school and the community, to develop better understanding of responsibilities and opportunities for health improvement, and to find ways to improve school health facilities through community action.

Other items discussed at the meeting were: (1) the possibility of undertaking a village fund-raising activity to provide for safe water and playground equipment for the school; (2) ways to improve the safety and beauty of the school environment; and

(3) the need for the committee to hold regular meetings.

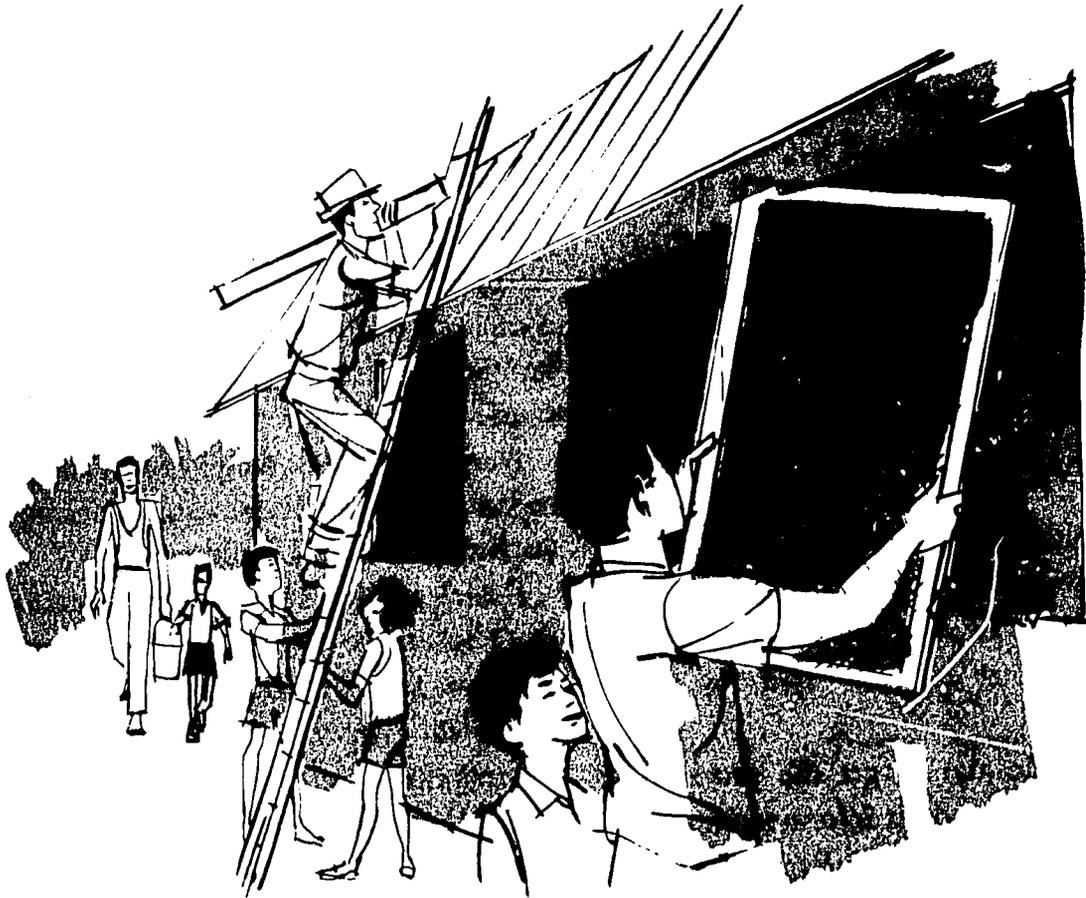
The health educator planned a short training program in health education for the teachers, and he involved the teachers, nurse, and physician in developing the plan. At the end of the week, he reviewed and completed, with the help of the school and health administrators, the plans for a short course in health for the teachers.

During this week the physician and nurse began giving physical examinations to the teachers and school children.

*Fourth week.* The training program for the teachers began this week. It was to continue for 6 months with one session scheduled each week. The objectives of the training were: (1) to help the teachers acquire knowledge regarding prevalent diseases, their causes, symptoms, the ways they are spread, and the measures that can be taken to prevent them; and (2) to create an awareness among the teachers that they can help improve the health of their students and that it is to their advantage to do so.

The subjects to be covered in the training included personal and community hygiene, and the causes and ways of preventing the communicable diseases prevalent in Bananaville. Also included were basic facts about nutrition and first aid in emergency cases.

A variety of instructional methods were to be used in the teacher training program, such as lectures, discussions, demonstrations, role-playing, panels, project development, and field trips.



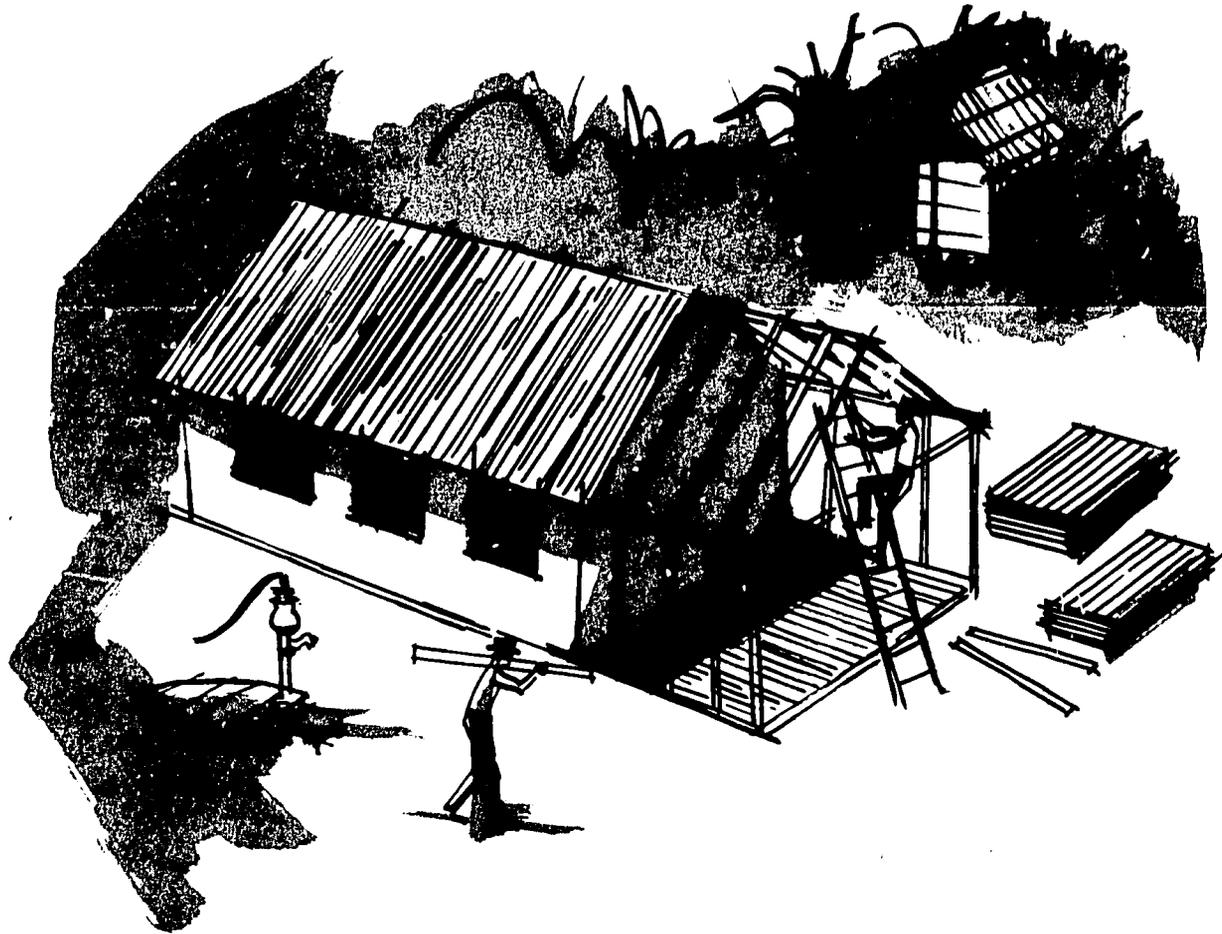
The resource persons who were invited to participate in the training program included the physician, nurse, epidemiologist, village health worker, sanitation aide, adult education officer, agricultural extension agent, laboratory technician, and the home economist. Members of the staffs of the provincial health office, provincial hospital, and provincial education department were invited to help and agreed to do so.

*Fifth week.* The school health committee met to make a progress report on their fund raising activity for the well and playground equipment at the school. At this meeting, the physician and nurse gave a report of the findings of the physical ex-

aminations given to the teachers and school children.

*Sixth week.* The school health committee held another meeting to review the progress made since their last meeting and talked about future plans. They decided that their next activity would be to construct a health room at the school.

*End of assignment.* The health educator had now completed his assignment in Bananaville, having spent 1 week there each month for 6 months. He had been told by his administrator that he would be able to return to Bananaville from time to time to follow up the activities he had begun. The local staff was anxious for him to do so because they were looking forward to the



development of a long-range program and wanted his help.

#### NEEDS AND RECOMMENDATIONS FOR ACTION

After he had returned to the provincial capital, the health educator brought certain needs and recommendations to the attention of the provincial school and health administrators so that they might develop a successful long-range school health program in Bananaville.

*For the school administrator.* The health educator suggested to the school administrator that a system of reporting and recording absenteeism in school was needed

in order to determine which absences were caused by illness. The health educator also suggested that the teaching staff in Bananaville be increased to meet present and future enrollment, and that plans be made for continuing the in-service training for teachers in health education which was underway. He pointed out that funds were needed for making sanitary improvements and for the development of educational materials for health teaching.

He suggested that health education courses be introduced in the curriculum of normal schools so that future teachers would be prepared to give health instruction, and that health instruction be included

### SCHOOL HEALTH—III

as an integral part of the curriculum of the elementary schools. He mentioned that there was a need for policies on referral for health care, physical examinations, and maintenance of health records. He also recommended to the school administrator that consideration be given to making health instruction a part of the adult education literacy program underway in the province.

*For the health administrator.* The health educator made several suggestions to the health administrator: that all health workers be encouraged to be more observant about the health habits of children and parents; that the services provided to the residents of Bananaville include immunizations, X-rays, and periodic health examinations for children and adults; that an

epidemiologist be asked to make studies in Bananaville and give technical help to the laboratory technician who is working in a deworming program for school children; and that funds be provided to support the health education activities carried on by the physician, nurse, sanitation aide, and village health worker in Bananaville.

In addition, the health educator recommended that the school and health administrators consider the organization of a school health committee at the provincial level to ensure coordination of effort on the part of school and health personnel. He suggested that the committee membership include representatives from all agencies and groups that could contribute to the development of the long-range school health program.

## STUDY AREA IV: *Selecting educational tools and identifying behavioral symptoms.*

### INTRODUCTION

In Study Area III, the principles and theories that were covered in Study Areas I and II of the school health program were applied to an imaginary situation.

The problem dealt with in this section is also built around an imaginary situation. Again, it will help you to understand if you turn back to the discussion guide for Study Area IV in the Introduction of this book, and read it again.

The discussion guide tells you that the problem for the conference group had two major parts: (1) to select and describe some of the educational materials that they believed would help the health workers and the community leaders in Bananaville teach others in the village about the school health program; and (2) to consider the attitudes or kinds of behavior practiced by the villagers that would show that they did or did not believe that the program had merit.

### AN EDUCATIONAL TOOL FOR THE TRAINING PROGRAM

The health educator, the health staff, and other persons involved in the teacher training program in Baranaville decided to use the flannel board as an educational aid. They knew that the learning process takes place more easily when experiences are

provided through hearing, seeing, and doing.

*Reasons for selecting the tool.* The flannel board was selected because the materials needed would be relatively inexpensive, it could be made locally, it would be easy to design and make, it could be used to present ideas in a realistic manner, and it could be used with both large and small groups. Other reasons for selecting the flannel board were that it could be used on different occasions for a variety of purposes, it would not require electricity, and the illustrations could be easily obtained, arranged, removed, or shifted to make presentations interesting and novel.

*Uses of the tool.* The flannel board was used: to make the presentation clear, interesting, colorful, and vivid; to allow for continuity of thinking on the part of the audience; and to make it easier for the teacher to convey ideas and messages. In addition, the flannel board was used to help stress particular points, to make teaching effective through logical arrangement and sequences of illustrations, to help make comparisons, and to show changes or to tell progressive stories. Other uses were to encourage group participation and questioning, and to emphasize the most important item within a total subject area.

*Materials needed.* The flannel board was

easily made in Bananaville. The materials used were: sandpaper, bamboo frame, paste, pictures, nails, hinges, cardboard for backing pictures, and jute bag instead of flannel because sandpaper would adhere to it just as well as to flannel.

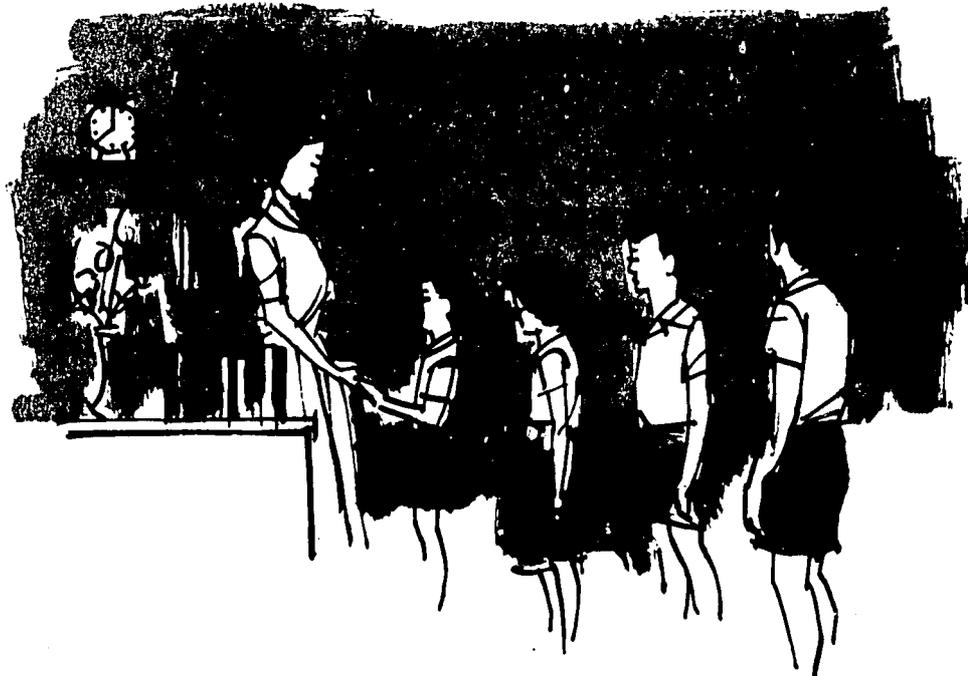
*Content.* For the teacher training program, the flannel board illustrations dealt with the diseases which were most prevalent in Bananaville. These diseases were typhoid fever, whooping cough, tuberculosis, and dysentery.

Symptoms of some of the diseases (or illnesses) that occur among children were: nausea, vomiting, coughing, excessive perspiration, paleness, flushing, failure to gain weight, difficulty in breathing, chills, skin rashes, temperature rise, tiring easily, reddening of the eyes, loss of appetite, lack of energy, discharge from the ears and eyes, and enlargement of the lymph glands especially of the neck.

Another series of illustrations covered the subject of how germs enter the body. For example, the germs which cause typhoid and dysentery were shown entering the body through the mouth, those that cause whooping cough and tuberculosis through the nose, and so on.

Also illustrated were preventive measures, such as personal hygiene, proper rest and sleep, immunization, moderate exercise, regular health examinations, environmental sanitation, proper nutrition, and early diagnosis of illness.

Another series of illustrations showed the role of the teachers in detecting and managing illness in school, such as: detecting signs of illness through the morning health inspection, isolation of suspected cases, referral of cases to physician and nurse; and health counseling of parents.



*Suitability of the tool.* Before using the flannel board in the teacher training program, the health educator and the health staff pretested the materials which were to be shown on it with members of the school health committee and with those persons who were to be involved in the training of the teachers.

A written test was given to the teachers before any of the flannel board presentations were made. After the tool was used, the same test was given to discover whether their knowledge of the subject had been increased. Oral questioning was also used to measure an increase in the teachers' understanding and knowledge about the various subjects presented.

#### AN EDUCATIONAL TOOL FOR OTHER ACTIVITIES

The teachers decided to use the flannel board in their own classes. By using the same educational aid as the one used in the teacher training program, they were able to save time and money—both of which were at a premium in Bananaville. They found the flannel board to be a simple, attractive teaching aid that helped hold the attention and interest of the pupils because of the colorful illustration.

*Purposes of the tool.* The purposes of the flannel board, when used with grade-school children, were to stimulate participation, to create lively discussions, to convey and stress facts clearly and simply, to help the children remember facts, and to make instructions visual.

*Use.* It was decided to use this visual aid with grades 1 and 2 in the Bananaville school. The primary objective was to help the children learn and develop better health habits, practices, and attitudes.

*Content.* Because of the high percentage of gastrointestinal diseases among school children, it was decided to begin health instruction in the school by teaching the importance of good personal hygiene practices.

The health educator, along with the health staff and the teachers, decided what to teach by analyzing information in records and other sources. The nurse provided valuable suggestions and ideas for the lesson plans by telling about the observations she had made during home visits.

On the subject of personal hygiene, several lessons were devoted to "getting ready for school every morning." Items illustrated on the flannel board were: brushing teeth, taking a bath, combing hair, keeping hands and fingernails clean, washing hands before eating and after using the latrine, using the latrine properly, wearing shoes and clean clothes, using a handkerchief when sneezing and coughing, and eating the right food for breakfast.

*Pretesting the tool.* The messages designed for presentation on the flannel board were pretested with a group of school children from the first and second grades to learn whether the pictures could be seen easily and recognized from different parts



of the classroom, whether the colors were pleasing, and whether the children understood the information presented.

*Training teachers to use the tool.* The teachers learned how to prepare and use the flannel board during their in-service training program. The health educator helped them make a flannel board for the school and develop the lesson plans. Together they selected the illustrations that would be understood by first and second graders.

*Evaluating effectiveness of the tool and the teaching.* The effectiveness of the tool and the teaching that accompanied it were evaluated through observing changes in the pupils' health practices and their attentiveness during classroom discussion. Observations were made by teachers and health staff through home visits to see if the students

continued to practice good health habits at home. Attempts were made to determine whether the students showed an increased interest and understanding. Their answers to questions and the extent of their participation in discussion were also considered.

#### IDENTIFYING BEHAVIORAL SYMPTOMS

The health educator and others involved in the activities of the educational treatment plan agreed on what they should watch for as the program progressed, so they would know whether there was need for making changes in their plans. They were especially interested in:

1. Skepticism which might develop about the need for the school health committee.

2. Comments made about the program by certain villagers such as the headman, medicine men, and religious leader.
3. Indifference on the part of any of the teachers toward the in-service training program.
4. Irregular attendance at committee meetings, failure of the members to carry out the plans made by the committee, or arguments or failure to reach decisions during committee meetings.
5. Slowness on the part of the village leaders to help with the school health program.
6. Conflicts with traditions and beliefs which might occur as a result of introducing new methods.
7. The degree of cooperation and support given to program plans by the villagers.

*Ways of identifying symptoms.* Symptoms which indicated that problems might develop were identified through informal conversations where people were allowed to talk and express freely their feelings and ideas. Symptoms were also identified by observing the people's participation in each step of the program, through discussions with the health staff and members of the school health committee, and through observing improvement or nonimprovement in health practices.

*Evaluating the symptoms.* The information and impressions gathered were verified by the health educator through observations and discussions, in order to know what adjustments were needed.

*Making adjustments.* An evaluation made during the first stage of the school health program in Bananaville indicated to the health educator that changes needed to be made in program plans.

Although the teachers had requested the health staff to give them health instruction, some of the teachers did not seem very interested in the classes. One complained that, because the classes were held on Saturday, she had the additional expense of staying in the village an extra day. Another teacher remarked to one of the parents that she was already overworked and could not teach health along with everything else she was expected to do. All of the teachers were concerned because they felt that the health training would not contribute to their service credits. There were rumors that the teachers wondered whether they should attend the training program since the leadership was provided by the health department and not by their own education department.

As soon as these attitudes and opinions came to the attention of the health educator, he consulted with the health staff.

It was decided that the best approach would be to talk with the teachers as promptly as possible to let them know that the health staff did not have any desire to impose an additional work load on them, and that they understood the reasons why the teachers were dissatisfied with the meeting time and concerned that they would not receive service credit for the health

#### SCHOOL HEALTH—IV

training. After a series of interviews and a meeting at which all of the teachers were present, the physician from the district health center went to the provincial capital to discuss the problems with his chief and with the provincial director of education.

The provincial authorities agreed to try to make the following adjustments: to give the teachers service credits for the hours given to the health training program; to recommend them for a salary increase; and to help them get educational materials to supplement health instruction in school.

*This report has presented the decisions and opinions of the conference participants on four major areas in a school health program. The imaginary program in an imaginary community called Bananaville has been included to put into practice the theories and principles covered in this section. In this report, or any report, you will not find answers to all the problems that come up in the planning and carrying out of the educational component of a school health program. A careful and serious study of what has been presented here, however, will be of great help to you when you must implement, not an imaginary, but a realistic school health program.*

# A Maternal and Child Health Program





## A MATERNAL AND CHILD HEALTH PROGRAM

STUDY AREA I: *How public health administrators and health educators can effectively help other health workers gain an understanding of health education.*

### INTRODUCTION

The main objective of a maternal and child health program is simple and obvious—to promote the *general* health and welfare of mothers, children, and fathers as well. The activities of a maternal and child health (MCH) program should, however, be aimed at more *specific* objectives: reducing the infant mortality rate, the premature birth rate, miscarriages, abortions, the maternal death rate, congenital malformations, and birth defects. These objectives can be further broken down into the objectives for each target group: men and women in the premarital stage, women in prenatal and postnatal stages, infants, preschool children, adolescents, and the parents of all children.

### OBJECTIVES FOR EACH TARGET GROUP

*Premarital stage.* The objective for the premarital stage is concerned mainly with preventing venereal diseases. During this stage, the aims should be (1) to protect men and women from the transmission of communicable venereal diseases; (2) to protect children from unnecessary exposure to these diseases; and (3) to educate mar-

riage applicants about the prevention of these diseases and about their marriage responsibilities.

*Prenatal and postnatal stage.* This period covers the health of the mother and child from conception through childbirth and immediately thereafter. The objectives are: (1) to provide adequate services for insuring healthy mothers and children and to encourage mothers to use the services; (2) to teach the expectant mother how to care for herself and her child; and (3) to provide trained personnel and facilities to insure a safe delivery. This personnel includes auxiliary health workers and midwives, as well as the physicians, nurses, and others who are engaged in MCH activities.

*Infants.* This group covers children from birth to 1 year of age. The objectives here are to provide proper medical care for the newborn, to provide immunization for diseases that are dangerous to infants, to provide periodic observations and supervision in the growth and development of the infant, and to promote accurate birth registration.

*Preschool age children.* The objectives for this group (ages 1 to 5) are to provide



adequate supervision of the physical, mental, social, and emotional development of the child; to continue necessary immunizations; to encourage parents to develop good health habits and practices; and to teach parents and other family members ways to minimize accidents both in and outside the home.

*Adolescents.* The objective for this group (ages 13, 14, and 15) is to prepare them for the responsibilities of parenthood.

*Parents.* The two objectives involving parents are (1) to encourage them to assume joint responsibility in the proper rearing and education of their children and to fulfill their responsibilities to each other;

and (2) to teach them how to safeguard the health of their children.

### MATERNAL AND CHILD HEALTH PROBLEMS

As with all health programs, MCH programs have their share of problems. Perhaps the most serious of these problems is that—because of community attitudes, habits, customs, and beliefs—fathers and mothers do not follow the medical advice they are given. Some who would, are not able to because the nearest health facilities are too far away to be of much help.

There are many reasons why maternal

and child health programs are not readily accepted by the people. Marriage applicants and their parents often do not understand why they should have blood examinations and chest X-rays. Parents of small children do not understand why they and their children should have immunizations. The local medicine men and midwives understand little about the importance of scientific health practices and often oppose them because they fear they will lose their clients.

As mentioned above, the beliefs of people are often in conflict with what the health personnel teach. For example, some people believe that a mother should be left alone during delivery; others claim that if a pregnant woman takes too much rest this will cause edema. In some groups, the newborn baby is immediately bathed in a pond of cold water; in others, ashes are used on the baby's umbilical cord.

Another reason why health improvements are hard to achieve is because a great many of the people have very little education and are suspicious of new ideas. Many cannot read or write, and are generally uninformed about proper health practices.

It is often the case that mothers must work in the fields; when this is the situation, sometimes those who are left in charge of the small children do not give them proper supervision and care. Little attention is given to preventing the accidents which occur in and around the home. Frequently the community leaders do not understand any of the problems in MCH, and so they have no reasons to want to solve these problems.

The lack of good transportation and communication facilities causes problems, too. In many areas, the people must travel great distances to get to a health facility. When the roads are poor it is almost impossible for them to get medical help, and health personnel have difficulty in reaching the "stranded" communities. In areas where communications, such as radios and newspapers, are not available, the people are not able even to hear or read about proper MCH habits.

Lack of administrative support and poor management of public health programs is yet another reason why MCH problems exist. If this help does not come from those persons who have authority, the individual health worker cannot carry out his activities efficiently and as a result may spend very little time on health education activities.

## IDENTIFYING EDUCATIONAL NEEDS

A survey is one method that can be used to help identify the educational problems related to MCH improvements. This method can be applied to studies on attitudes, beliefs, and practices within the target groups, to studies of how well the MCH services are being used, and to studies on changes brought about in knowledge, attitudes, beliefs, and practices as the result of an MCH program.

Other ways of identifying the educational problems are to study the findings obtained from surveys and research by other agen-

## MATERNAL AND CHILD HEALTH—I

cies; to observe MCH workers in their informal day-to-day contact with the people; to give careful attention to the reactions of individuals taking part in meetings and conferences where MCH problems and programs are being considered.

### PREPARING HEALTH WORKERS TO ASSUME RESPONSIBILITIES

Program administrators and health educators can use several methods to help prepare health workers to accept and assume their health education responsibilities in the MCH program. First, health education courses can be included in the basic curriculum of all MCH training programs. MCH experts and administrators can par-

ticipate in conferences and meetings of health educators so they can give help when it is most needed. Health education concepts can be presented at meetings and conferences of public health administrators and other MCH workers. Health education personnel can be involved in all MCH planning council or committee meetings.

Other methods of preparing the workers are these: using every practical means to keep them abreast of current MCH activities and inform them how these activities affect their work; encouraging them to write articles regarding educational opportunities in the MCH program; and finding ways to improve the informal day-to-day human relationships among MCH personnel.



*STUDY AREA II: Planning the educational component of the maternal and child health program and preparing for its implementation.*

## INTRODUCTION

The health education component of the MCH program is that part of the program which is concerned primarily with the behavior of the people. The health education component includes the educational processes, methods, techniques, and tools required to achieve program goals.

## INFORMATION REQUIRED

Planning for the educational component of the MCH program requires a thorough knowledge of the total MCH problem and program, as well as the community where the problem exists and where the program is to be carried out.

Information is needed about the target groups and the resources that can be used to carry out the program. More specifically, this information includes the following details: (1) MCH personnel—including who they are, what training they have, and where they can get more training; (2) finance—including the amount of funds available for personnel training, production of educational materials, and carrying out the educational treatment plan; (3) statistical data on the number of women of child-bearing age, the number of infants and preschool children, maternal death rate, infant

mortality rate, and the stillbirth and premature rates; (4) data on any other health problems related to MCH; (5) composition and characteristics of target groups—including ethnic and cultural characteristics, socioeconomic status, and educational level; (6) community power structure and leadership pattern; (7) existing channels of communication; (8) existing community resources which may be used in the program; and (9) previous MCH programs in the community and reasons behind successes and failures.

## WHO IS INVOLVED

Planning is a cooperative endeavor and should therefore involve the various people who are to carry out the plan. Those people whose participation should be encouraged in planning the educational component of the MCH program include the following: program administrator and local health officers, civil administrators, public health workers, representatives of other governmental health and allied agencies, representatives of voluntary health and allied agencies, school personnel, civil registrars, government information officers, and national and international experts in MCH and health education.

## MATERNAL AND CHILD HEALTH—II

### WHY THEY ARE INVOLVED

Some of the persons mentioned above have primary responsibility for the health of the target groups. The approval and financial support of some are needed to insure a continuing program. Some of them are in the best position in the community to explain the program objectives to the people, thereby encouraging community participation and support for the program.

Other reasons why the aforementioned people are important to the development of the health education plan are that some have opportunities and responsibilities in health education; others can assist in the identification, assessment, and solution of MCH problems; and some can provide the equipment, facilities, and services needed for the program.

### WHEN THEY ARE INVOLVED

Leadership in planning the educational treatment for the MCH program may come from either the program administrator or the health educator. In either case, the planning includes three stages.

*Preliminary stage.* The first stage is that in which only the professional public health staff is involved. They develop the preliminary outline of a plan for the health education component of the program. In this preliminary planning stage, those who can contribute most are probably the nurse supervisor, the program administrator, the

dentist, the health educator, and the chief sanitarian.

*Intermediate stage.* This stage is that in which the MCH and health education experts from national and international agencies participate to review what the staff has developed and to add whatever suggestions they have. In addition to these experts, all the persons mentioned in the first stage should be involved.

*Final stage.* The final stage is that in which representative community groups are involved to consider the outline of the plan, to suggest changes, and to participate in the development of a total educational treatment plan. The following people should participate: program administrator, health educator, civil administrators, civil registrars, government information officers, school administrators, and representatives of various community and professional organizations, and of voluntary agencies.

### HOW THEY CAN BE INVOLVED

*Preliminary planning stage.* During this period, the health educator encourages the program administrator to provide opportunities for the staff to examine the educational needs of the MCH program. The staff members should be invited to describe and discuss the current program activities and the problems they are facing in carrying out these activities.

The health educator should help the staff members understand the educational needs related to these activities, and help them

prepare an initial educational treatment plan.

*Intermediate planning stage.* The staff may find it helpful to have national or international technical experts in MCH and health education review the outlined plan and to make suggestions and recommendations.

*Final planning stage.* Throughout the various planning stages, the public health staff members, in their informal contacts with leaders of community groups and organizations, can encourage thinking on specific MCH problems. This will lay the groundwork for involving people from the community in final planning. The people can be involved through (1) discussion of MCH problems during meetings and conferences of community leaders, public health staff, and other interested organizations; (2) appointments on committees to study MCH problems; and (3) requesting help from these leaders in determining the problems to be given priority and in deciding how program goals can be achieved.

#### FUNCTIONS OF THE PROGRAM ADMINISTRATOR AND HEALTH EDUCATOR

Although it is sometimes difficult to draw a dividing line between the functions of the program administrator and the health educator, each of them should assume certain specific duties. These duties or functions are discussed below.

#### DIAGNOSING EDUCATIONAL NEEDS AND PLANNING TO MEET THEM

Both the program administrator and the health educator have specific functions that must be performed in order to accomplish this overall task.

The *program administrator* creates an atmosphere or environment that will encourage effective team work among his staff. He initiates action for diagnosing educational needs. He approves, contributes to, and insures financial support, and he promotes coordination among other agencies involved in MCH.

The *health educator* encourages the community leaders to recognize their role in diagnosing the educational needs and planning how to meet them. He helps the staff establish criteria for evaluating past and present educational activities in MCH. He helps the staff members develop an awareness that there are educational implications and opportunities in every direct service they perform. And he encourages them to recognize the importance of involving the community in planning the educational treatment.

#### TRAINING PERSONS RESPONSIBLE FOR CARRYING OUT THE PLAN

The program administrator and the health educator have a joint responsibility in identifying, securing the participation of, and providing training for the individuals and groups who will be responsible for carrying out the educational treatment plan.

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The health educator plans with the MCH staff what is to be taught and how it is to be taught. He teaches the health education content that is appropriate. The program administrator is responsible for the technical MCH content of the course.

The *program administrator* should know the resources of the community, including the local native or untrained midwives and the private practitioners and others who have had success in their MCH activities. In some instances, the program administrator, because of his close contact with certain individuals and groups with MCH responsibility, is in the best position to identify and to secure their participation in the execution of the plan.

The *health educator* should know the

leadership pattern and power structure of the community, the community resources that can be used in carrying out the educational treatment plan, and the ways by which news travels in the community.

## PROVIDING EDUCATIONAL TOOLS

The *program administrator* gives advice on the technical content of the health education materials, and he secures funds for purchase or production of these materials.

The *health educator* and the staff agree upon the educational materials needed to support the treatment plan. The health educator helps in the preparation, pretesting, and production of these educational materials. He gives advice about their distribution and proper use.



## IDENTIFYING BEHAVIORAL SYMPTOMS

The *program administrator* is responsible for calling to the attention of his staff and the other people involved in the program the importance of being on the lookout for clues that show that program activities are not being carried out successfully. He

helps them analyze their findings and look for reasons behind the behavior they have observed. He plans for adjustments in the program so that the problems encountered will be eliminated or minimized.

The *health educator* helps the staff learn how to identify and determine whether the reported behavioral symptoms are important.



*STUDY AREA III: A health educator works with the maternal and child health program in Bananaville.*

## INTRODUCTION

The two study areas just covered deal mostly with theory and "what should be done." This third study area is concerned with the application of theory to a realistic but imaginary situation.

Before going further in this section, the reader should turn back to the Introduction of this book and reread the discussion guide for Study Area III.

## BACKGROUND

The provincial health officer of Coco Province assigned the health educator on his staff to work with the health staff off Piña District for 1 week a month for a 6-month period. In turn, the Piña District Health Officer requested the health educator to help his staff plan and develop the health education component of the MCH program that was to be carried out in Bananaville.

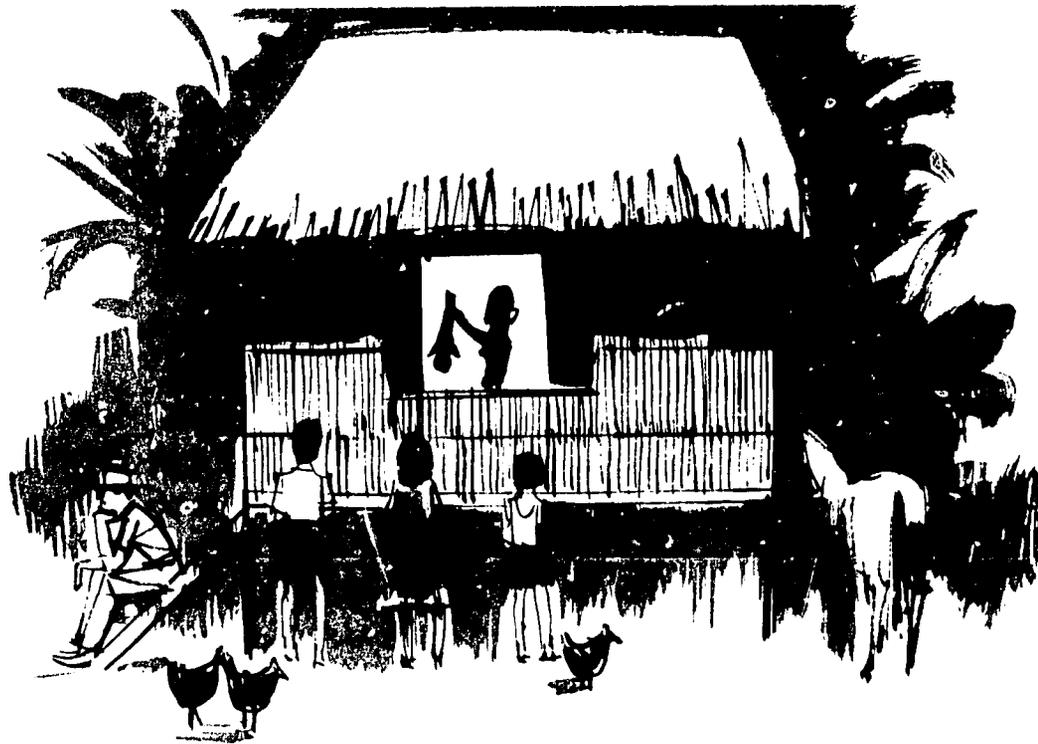
## OBTAINING INFORMATION

As with all other programs, the most important step in planning the health education aspect of the MCH program was the gathering of adequate basic information. The health educator began this phase of his work through conferences with the district health staff, and later with the village

health staff, the people in Bananaville, and the community leaders.

*Information obtained from the district staff.* From the district health officer and staff, the health educator learned that a physician visits Bananaville once a week and conducts a clinic at the dispensary. The physician is assisted at the dispensary by a nurse from the district staff and by the village health worker in Bananaville. The nurse spends another day each week making home visits to discuss problems, to observe conditions and practices, and to give help where needed. A sanitation aide is assigned to work in Bananaville. There are four midwives in the village, two of whom have had training. There are also two medicine men in Bananaville.

The health educator learned there are several MCH problems in Bananaville: there is a high infant mortality rate caused by gastro-intestinal diseases, maternal death rate and birth rate figures are unknown, many young children suffer from severe anemia, many children admitted to the hospital are dehydrated, the number of cases of tuberculosis and venereal disease is suspected to be high, typhoid fever outbreaks occur from time to time, bacillary dysentery is always present, 75 percent of those who



seek medical attention have intestinal disturbances, 70 percent of the villagers are infested with hookworms and other parasites, and untrained midwives deliver most of the babies. Whooping cough is a serious problem in the preschool group.

The nurse told the health educator that a DPT immunization campaign 2 years ago had failed. She felt the failure was due to the fact that the PTA had not been asked to help plan or work in the program. Only 25 percent of the target group were immunized during the DPT program.

In addition to all the above facts, the health educator also learned that the most popular and respected midwife in the village had refused to attend a training program to which she had been invited.

*Information provided by the village health staff.* From interviews with the vil-

lage health workers and the sanitation aide, the health educator learned several important facts. The main source of water supply for the village is from the river or an open well; the villagers prefer this water because they believe that water exposed to sun is safer. Only one well in Bananaville has a concrete slab and a hand pump. The people cover their water containers with bush or twigs to prevent spilling while carrying the water from source to home; nothing is used for covering the water containers while in storage at the home. All members of each family use the same drinking cup. The sanitation aide has not made much progress in getting the people to boil water for drinking. Only 18 households have sanitary latrines; the school has 2 latrines. An average of five people per day visit the dispensary for treatment of

such illnesses as diarrhea, colds and skin rashes. The mothers prefer to have their babies delivered by a local, untrained midwife.

*Information obtained from the headman.* There are 985 people in Bananaville, living in 140 households. The main source of income is from the sale of rice, bananas, and coconuts. An agricultural extension agent and a home economist spend 1 day every 2 weeks in the village; they have helped to establish home gardens and make home improvements. The agricultural extension worker started a 4-H Club which has 22 members. A provincial adult education officer, who has visited the village four times, plans to start a literacy campaign as soon as he can get 30 people to enroll. All the villagers are of one religious faith and one ethnic group. Resistance among the people has developed toward the malaria program; they do not want their houses sprayed because it makes them look dirty, and they do not want blood samples taken because the children cry and run to the fields.

*Information obtained from the school principal.* The school principal and her staff told the health educator that the five-room elementary school has an enrollment of 168 children, representing 60 percent of those who are of school age. Five teachers, one of whom serves as principal, teach all six grades. The fifth and sixth grades are combined because of the small enrollment in these classes. Three of the teachers live in Bananaville. The PTA is small but active.

*Information obtained from other sources.* The health educator met with the agricultural extension worker, the adult education officer, and the home economist in the provincial capital. From them he obtained additional information. Meat protein is lacking in the diets of the villagers. The people prefer salt fish to fresh-water fish, although the salt fish is more expensive. Many of the fresh fruits and vegetables that should be eaten by the villagers are sold at the market. The people rarely use milk and eggs. The agricultural extension agent said that the villagers could improve their diet by increasing production of fruits and vegetables through modern agricultural techniques. The adult education officer reported he was having difficulty in getting 30 people to enroll in the literacy program. Thirty percent of the households have transistor radios. The provincial radio station is anxious to get program materials. Few copies of the provincial newspaper reach Bananaville, but comic books are popular.

#### IMPRESSIONS GAINED BY THE HEALTH EDUCATOR

From the conferences with the persons mentioned above, and from the reports and records, the health educator gained four basic impressions of the situation in Bananaville:

1. The headman is influential but autocratic.
2. The people are indifferent toward the services offered by government health personnel.

3. The district health staff and the village health staff need help with their health education work.
4. There are resources in Bananaville which could be used to do something about the MCH problems.

### EDUCATIONAL PROBLEMS AND NEEDS

The health educator reviewed the information he had obtained about Bananaville with the district health staff and the village health staff. Later the provincial health officer and the MCH specialist were invited to meet with the staff, to help them determine the most pressing MCH problems in Bananaville, and to help them decide how to work toward a solution of them. The five priority problems and needs determined by the group were:

1. High infant mortality rate.
2. Absence of registration of births and maternal deaths.
3. High number of cases of whooping cough among preschool children.
4. Improper infant feeding and inadequate diet.
5. Preference given by the villagers to the services of local midwives and medicine men over those offered by health personnel.

Several other health problems were discussed, but the staff felt that it would be better to try to solve some of the priority problems which could be tackled in short-term programs. This would give a feeling of accomplishment to those who would

help solve the problems and inspire them to attack the problems which would require long-term programs.

Nutrition was recognized by the health staff as one of the most important problems in the village. They hoped to be able to find opportunities for interesting the villagers in this problem. They decided that improving the diet of the villagers was one of their goals but that it could not be achieved until certain economic problems of the village were solved.

The educational needs related to the problems were identified as: getting people to understand and use the services offered by health personnel; getting people to improve their habits and practices in environmental sanitation and personal hygiene; getting better response to DPT immunization; involving the most popular midwife and other influential people in the community in carrying out the educational treatment plan; preparing the health staff to assume their functions more effectively; and motivating people in the community to take part in the solution of their problems using their own resources.

### ESTABLISHING THE PLAN FOR EDUCATIONAL TREATMENT

With the problems and educational needs in mind, the staff and the community drafted the educational treatment plan. A planning committee was set up, including the village health worker, the popular local midwife, one medicine man, the school principal, the religious leader, chairman of

the PTA, and the sanitation aide. The village headman was elected chairman of the planning committee.

*Goals.* The planning committee agreed on the following short-range objectives and goals.

1. To immunize the greatest possible number of infants and preschool children with DPT.
2. To help reduce diarrhea by getting people to boil drinking water.
3. To plan a more flexible operation of the clinic to meet the needs of working mothers.
4. To gain confidence, support, and cooperation of the local midwives.

*Committees.* To achieve the goals established by the planning committee, three program committees were appointed: (1) *DPT immunization committee*, composed of the PTA chairman, school principal, village councilman, local midwife, and nurse; (2) *boiling drinking water committee*, composed of religious leaders, teachers, village councilman, one medicine man, 4-H Club member, and sanitation aide; (3) *clinic scheduling committee*, composed of the popular midwife, a village councilman, the other medicine man, a teacher, and the village health workers.

## PLAN OF ACTION

Each of the committees met with staff advisors and worked out a plan of action for their part in the MCH program.

*DPT immunization committee.* The purpose of this committee was to reduce whoop-

ing cough among preschool children by getting as many as possible of the target group immunized with DPT. The first step in their plan was to find out how many infants and preschool children were in the target group, and to decide the time and place where the children would be given the shots. Next, they decided on what kinds of help would be needed and how many volunteer workers would be required. Then they agreed what they would do to recruit the volunteers and arrange for their training. The committee decided to hold a meeting inviting all the mothers of the children in the target group to attend. At the meeting, to be organized by the PTA, the MCH staff would explain to the mothers why DPT vaccination was important for the health of their children. The committee decided they would need some educational materials to support their work and that they would have to call this need to the attention of the planning committee. They felt that one means they could use to get information to the villagers would be through the radio and newspaper and that this also should be discussed with the planning committee. A final step in the committee's action plan was to set up a system for keeping a record of the immunizations given.

*Boiling drinking water committee.* The purpose of this committee was to encourage all householders to boil their drinking water in order to reduce the number of cases of diarrhea and gastro-intestinal diseases. The first step in their action plan was to find the most simple and inexpensive method of boiling and storing drinking water. After



this was accomplished, they would give demonstrations on how to do it at a community meeting. The committee talked about the kinds of educational materials they would need to help them teach their neighbors why water should be boiled and why it needed to be stored in a safe manner. They also considered how these concepts might be communicated to the villagers. Their final step was to set up a plan to evaluate the success of their part of the MCH program.

*Clinic scheduling committee.* The purpose of this committee was to arrange a clinic schedule which would make it possible for the greater numbers of the villagers to avail themselves of the health services offered. The committee decided to make a survey in Bananaville to find out from the

people when (the days and hours) it would be most convenient for them to go to the clinic. As the next job, they decided to organize study groups for prenatal and postnatal mothers; it was thought that the study group classes might be conducted by the nurse.

#### COORDINATION OF COMMITTEE PLANS

After the three program committees had met and developed plans for their particular activity, these plans were presented to the overall planning committee. The provincial health officer, the MCH specialist, the district health office staff, the village health staff, the village committee members, and



the health educator met with the committee to go over the plans and to suggest alternative methods or items that had been overlooked. One suggestion they made was that health training be offered for committee members and other interested villagers so that they would be better prepared to assume their health education tasks. It was also suggested that the committees think about ways of giving recognition to individuals and groups working in the MCH program. Periodic evaluation of activities in terms of program goals was another suggestion.

## RESULTS

As a result of the 6 weeks of special programming in Bananaville, considerable interest was aroused among the citizens in MCH

problems. The health educator had worked closely with the staff members throughout the process and had made use of many opportunities to help them learn how to assume their health education responsibilities more effectively. Some related gains were achieved: the popular midwife and the medicine men were drawn into the program and their cooperation was secured; the village headman began to work with his people in a more democratic manner; and some leadership skills among the citizens were discovered or developed.

In view of these developments, the health educator and the health staff felt that they had built a base which would enable them to work with this community in establishing long-range programs to solve some of the more complicated MCH health problems.

STUDY AREA IV: *Selecting educational tools and identifying behavioral symptoms.*

INTRODUCTION

In Study Area III, the principles and theories that were covered in Study Areas I and II of the maternal and child health program were applied to an imaginary situation.

The problem dealt with in this section is also built around an imaginary situation. Again, it will help you to understand if you turn back to the discussion guide for Study Area IV in the Introduction of this book, and read it again.

The discussion guide tells you that the discussion groups were asked (1) to select and describe some of the educational materials that they believed would help the health workers and the community leaders in Bananaville teach others in the village about the maternal and child health program; and (2) to consider the attitudes or kinds of behavior practiced by the villagers that would show that they did or did not believe that the program had merit.

WHY EDUCATIONAL TOOLS ARE NECESSARY

Perhaps the most serious problem in maternal and child health programs is that of getting the continued cooperation of the people. To get this necessary cooperation,

certain information must be communicated to the people.

As mentioned earlier in Study Area IV of an environmental sanitation program ideas, facts, and knowledge can be communicated by either "audio" or "visual" methods. By "audio" we mean simply "the spoken word." The term "visual" refers to anything that is seen, such as written words, pictures, and illustrations.

Either method—audio or visual—will get the message across. But the best way to communicate to the people is to use a combination of both methods, audio and visual, to *tell* them and to *show* them. To carry out the "show" part of communication, you need "educational tools."

AN EDUCATIONAL TOOL FOR STAFF TRAINING

In carrying out the MCH program in Bananaville (Study Area III), one of the suggestions made by the staff was to provide some type of organized training for MCH activities. The training was to be given to the health staff, especially the nurse and midwife so that they could more effectively assume health education responsibilities in the MCH program.

In this training, different methods were used, such as group discussions and lectures, but for more effective training sessions, edu-

cational aids were needed. It was decided that for this particular purpose the flip chart would be of great help.

The flip chart is an educational tool composed of a series of drawings or illustrations with captions. It is fastened on one side so that the pages can be flipped. It is an excellent support to the speaker in conveying a main idea or message to a small group.

*Reasons for selecting the tool.* It was decided to use the flip chart because it would be inexpensive, materials were available locally, it would be easily transportable and easy to make, and it could be used for messages about a variety of subjects.

*Purpose.* The purpose of this tool was to help the health educator and MCH workers convey effectively the correct ideas and concepts about human relations and MCH to those participating in the training program.

*Obtaining the tool.* The health educator and health workers made the flip chart by using local materials. A local artist prepared some of the illustrations.

*Content.* The flip chart had two sections. The first contained information about human relations and the functions of individuals in groups or committees.

The second part contained ideas about opportunities for health education.

The material included in both parts of the flip chart are shown in detail in tables 1 and 2.

In addition to the message outlined in the table for part 2 of the flip chart, emphasis was placed on "how people learn." It was stressed that health workers need to listen to what the mothers have to say, watch how

they react to the advice given, and try to find ways of getting the mothers to respond favorably to this advice.

*Pretesting the tool.* To determine whether it was suitable, the flip chart was pretested with technical people, including the MCH specialist, the provincial health officer, the district health officer, nurse supervisor, and nurses and midwives to get their reactions on the clearness of the message shown by the drawings and captions.

#### AN EDUCATIONAL TOOL FOR USE BY OTHER PERSONS

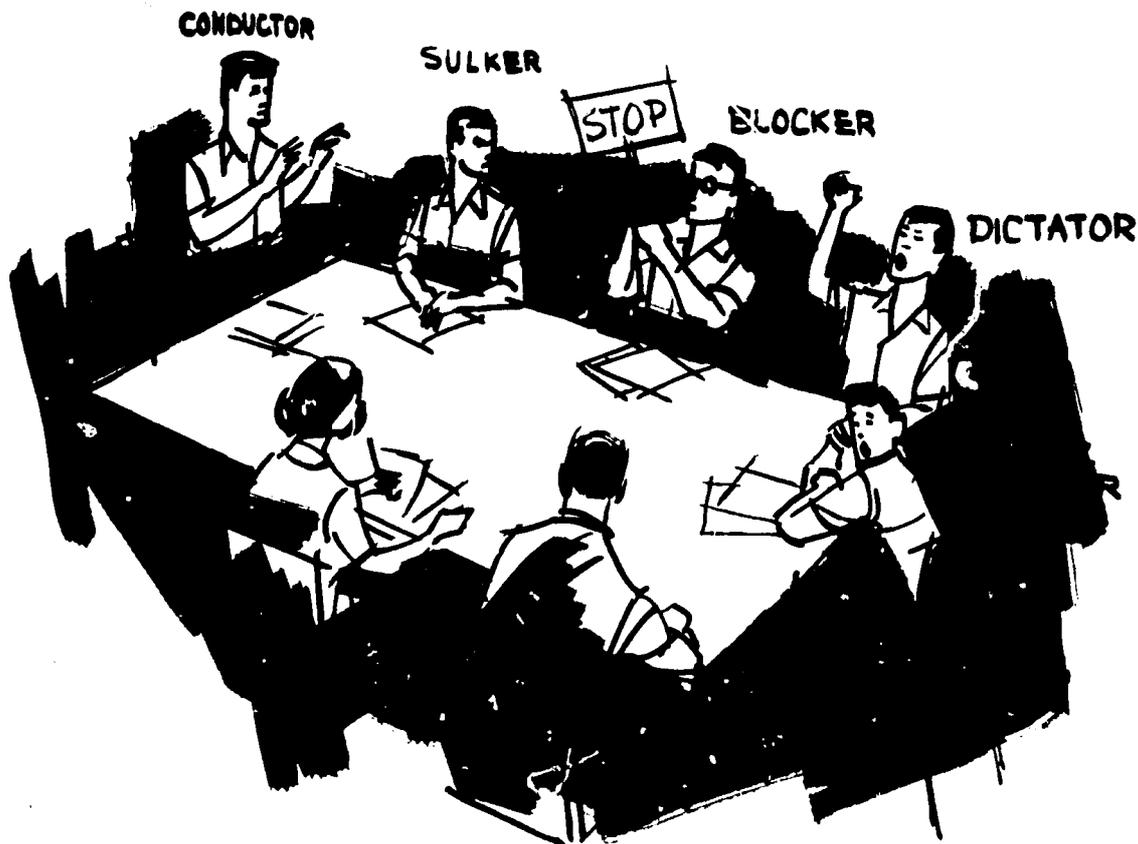
One of the short-range goals in MCH at Bananaville was the DPT immunization campaign. The bulletin board was the educational tool selected by the committee working on this part of the program.

*Reasons for selecting the tool.* It was selected because: it would be easy and inexpensive to make, using locally available materials; it would be adaptable to message changes; the community would be more involved in making and maintaining it than they would if some other tools were used; ready-made educational materials (e.g., leaflets and pamphlets) could be placed on it; it could be located at community gathering places; and it could be used for other health campaigns in the future.

*Purpose.* The purpose of the bulletin board was to display educational materials and notices related to the DPT immunization campaign, and to remind parents to get their children immunized for whooping cough and other childhood diseases. The

TABLE I.—*Content of Part 1 of the Flip Chart*

| Illustration  | Caption   | Message  |
|---|---|--|
| <p>1. A group of people sitting around a table to portray a committee meeting.</p>  | <p>Working in groups.</p>   | <p>a. Values of working in groups.<br/>                     b. Role of group leader.<br/>                     c. Role of group members.<br/>                     d. Role of nurse and midwife as advisor or resource person.<br/>                     e. Group interactions and exchange of ideas.<br/>                     f. Group making decisions.</p>                           |
| <p>2. A series of drawings portraying different kinds of participants:<br/>                     A man who looks like a dictator,<br/>                     A sleepy group member,<br/>                     A man with face turned away from the group,<br/>                     A man holding a stop sign,<br/>                     A man conducting an orchestra.</p> | <p>Dictator . . . . .<br/>                     Sulker . . . . .<br/>                     Laissez faire . . . . .<br/>                     Blocker . . . . .<br/>                     Harmonizer . . . . .</p> | <p>g. One who monopolizes the discussion.<br/>                     h. One who doesn't participate in the discussion.<br/>                     i. One who is indifferent to what is going on.<br/>                     j. One who always reacts negatively to suggestions and blocks the action of the group.<br/>                     k. One who maintains harmony in the group.</p> |
| <p>3. A series of drawings to portray various aspects of human relationships involved in the nurse working with other staff members and mothers:<br/>                     Drawing showing the nurse introducing herself to the mother;<br/>                     Drawing of village health worker talking to nurse at her desk.</p>                                    | <p>Introduction . . . . .<br/>                     Cooperation . . . . .</p>  | <p>l. Importance of first contact to establish good relationships.<br/>                     m. Importance of good relationships with other staff members.</p>  |



messages used were directed toward the entire community but especially toward parents.

*Content.* A series of educational materials related to DPT immunization were posted on the bulletin board. Some of the series were prepared by adapting and using prepared materials; others were originally designed for use in Bananaville. The content of these materials was as follows:

1. What is whooping cough and its symptoms?
2. What is tetanus and its symptoms?
3. What is diphtheria and its symptoms?
4. How are these diseases spread and how may they be prevented?
5. What is DPT immunization?

6. How, where, and when do you get DPT immunization?

The materials developed by the committee were reviewed by the village health staff, the health educator, the physician, and the district health officer to assure that the information was accurate and appropriate.

*Using the tool.* The DPT immunization committee selected the most desirable locations in the community where bulletin boards could be placed—the market, church, clinic, and the site where bananas are loaded. They finally made four bulletin boards, but if they had not been able to do so, they planned to move one bulletin board from place to place.

The committee was responsible for keep-

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ing the information up to date and for changing the messages in accordance with a schedule they had agreed upon.

*Training people to use the tool.* The health educator and the health staff helped the committee prepare the materials they planned to use. The health educator discussed techniques of layout, design, colors, and frequency of changing content. This, of course, was a part of the training of health staff and committee members.

*Evaluating effectiveness of the tool.* Efforts were made to evaluate the effectiveness of the tool through interviews with parents carried out by committee members and health workers. The interviews were made by health staff members as they contacted the villagers during the course of their regular work. The committee members, however, scheduled a series of visits to the homes of a sample group of parents to learn whether they had seen the messages on the

TABLE 2.—*Content of Part 2 of the Flip Chart.*

| Illustration   | Caption                  | Message  |
|--|--------------------------|--|
| 1. A clinic setup with a nurse weighing a baby with the mother at the side.      | Well child . . . . .     | a. The nurse gives advice to the mother on the importance of: regularly weighing baby; growth and development; proper infant feeding.  |
| 2. A nurse visiting a typical family and pointing to an uncovered jar of water.  | Home visit . . . . .     | b. The nurse advises the mother on various sanitation and personal hygiene practices, and she points to the uncovered jar and the flies around it as an example of poor sanitation habits. |
| 3. A nurse in health center giving injection to a baby being held by the mother. | Immunization clinic.     | c. The nurse provides advice on the importance of DPT immunization in the reduction of whooping cough and other childhood diseases.  |
| 4. A group of prenatal mothers with the midwife at health center.                | Mothers' class . . . . . | d. The midwife helps mothers to prepare for home delivery and recommends regular prenatal consultation, urging them to return on a certain date.   |



bulletin board, to find out whether the parents understood the messages, and whether they planned to take their children to the clinic for DPT immunizations.

### IDENTIFYING BEHAVIORAL SYMPTOMS

In order to have a successful MCH program in Bananaville, the health staff realized it would be important to recognize, report, and take prompt action if by word or deed the villagers showed evidence of being

opposed to or of losing interest in the program.

As the MCH program got underway it was found that, after an initial increase, the attendance in clinics had dropped back to what it had previously been; parents were not making any greater effort to register the births of their children; untrained midwives continued to attend a greater number of deliveries than the trained midwives; and the enrollment in health classes for mothers was dropping.

The health educator needed more specific information about these symptoms of program failure, so he studied staff reports and records, attended meetings and conferences, and conducted interviews to learn as much as he could. He then analyzed the information he had obtained. Next, at a meeting of the local planning committee, the findings of the health educator were discussed. It was decided that health education efforts would need to be intensified and that only minor program adjustments were justified.

One of these was to shift the schedule for well-baby and prenatal clinics to other days of the week. Many working mothers could not attend unless this was done because the clinics were being held on the day that they were busy in the fields preparing for market day.

*The decisions and opinions of the conference participants have been presented in this report on the health education component of material and child health programs. As with all programs, MCH programs have certain problems. This report answers some of them for you. Study it carefully.*

# Appendix A

## Glossary

## GLOSSARY

**ACTION PLAN**—the step-by-step procedures set up to perform the deeds or actions necessary to accomplish the desired results of a program.

**BCG**—tuberculosis immunizing agent.

**BEHAVIORAL SYMPTOMS**—words or actions which indicate that the people are or are not accepting a health program.

**CASE STUDY**—a thorough analysis of a situation which may serve as a guide to diagnosing needs and planning action.

**COMMUNICATION PATTERNS**—the methods by which news travels.

**CONTENT**—when used in the expression “content of the educational tool,” it refers to the topics, ideas, facts, or statements contained in the tool; when used as the “content of the training program,” it refers to the subject matter of the program.

**DEMONSTRATION**—a learning situation in which the necessary action is actually shown to the learners.

**DPT**—diphtheria, pertussis, tetanus; pertussis is commonly known as whooping cough.

**EDUCATIONAL TOOL**—any material (such as a bulletin board, leaflet, or flannel board) designed to aid learning and teaching through sight and sound; used interchangeably with “educational aids,” “educational materials,” and “audio-visual aids.”

**FIELD VISIT**—a visit made by health workers or administrators for purposes of firsthand observation.

**HEALTH EDUCATION COMPONENT**—that part of a program which is concerned primarily with the health behavior of people; it includes the educational processes, methods, techniques, and tools required to achieve program goals.

**IN-SERVICE TRAINING**—training which takes place while the learner is working at his job; may also be referred to as “on-the-job training.”

**KEY PEOPLE**—those persons in a community who have the greatest influence on community practice, opinion, and policy.

**LITERACY PROGRAM**—a program whose purpose is to teach people to read and write.

## GLOSSARY

**MCH**—maternal and child health.

**OPINION MAKERS**—see **KEY PEOPLE** above.

**PILOT AREA**—a community or confined location where program methods or techniques are pretested to determine if they are suited for widespread utilization.

**POPULATION MOVEMENTS**—groups of people moving from one part of a country to another.

**PRACTICE SESSION**—a learning situation in which what is being taught is performed by those who are learning.

**PRETEST**—the advance testing of any material or method in order to determine whether it serves its purpose or will be accepted.

**PTA**—parent-teacher association.

**QUESTIONNAIRE**—a set of questions used to obtain information.

**REFRESHER COURSE**—a course which provides review or additional information, designed to keep one up to date with new information and developments in the field.

**ROLE PLAYING**—acting the part of other people, in order to demonstrate more completely how these people might behave in certain situations.

**TARGET GROUP**—those persons for whose benefit health programs have been designed; may also include those persons other than staff who can help change the practices and attitudes of the people who will benefit from the program.

**WORKSHOP**—a conference which emphasizes free discussion, exchange of ideas, demonstration of methods, and practical application of skills and principles.

# Appendix B

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