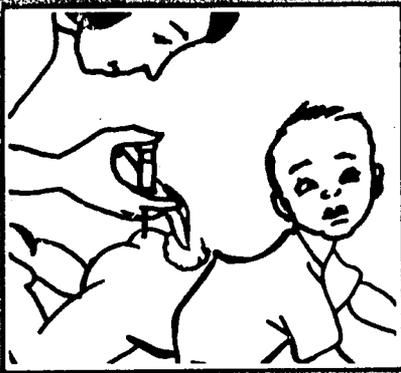


Toser frente a las demás personas



ORT PLUS: Combining Themes in Public Health Communication

FINAL REPORT
HONDURAS' PRIMARY HEALTH CARE COMMUNICATION
1989-94

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**ORT PLUS:
COMBINING THEMES IN
PUBLIC HEALTH COMMUNICATION**

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Field Project Director

Tegucigalpa, Honduras
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On September 30, 1978, the Academy for Educational Development was contracted by the Office of Health and the Office of Education of the Bureau for Science and Technology (S&T/H and S&T/ED) of the United States Agency for International Development (AID) to implement a five-year project for the prevention and treatment of acute infant diarrhea in the rural areas of two developing countries. A project agreement was signed in September 1979 with the Government of Honduras, and in 1981 the contract was amended to expand emphasis given to water and sanitation messages and provide technical assistance to a separate program in three northeastern provinces of Honduras. This became known as the Water and Sanitation (W&S) component of the Mass Media and Health Practices (MMHP) Project. MMHP was the predecessor of the current Communication for Child Survival (HEALTHCOM) Project.

EXECUTIVE SUMMARY

The work described in this monograph was carried out as part of the Mass Media and Health Practices (MMHP) Project funded by the United States Agency for International Development, Bureau for Science and Technology, Office of Education and Office of Health, and the USAID Mission in Honduras. The Academy for Educational Development was responsible for providing the technical assistance described herein. The goals of the project were threefold:

- To implement a systematic public health communication program to change health behavior
- To lower the rate of infant mortality
- To develop an institutional capacity within the Ministry of Health to apply public health communication to other priority programs

In 1983, after observing the significant impact of the two-year diarrheal disease control program, the Ministry of Health decided to further strengthen its institutional capacity and apply public health communication to four priority programs: Malaria, tuberculosis, and immunizations were added to the existing strategy for diarrheal disease control.

Malaria Control

The malaria program focused on increased village support for malaria spraying teams and the correct procedure for treatment. Radio programs taught families when to expect the spraying teams, thereby creating better coordination between service delivery and the community. Spraying teams were taught how to use a simple flyer to teach families how to maximize the spray. The flyer was then left with the families as a timely reminder of the principal malaria control messages. Radio spots provided instruction regarding when and how to take the malaria treatment when early research findings showed that rural people did not know when to seek treatment. Findings also guided planners to teach simple practices, such as eating before taking the medication to diminish the side effects, a common constraint to consumer compliance.

Diarrheal Disease Control

During two years of focused communications work in one health region, the control of diarrheal disease (CDD) messages and materials were field tested extensively. In 1983, the Ministry of Health expanded the diarrheal disease control program nationwide. The program was designed to maintain and expand the considerable gains in consumer awareness and correct ORS use throughout the country. It primarily used the materials and messages developed and tested during the first stage of the effort.

Tuberculosis Control

The tuberculosis campaign focused on case identification and completion of treatment. Early research demonstrated that tuberculosis was considered incurable and tubercular patients unclean. Many people rejected treatment completely, some left their homes to live in communities where they were unknown. Many who started the year-long treatment stopped as soon as the symptoms disappeared.

Radio spots motivated rural people to come to clinics for treatment and taught that tuberculosis is not contagious when the patient is undergoing treatment. Trained personnel, a flipchart, and simple graphics were integrated to train families and community members to create an 'environment of support' for the patient to complete the prescribed treatment. A brightly colored sputum sample cup, which graphically depicts the steps necessary for obtaining a useful sample, was developed when research findings indicated that most clinic staff reported that the lack of a proper sputum sample was a major constraint of the program.

Immunizations

The immunization campaign taught the need to complete the three doses of DPT and polio vaccine. When research revealed that most mothers were unable to read the complicated MOH card and did not know when their children had completed the immunization schedule, a new immunization card with drawings depicting the number and method of each vaccine was designed. Radio messages created a demand for services and taught mothers how to treat reactions to immunizations, one of the principal constraints to completing the three doses.

This monograph discusses the lessons learned from this application of public health communication to the four health programs. It demonstrates one country's experience with the problem that is facing many public health programs, that is, how to manage and implement public health communication when it moves beyond a single program, how to add other health priorities onto an existing strategy for child survival communications.

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9

MIENTRAS EN LA CASA...



Tomá Estela que si
no te vas a poner
peor!...

INTRODUCTION

OBJECTIVES

The Government of Honduras, with funding from the Agency for International Development, Bureau for Science and Technology, and USAID Mission in Honduras, began implementing the Mass Media and Health Practices Project in 1980. The project was committed to:

1. Developing a communications methodology which would apply the latest methods for social marketing and behavior analysis to changing health behavior
2. Contributing significantly to the prevention and treatment of acute infant diarrhea in isolated rural areas
3. Institutionalizing the methodology within the Ministry of Health's Division of Education

The Public Health Communication Model was based on systematic, continuing research with the target audience, a comprehensive plan, and the integrated use of mass media, print materials, and face-to-face instruction to deliver messages to the intended audience. The Academy for Educational Development assumed responsibility for providing technical assistance. Stanford University, and later Applied Communication Technology (ACT), evaluated the impact of the program.

The project in Honduras was initially called Proyecto de Comunicaciones Masivas Aplicados a la Salud Infantil (PROCOMSI I) and was implemented in one region of the country. After two years of broadcasting, the demonstrated impact of the project was significant. The Stanford University/ACT evaluation of more than 600 families revealed that 95 percent of the rural women could name LITROSOL (the local oral rehydration salts packet) as the medicine promoted, 60 percent reported having used LITROSOL to treat diarrhea at least once. More than one-third reported using LITROSOL during the most recent episode of diarrhea. Of those who said they used LITROSOL, more than 90 percent knew how to mix it correctly. The number of deaths associated with diarrheal dehydration dropped by 40.0 percent, from 39.8 percent during the two years prior to the program to 24.4 percent during the two years after the program was initiated.

These initial results motivated the MOH to renew its commitment to the role of communications within the Ministry. Working closely with the USAID Mission in Honduras, the Ministry increased the number of staff of the Division of Education and requested that the Division expand its scope of work to apply the methodology to four priority programs—malaria control, tuberculosis control, and immunizations and to expand its CDD program. This second phase, which began in January 1983, was called PROCOMSI II. Its goals were to:

1. Apply the Public Health Communication Model to other MOH priority programs.
2. Complete institutionalization of the methodology within the Division of Education through improved organizational management and processes and in-service training.

THE PUBLIC HEALTH COMMUNICATION MODEL

Public health communication attempts to change a particular set of behaviors in a specific, large-scale target audience within a predefined period of time. It is based on systematic, repeated research with the intended audience, comprehensive planning, and the integrated use of mass media, print materials, and face-to-face instruction. The model has eight steps, as described below.

Step One: Developmental Investigation. Various social research instruments, such as surveys, direct observation, in-depth interviews, and focus groups, are applied to determine the knowledge, attitudes, and practices of the target audience and service providers regarding the selected health topic.

Step Two: Definition of Behaviors and Educational Content. The set of behaviors that planners want the target audience to practice as a result of the public health communication is defined by comparing what the audience currently does with the list of ideal behaviors determined by the technical experts. The resulting list of behaviors builds on what people are already doing. Planners then identify constraints to completing other behaviors; solutions for these constraints are addressed in the communication strategy. Educational content is then defined based on the list of behaviors.

Step Three: Development of the Implementation Schedule. The implementation schedule is the operational blueprint of the communication activities. It defines the target audience, the communication objectives, the media mix (the role and content of mass media, print, and training), the delivery system for products and materials, and the timeline and management plan for each activity.

Step Four: Design of Educational Materials. Draft print and mass media materials and training courses are designed based on the implementation schedule and communication objectives. Several formats may be developed for testing.

Step Five: Materials Testing. Draft materials and training are tested with the target audience to ensure that they are understandable, effective, and attractive.

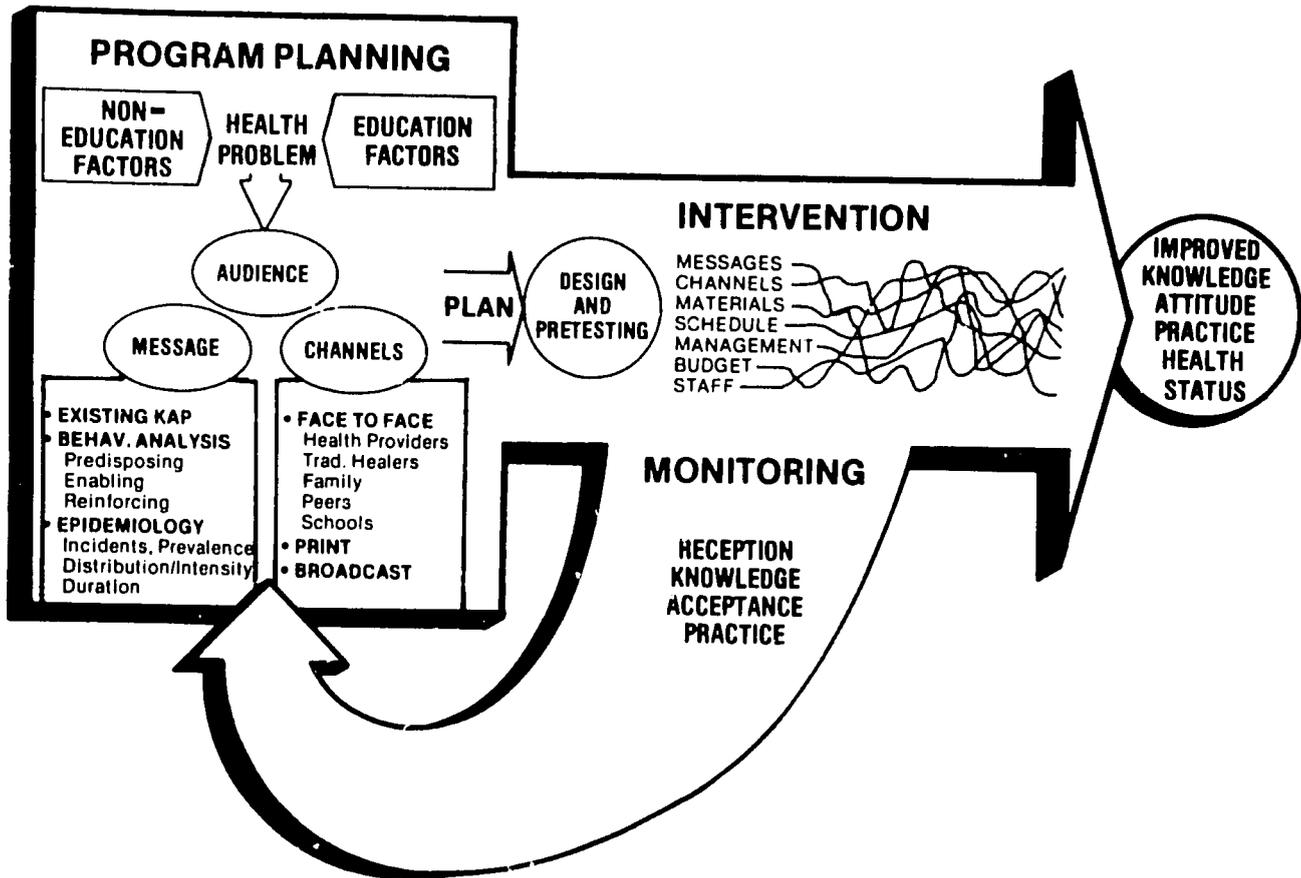
Step Six: Redesign and Final Production. Modifications are made in the materials and training based on the test results. Frequently, commercial firms produce the final print and mass media materials. Bids are obtained from several production firms; selection is based on the quality of the work as well as on the cost.

Step Seven: Implementation. This step includes the implementation of training, the distribution of print materials, broadcasting of mass media spots and programs, and other activities described in the implementation schedule. The key to this step is that all

of the products, materials, and trained personnel are in place and interacting with the target audience in a mutually supportive manner.

Step Eight: Supervision and Monitoring. These two activities enable planners to detect problems, to implement timely corrective measures, and to verify compliance with the proposed tasks. Discrete monitoring research, using the same social research techniques applied in the developmental investigation, determines the changes in target audience knowledge, attitudes, practices and enables planners to reprogram and adjust messages and materials.

THE PUBLIC HEALTH COMMUNICATION MODEL



ORGANIZATION OF THE DIVISION OF EDUCATION

At the outset of PROCOSMI I, the Division of Education was comprised of the head of the Division, a health educator, and a secretary. To conduct the expanded activities required by the methodology, the project contracted three additional staff – a nurse/trainer, a radio programmer, and a graphic artist. The MOH agreed to incorporate these personnel as permanent Ministry staff and began the process of making these new positions part of the civil service system.

At the outset of PROCOSMI II, the MOH recognized that the Division would require additional staff to meet the demands of the increased workload. Three new staff members were hired to assist in this work. Again, the Ministry began the process of incorporating these individuals as permanent staff. All of the new staff were to have extensive experience in community education. One was to be a specialist in training, one in educational radio, and one in the production of print materials for nonformal education.

The Division of Education was reorganized to incorporate these new staff. The head of the Division was responsible for coordinating the overall activities. Staff were then divided into three subgroups made up of two people each – educational radio, print materials, and training. One person in each group was responsible at the central level and one at the regional level. Two to three existing MOH staff were identified in each region to work with the Division of Education and to coordinate activities at the regional level.

Three in-service workshops were conducted to unify criteria and standardize knowledge and experience with the methodology among both new and old staff, as follows:

- Techniques for Social Research
- Techniques for Educational Materials Testing
- Techniques for Educational Broadcasting

The first two workshops coincided with the communication work on malaria, the first health program. During the workshop on Techniques for Social Research, staff designed and implemented the malaria developmental investigation. After the implementation schedule was written by the central-level staff, the workshop on Techniques for Educational Materials Testing was used to test the print and mass media materials developed.

The skills developed during these in-service workshops served as a basis for the work on other health topics. Workshops on Techniques for Educational Broadcasting were conducted in each region throughout the year. Local MOH staff were trained in radio production and made responsible for programming and monitoring radio broadcasts with local radio stations.

ORGANIZATION OF THE HEALTH PROGRAMS

Each of the MOH programs – malaria, diarrheal disease control, tuberculosis, and immunizations, had specific institutional organizational and management characteristics, as described in the paragraphs that follow.

The malaria program is the responsibility of the Division of Vector Control, which has a vertical management structure. The program has well-defined norms and goals, sufficient personnel, and strict discipline and management. It has sufficient personnel in the health regions and a well-developed supervisory system. The program focuses on two major activities: (1) malaria prevention through spraying of homes with insecticides and through community mobilization to eliminate mosquito-breeding areas, and (2) case detection and treatment. In both instances, the objective is to break the disease transmittal chain. Spraying is conducted by a large cadre of MOH sprayers. Case detection and treatment are performed by Voluntary Collaborators as well as by clinic staff. These village primary health care workers are trained to take blood samples and to provide treatment based on the results of these samples.

The diarrheal disease control program was initiated in 1983. The program head reports to the head of the Division of Epidemiology. At the regional level, the program is the responsibility of the regional epidemiologist. Program activities are carried out by hospital staff and by auxiliary nurses in rural health clinics as a part of their normal treatment activities. The initial focus of the program was the prevention and treatment of dehydration through the widespread, correct use of a locally produced oral rehydration salts (ORS), LITROSOL. In 1983, the goal of the program was to expand nationally, based on the initial regional experience realized during PROCOSMI I.

The tuberculosis control program, a newly initiated effort, is also under the supervision of the Division of Epidemiology. At the regional level, it is the responsibility of the regional epidemiologist and implemented by auxiliary nurses. Program activities focus on detection of cases and outpatient treatment through rural health centers. At the outset of PROCOSMI II, staff of the tuberculosis control program reported a low level of case detection and high desertion rates of those patients receiving treatment.

The Expanded Program of Immunizations (EPI) also reports to the Division of Epidemiology. Immunizations for the six childhood diseases were carried out through spontaneous demand at hospitals and rural health centers and by detection of unvaccinated children who arrived at service centers seeking other services. In 1983, the MOH decided to complement this spontaneous demand with highly visible,

well-promoted Immunization Weeks to increase coverage. In addition to vaccinating in the clinic, auxiliary nurses take immunization services to other villages in their area and seek out children who should be inoculated. At the beginning of 1983, the Division reported low vaccination rates of first doses and decreasing rates for the second and third polio and

DPT vaccinations.

The communication campaign for each program was designed to support its organizational and management strengths and weaknesses and was developed in coordination with the technical director and other key staff of each program.



IMPLEMENTATION SCHEDULE

To follow the eight steps of the model for each health program, an annual plan was created. During PROCOMSI I, nine months were allowed for the first step of developmental investigation. The amount of time was decreased in other countries as experience with the techniques and methodology increased; as such, PROCOMSI II was charged with the responsibility for supporting four programs in one year, staff had three to four months for each program. Subsequently, staff proposed the following as the minimum amount of time necessary for carrying out each task.

Task	Duration
1. Developmental Investigation	Two weeks
2. Identification of Behaviors and Selection of Content	One week
3. Development of Implementation Schedule	One week
4. Design of Materials	One week
5. Materials Testing	Two weeks
6. Redesign and Production	Two weeks
7. Implementation	Two to three months
8. Monitoring	Two weeks

Staff then assigned the programs to four quarters of the year. They first identified several criteria, as follows:

- Season of greatest incidence of the health problem
- Institutional organization and capacity of each program (Some programs, such as tuberculosis, were relatively new or had less staff than the others. Working with them later in the year provided time to organize and prepare for the service demand that would be created by the communication activities.)
- Scheduling of the MOH Immunization Weeks
- Scheduling of other conflicting national activities, such as political campaigns, soccer matches, and holidays.

On the basis of the foregoing criteria, the Division of Education staff discussed programming with the technical directors. It was learned that the malaria program began spraying activities in March and April, which made it desirable to begin work with that program immediately. The incidence of diarrheal disease is highest during the second quarter, the rainy months of May through July. As such, peak communication messages would need to be highest during that time. The Ministry planned to carry out two national Immunization Weeks in 1983, one in April and the other in November. The Division would have time and resources to produce radio materials to create service demand for the first Immunization Week in April, but would develop an integrated public communication campaign for the second one in October. Tuberculosis had no special characteristics relating to a specific time of the year, but time was needed to better define the norms and to organize staff. Programming thus resulted as follows:

First Quarter	Malaria Control
Second Quarter	Diarrheal Disease Control (during highest incidence of diarrheal disease)
Third Quarter	Tuberculosis Control
Fourth Quarter	Immunizations (to support Immunization Weeks)

Because the duration of the broadcast was so brief, each communication activity was considered a segment, and the Division staff then began designing and implementing four segments.

THE FOUR HEALTH PROGRAMS

1. MALARIA CONTROL

As discussed earlier, the developmental investigation of malaria was conducted during the workshop on Techniques for Social Research. The 16 MOH staff attending the workshop participated in its implementation. During the research, 170 people were interviewed through surveys and focus groups. In addition, 47 people, including sprayers, voluntary collaborators, epidemiologists, and laboratory assistants, were involved in the program. Following is a discussion of some of the problems and actions taken to overcome constraints and support the strengths of the programs

Problem: The target audience did not understand how the insecticide worked. The audience did not comprehend that the insecticide killed the mosquito on contact. The common belief was that once there was no odor, the insecticide was no longer effective. This belief led to their washing, whitewashing, or papering the walls.

Action: Instructed the intended audience regarding how the insecticide works and why the walls should not be papered, whitewashed, or cleaned, even if there is no longer an odor. Indicated that the insecticide is effective for several months after the odor disappears.

Problem: Many rural people believed that 'paludismo' and malaria were different diseases. Paludismo was considered to be a benign stage of malaria curable through home remedies. This misunderstanding resulted in a delay in undergoing necessary treatment.

Action: Taught the target audience that 'paludismo' and malaria are synonymous and to seek treatment from the voluntary collaborator at the first sign of fever and chills.

Problem: Side effects of the treatment for malaria caused many people either to reject or not complete treatment.

Action: Indicated that eating before taking the treatment reduces the side effects and that resting, taking aspirin, and drinking liquids during treatment will also minimize secondary effects.

Problem: Most people did not seek the services of the voluntary collaborators because of the delay in obtaining results of the analyses of the blood samples.

Action: Improved the supply and turnaround for this service.

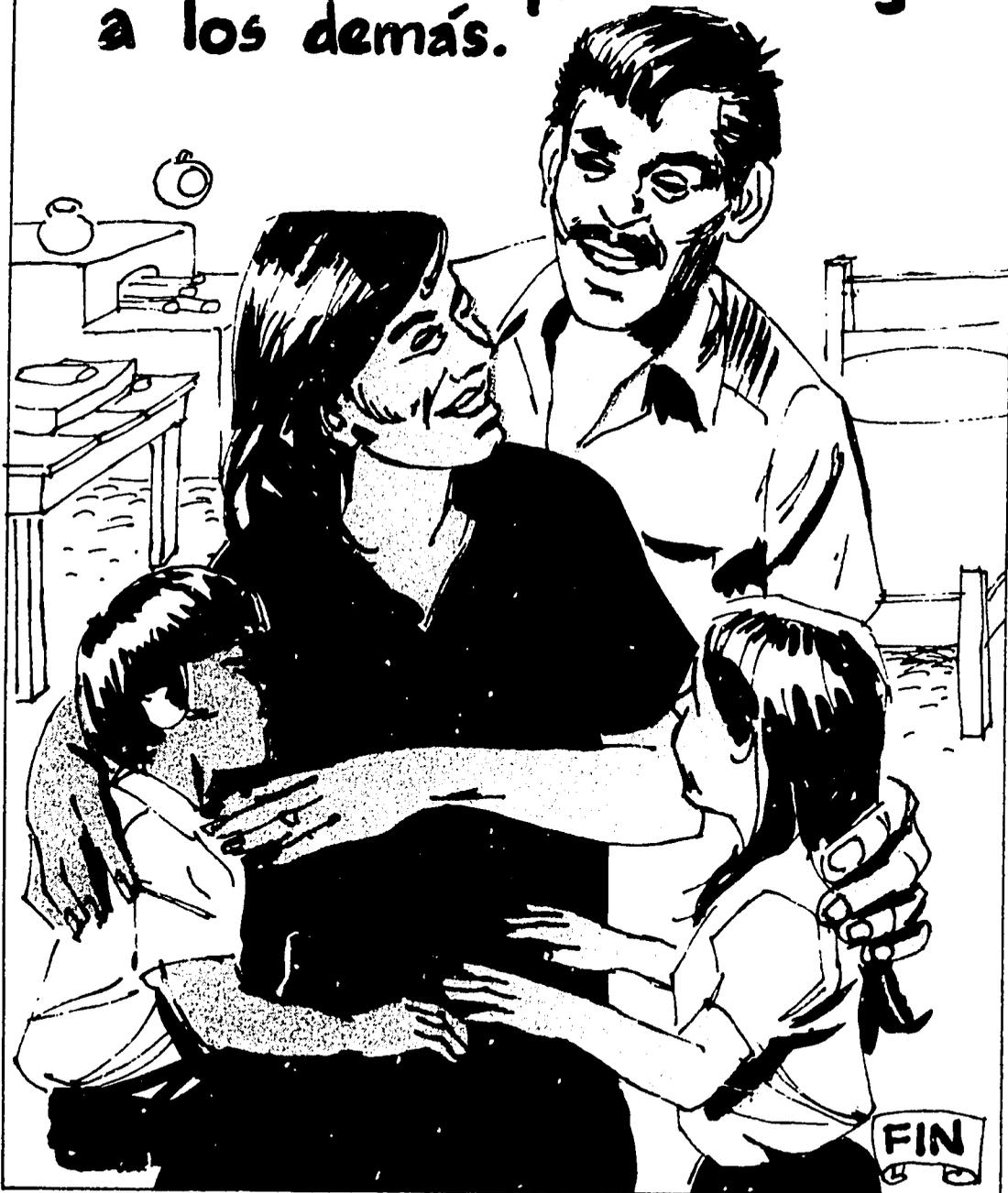
Problem: Many people had to wait hours for the sprayers. Once the sprayers arrived, they did not want to collaborate with them and did not follow up on their instruction.

Action: Informed communities regarding when the sprayers would arrive. Offered the sprayers instruction in acquiring improved interpersonal skills. Developed a simple graphic on the effects of the insecticide that sprayers could use in teaching the community and leave as a simple reminder in each home.

Problem: Voluntary collaborators needed incentives and support to continue their work. Some



**El enfermo que está en
tratamiento ya no contagia
a los demás.**



collaborators suggested that an identification card and a diploma would demonstrate to the community that they had received special training and would, therefore, give them more status.

Action: Prepared identification cards and diplomas to support the voluntary collaborators.

TARGET AUDIENCE

Primary Audience: Rural people -- adults and children in selected endemic malaria areas. The target audience for malaria was difficult to define because the program goal is to break the transmission chain, and the entire population is at risk for exposure. The developmental investigation demonstrated, however, that home spraying is primarily the responsibility of women because they are more likely to be home when this activity is carried out. Spraying messages were, therefore, targeted specifically for women.

Secondary Audience: Spraying brigade members and voluntary collaborators.

CAMPAIGN STRATEGY

Radio: Radio was used to teach that (1) 'Paludismo' and malaria are synonymous. At the onset of fever and chills, persons were instructed to go to the voluntary collaborator. (2) Malaria medication should be taken after meals to diminish the side effects. (3) The insecticide kills the mosquito on contact, and its effect lasts for months. (4) Do not either whitewash or paper the walls after they are sprayed.

A radio jingle performed by a traditional group tied the four spots together in one campaign. These radio spots were broadcast during the time of spraying from April to May. They were broadcast over two radio stations with national coverage and nine regional stations. The Division of Education radio program, 'The Voice of Health,' also focused on the primary malaria messages.

Graphics: Three basic graphics were developed that could serve as simple reminders of principal program messages in the home. One flyer was developed for use by the sprayers in educating the community on the effects of the insecticide and how to maintain it. The sprayers used the flyer to teach these basic messages while residents waited the required two hours before reentering their homes. A second flyer was developed for use and distribution by the voluntary collaborator. It contained information on how malaria is transmitted, prevented, and treated. A pamphlet also was designed for school children to teach them the causes and treatment of malaria and to motivate them in simple preventive measures. A total of

160,000 copies of the spraying flyer were distributed by the brigade members. Approximately 100,000 copies of the treatment flyer were distributed by the voluntary collaborator. Eighty thousand pamphlets were distributed to school children. In addition, 6,000 identification cards and diplomas were printed and distributed to the voluntary collaborators.

Training: Training was conducted by the malaria program during the monthly meetings. Regional supervisors informed the brigade chiefs of the research findings and the resulting communication plan. Instruction in content and use of the flyer also was offered. Brigade chiefs, in turn, trained the sprayers in their group and supervised their compliance with the activities.

RESULTS

The Stanford/ACT summative evaluation demonstrated that knowledge levels of principal messages were high following the campaign. Most significant was the increased understanding of how the insecticide works and the resulting change in papering and whitewashing walls. A total of 88 percent of the families knew that the insecticide kills the mosquito on contact. Sprayers reported a large decrease of washing and papering walls following treatment. They also reported increased cooperation with their activities and a decrease in the number of people who refused to allow their homes to be sprayed. Voluntary collaborators reported a significant increase in demand for their services, which made it necessary for the Vector Control Division to streamline systems for taking samples and delivering results. Other salient results reported by the Stanford/ACT evaluation are as follows:

- Approximately 60 percent understood that it was necessary to eat prior to receiving the malaria treatment in order to minimize side effects.
- Sixty-four percent knew that 'paludismo' and malaria are the same disease.
- Seventy-four percent stated that they should seek treatment from the voluntary collaborator when they experienced fever and chills.
- Approximately 90 percent stated that they should follow the instructions contained in the flyer that was distributed by the spraying brigade.

On the basis of these results, the head of the Vector Control Division decided to reprint the materials and extend educational activities nationally. He organized his own education department and had Division personnel train the new staff.

2. DIARRHEAL DISEASE CONTROL

DEVELOPMENTAL INVESTIGATION

The developmental investigation of diarrheal disease control began simultaneously with the implementation of the malaria campaign. This research activity was actually a monitoring of the previous communication activities through individual interviews with 317 women and six focus groups. Knowledge of the ORS product and how to prepare it was generally high, but some of the program messages needed fine-tuning, as indicated below:

Problem: Women were generally unaware of the signs of dehydration that indicated the child needed treatment at either a clinic or a hospital. The most recognized sign was the sunken fontanel because it is perceived to be related to other diseases.

Action: Offered instruction regarding the specific signs of dehydration which indicate that mothers should seek treatment for their children.

Problem: Women were unaware of the alternative methods of measuring a liter if liter bottles were unavailable.

Action: Taught them that three small soft drink bottles equal a liter.

Problem: Health workers reported that some confusion existed regarding the name of a commercial product for treating parasites, Nitrosol, and the ORS product, LITROSOL.

Action: Emphasized that the correct name is LITROSOL because it is mixed in a litro (liter) of water.

TARGET AUDIENCE

Primary Audience: Women with children under five years of age, particularly in rural areas, and rural primary health care workers.

Secondary Audience: Hospital and clinic staff.

CAMPAIGN STRATEGY

PROCOMSI I had worked extensively in one MOH region. With the formation of the diarrheal disease control program, the Ministry wanted to extend coverage nationally. The Division of Education and CDD program staff reviewed the developmental investigation and the materials that were produced and field tested during PROCOMSI I and decided to use the basic strategy developed during PROCOMSI I, but to apply it nationally. This strategy focused on teaching the audience how to prepare the prepackaged LITROSOL properly, as soon as their child gets diarrhea, and to continue feeding and breastfeeding during diarrheal episodes.

Mothers were to seek assistance from a clinic if the child did not improve with this regimen. ORS packets also were distributed in an educational flyer through primary health care workers called 'guardians' and through trained midwives. Distributors were given a flag with the program logo -- a heart surrounding the ORS packet -- to identify their respective homes. Radio spots taught mothers where to seek packets and provided instruction regarding basic mixing, administration, and feeding messages. Because the training, print, and mass media materials had been field tested extensively during PROCOMSI I, the Ministry of Health decided to reproduce them for the national program. Some new materials were developed based on the results of the monitoring.

Print: The hoja paquete, the instructional flyer in which two LITROSOL packets were distributed, the flag for community distributors, the LITROSOL poster demonstrating loving parents giving ORS surrounded by the heart symbol, the photonovel 'You Saved Your Little Sister,' and the flipchart for health workers were reproduced for national distribution. The poster depicting the signs of dehydration was redesigned and printed in color. In addition, staff designed an urban version of the breastfeeding poster as well as a calendar featuring the 'ten golden rules of breastfeeding' developed during PROCOMSI I. A flyer on feeding during diarrhea was also produced.

Radio: Because radio materials had been broadcast on national radio for two years, many mothers outside the pilot region were aware of the product and how to use it. Division staff, therefore, decided not to use radio to introduce the product, but rather to respond to some of the questions raised during the developmental investigation. Three new spots were developed: (1) LITROSOL is a powder that is distributed free of charge through the health system. It is called LITROSOL because it is mixed in one liter of water. (2) Signs of dehydration were presented which indicate that the child needs immediate treatment at either a clinic or a hospital. (3) Three soft drink bottles of water make a liter. The Division used previously developed spots to teach that LITROSOL should be administered regardless of the type of diarrhea and during the entire diarrheal episode. Radio materials were broadcast from June through August on the two national and nine regional radio stations. The Voice of Health radio programs on diarrheal disease control also were broadcast over regional stations.

Training: The CDD program staff trained the secondary audiences by way of regular meetings and through training sessions. Program staff began training Ministry personnel in January so that packets and services would be in place when the demand was created during the season when the incidence of diarrhea was the highest. Most print materials were distributed during those training sessions. Materials that were developed later were sent to the health centers to be distributed by the auxiliary nurse and 'guardians.'

RESULTS

The Stanford/ACT evaluation revealed that exposure to the campaign messages and knowledge of their content were generally high. LITROSOL was reportedly used in approximately 33 percent of the diarrheal episodes occurring within two weeks of the interview. An awareness that LITROSOL should be used for any type of diarrhea increased to 66 percent. Knowledge of the signs of dehydration increased from 60 percent to 80 percent.

3. TUBERCULOSIS CONTROL

DEVELOPMENTAL INVESTIGATION

The developmental investigation was divided into two stages of two weeks each. During the first stage, Division staff interviewed more than 300 rural people, 20 'guardians,' 12 auxiliary nurses, and 3 regional program coordinators using such research instruments as focus groups, in-depth interviews, and surveys. The second stage of the research focused more on tubercular patients and their families and employed the techniques of focus groups and direct observation. The following summarizes some of the most salient results and how they were addressed in the communication strategy:

Problem: People with tuberculosis are rejected by their communities because people believe that the disease is quite contagious. They believe, for example, that even a conversation with the afflicted person can transmit the disease. They did not know that persons undergoing treatment were no longer contagious. They also believed that the disease could not be completely cured and that death was probable. In some instances, these mistaken beliefs cause persons with tuberculosis to leave their homes to live in communities where they are unknown.



Action: Informed the intended audience that tuberculosis is not contagious if the afflicted person is being treated. Attempted to create a community of support for people with tuberculosis.

Problem: Patients frequently did not complete treatment, often as a result of the length and difficulty of treatment. (The tubercular patient must visit the health center once a month for a year.) Once initial symptoms disappeared many patients terminated treatment.

Action: Taught the patient's family and friends the reasons for the extended treatment so that they would support him or her and encourage the patient to complete the treatment. Built on the previous concept regarding why the patient should continue treatment.

Problem: Many sputum samples were not taken properly and, therefore, had to be repeated.

Action: The Division first worked with technical experts to instruct them regarding the correct procedure for taking a sputum sample. Staff then developed a teaching aid to help auxiliary nurses teach the proper procedure for taking a sputum sample.

TARGET AUDIENCE

Primary Audience: Tubercular patients and their families.

Secondary Audience: Auxiliary nurses and communities where tubercular patients resided.

CAMPAIGN STRATEGY

The campaign strategy focused on teaching three main behavior clusters, as follows:

1. How to Treat Tuberculosis and Support the Patient: Basic information about the disease --its causes, how it is transmitted, and how it is cured. The intention was to motivate the family to support the patient through the complete treatment.
2. When to Seek Treatment: Tuberculosis is curable if treated during its early stages. Persons with a cough that persists more than 15 days should seek treatment to determine whether they have the disease.
3. How to take a proper sputum sample for analysis.



Déle LITROSOL y quítele las comiditas por seis horas.

Print: Graphic designers used visual symbols to portray sample instructions on the sputum sample cup. The auxiliary nurse uses the cup as a visual aid while teaching the patient, and the patient has a simple graphic reminder to review at home before actually giving the sample. Staff also created three posters to promote an environment of support: (1) While tuberculosis is being treated, it is not contagious, (2) if a cough lasts more than 15 days, go to the health center and request a sputum sample, and (3) with early treatment, tuberculosis can be cured. A flipchart was produced for use by the auxiliary nurse with families and communities of tubercular patients to teach them important messages regarding disease etiology, transfer, and treatment. Sputum cups, flipcharts, and posters also were distributed to hospitals and clinics for their use.

Radio: Radio was the medium used to instruct a person regarding when treatment should be sought -- after having a persistent cough for 15 days. It also helped create an environment of support by teaching that the tubercular patient undergoing treatment can no longer transmit the disease to others and that tuberculosis is curable if it is treated early. Radio jingles to upbeat music repeated 'the tubercular patient undergoing treatment is no longer contagious' and 'tuberculosis is curable if it is treated in time.' Radio spots were broadcast for two months (August through October) on the two national and nine local radio stations. The Voice of Health radio program also featured the same messages concerning tuberculosis.

Training: This activity was to be developed by staff of the tuberculosis program. It had not been formalized, however, when the program began. Division staff developed a manual outlining the content and effective methods for using a flipchart, which was distributed with the flipchart.

RESULTS

Results of this program were significant, possibly because the information was new to the population. Some of the most salient results include:

- Fifty-six percent of the families with tubercular patients were able to complete the slogans promoted by way of radio.
- A total of 71 percent of tubercular patients' families and approximately 88 percent of the patients knew that it was necessary to complete the entire treatment in order to be cured.
- More than 80 percent of the patients and their families understood that a tubercular patient is no longer contagious when undergoing treatment.
- More than 90 percent of families, both with and without tubercular relatives, understood that the disease is curable.

4. IMMUNIZATIONS

The developmental investigation of immunizations explored the constraints to completing the three doses of DPT and polio and solutions to those constraints. Research techniques included observation during Immunization Weeks and in-depth interviews with women as they left the vaccination center, complemented by surveys with mothers of children under five and auxiliary nurses. Following are examples of the constraints identified and the actions taken

Problem: The majority of women did not know the number of doses necessary to complete the vaccination regime

Action: Informed them that children require three DPT and polio vaccinations to complete the doses.

Problem: Almost none of the mothers understood the vaccination card. They could not tell the interviewers what vaccinations their children had received, even when they were looking at the card

Action: Designed a vaccination card that is useful to and understood by mothers. It was based on their knowledge of vaccinations.

Problem: Many women did not take their children to be vaccinated if they were ill with diarrhea, a cold, or a fever

Action: Taught women that they should bring the child to the clinic or hospital and let the nurse determine whether the child should either receive a vaccination or be treated for the illness.

Problem: Reactions, such as fever, swollen arms, and sleepless nights, caused many mothers not to return for the second DPT vaccination

Action: Taught women that such reactions are normal and that they are far milder than the disease itself. Offered instruction in simple practices, such as applying cold cloths to the swollen area and giving aspirin, which diminish the reactions.

Problem: People did not understand the concept of a vaccination to prevent diseases. Generally, women sought treatment for disease and did not understand that some diseases are preventable.

Action: Instructed them that some childhood diseases are preventable.



CAMPAIGN STRATEGY

The campaign strategy focused on the following four behavior clusters:

1. The number of doses for each vaccination was indicated
2. A protected child has received all three doses
3. Reactions are normal and can be easily treated
4. Take the child to the health center to be vaccinated, even if he or she is ill.

Radio: Radio spots taught the four basic messages of the campaign. They also promoted and created a demand for services during the Immunization Weeks. Spots were broadcast from October through December on the two national and nine local stations. Episodes of the Voice of Health focused on immunization during this time.

Graphics: Division staff redesigned the immunization card so that it could be understood and useful to the mother. They wanted the card to serve as a reminder to mothers of what vaccines their children had received and how many more the child needed for complete protection. The new vaccination card was viewed more as an educational tool for the mother than as a control for the nurse. As a result of the high rate of illiteracy, graphic designers wanted to incorporate visual codes which mothers understood. These would be complemented by, but would not depend solely on, simple written information.

During the developmental investigation, researchers reported that women recognized which vaccination the child had received by the way in which it had been administered. Women recognized that the vaccination against polio was administered orally in the form of drops, that the vaccine for measles is injected in the child's arm, and that DPT is injected in the hip. The graphic designers used these visual symbols for identifying the vaccination. To help mothers understand the number of doses necessary to complete the regime, circles were placed adjacent to the images that were to be filled in as the child received each dose. In this way, by counting the number of circles the mother would know how many vaccinations the child had received and how many were still required. The nurse would write the date next to the remaining circle of when the child should be brought back and would also inform the mother orally. The card was pretested not only for understanding of the visual symbols but also for the size of card most preferred by mothers. A total of 100,000 copies were produced and distributed for field testing.

Division staff also developed a flyer to teach women about each disease their children were being vaccinated for. These were distributed through the clinics and primary health care workers. Posters were also produced promoting the Immunization Weeks.

Training: Hospital and clinic staff had already been extensively trained in immunization and cold chain management as a part of the Expanded Program of Immunizations and the AID Health Sector I project. Division staff recommended that training be provided through the Division of Epidemiology specifically on the use of the revised vaccination card and other educational materials designed for the program.

RESULTS

The Stanford/ACT evaluation demonstrated fairly high changes in knowledge and practices. Knowledge of the diseases which could be prevented by immunizations increased considerably -- 92 percent mentioned polio, 89 percent cited measles, and 81 percent identified whooping cough as preventable diseases. Knowledge of the number of doses necessary to complete the regime increased somewhat, but not as much as desired. Only 54 percent stated that their children needed three polio vaccines. Less than 30 percent knew that their children needed three DPT vaccinations to be protected. Mothers also continued to be reluctant to take their children to be inoculated if they were even mildly ill with diarrhea, a cough, or a fever. Changes in practices, however, were more striking. Immunization coverage for the third doses of DPT and polio increased from roughly 50 percent to approximately 78 percent after the third Immunization Week.

INSTITUTIONALIZATION

The second major goal of the MMHP Project was to institutionalize the methodology and processes for conducting effective public health communication within the Honduran Ministry of Health. PROCOMSI I began the process by training a small cadre of professionals who conducted a successful communication effort changing health behaviors related to ORT. PROCOMSI II sought to solidify that institutionalization by effectively applying public health communication to other priority programs, by increasing and training the staff of the Division of Education, by improving the management system of the Division of Education, and by expanding the numbers and types of health professionals who understood and supported the public health communication processes. Following is a discussion of the most important indicators of successful institutionalization.

In mid-1984, the six Division of Education staff who previously had contractual arrangements became permanent employees of the Ministry of Health. Shortly thereafter, a new Division of Education head was named following the retirement of the previous head. He was thoroughly briefed and involved in the Public Health Communication Model and is now one of the most eloquent spokespersons on its process and effectiveness. He has spoken at various international conferences and has provided technical assistance to other ministries of health in the Central American region.

The Division of Education merged with the Educational Materials Production Unit. This unit had been attached to the Division of Human Resources and produced audio-visual materials for training health personnel. MOH decision-makers felt that the two units would be strengthened by merging them into one division responsible for all educational strategies and materials within the Ministry. The Division was reorganized to incorporate the staff of the Educational Materials Production Unit and to formalize coordination with regional MOH staff in designing and implementing national public health communication programs.

Once the new Division head was in place, staff were formally incorporated into the Ministry. Further, the Division of Education was reorganized, and PROCOMSI II was declared closed. The Division continues applying the methodology to new health priority programs, specifically to child survival, but they are considered part of the normal division activities, not special projects.

More MOH staff at all levels understood and supported the Public Health Communication Model. During PROCOMSI I, one of the constraints was the lack of understanding and support for many of the steps of the process. During PROCOMSI II, more people became involved in the process and, after observing the results, assumed a supportive role. For example, it frequently took at least three weeks to obtain per diem for pretesting during PROCOMSI I because many people involved in the process of obtaining funds did not understand the need for this expenditure. By the time PROCOMSI II ended, however, the process took less than two days. Technical directors now expect and support activities, such as the developmental investigation, pretesting, and monitoring. Moreover, they are involved in designing research and assisting in the analysis.

The Division of Education budget has increased significantly. At the inception of PROCOMSI I, the Division had funding for simple audio-visual materials for clinic staff, the Minister controlled some funds for broadcasting. Currently, the Division manages the increased funding in a manner necessary to support an integrated public health communication activity.

Ud. podrá trabajar pero sin dejar el tratamiento



Cuando el tratamiento termine volverá a ser un hombre sano como antes

La pena solo se ocupa para robar, si se siente enfermo al Centro de Salud debe llegar f



LESSONS LEARNED

PROCOMSI II was one of the first opportunities to apply public health communication to four programs in one year. Following this experience, Division staff believe that if several programs are to be supported, they should be related in several ways – the same target audience and a similar organizational support system. The Division is currently designing a communication strategy for a child survival communication which integrates EPI, a major new initiative regarding ORT, and acute respiratory infections. All of the programs are aimed at mothers of children under five and are the responsibility of the Division of Epidemiology. Other programs will be added as these programs reach sufficient levels of knowledge and behavior change. Division staff have been able to combine their developmental investigation monitoring of one comprehensive activity on all of the themes, thereby permitting them to use the technique of ethnography to understand in more depth the beliefs and practices concerning these programs. The communication strategy will integrate the three themes in a 'child survival kit,' with an umbrella slogan of 'For the Life of a Child.' In this way, the Division is better able to maximize resources and has more time to control the quality of each step.

During this program, the following eight lessons emerged as being particularly important:

1. Ministry of Health decision-makers and technical directors need to understand and support the steps of the Public Health Communication Model. Such an understanding is critical to creating the necessary support for effective public health communication.
2. Division of Education staff need to coordinate closely with the technical director of the health program. This coordination would ensure that the communication activity builds on the institutional capacity of the program to deliver services and products. It also ensures that materials and messages are technically correct.
3. A key to strengthening institutional capacity in public health communication is uniform training of Division of Education staff. The in-service training conducted during the implementation of the malaria program developed the necessary staff skills that could then be applied during design and implementation of the following campaigns:
4. Another key to institutionalization is to incorporate the steps of the methodology in the administrative processes. Budgets should include funding for pretesting, monitoring, developmental investigation, communication planning, and other activities generally not included in an MOH budget. The administrative processes for facilitating funding, transportation,

contracting for materials production, and per diems should be developed so that communication activities can be conducted in a timely fashion.

5. The MOH should identify priority programs for the Division of Education work. To conduct effective public health communication, the Division must follow each step of the process. This approach takes time and resources. It is critical to note that too many programs cannot be supported effectively.
6. The Division of Education should avoid creating a demand for products and services which the Ministry is unable to meet. The institutional organization, capacity, and distribution systems of the health program should define the level of demand created by the communication strategy.
7. Health workers and other service providers should be trained before mass media create a demand for their services and products. During PROCOMSI I, the project had funding for the implementation of all three channels – mass media, print, and interpersonal support. During PROCOMSI II, with the focus on increased institutionalization, the technical divisions were to be responsible for training their personnel. The level of training varied depending upon the funding and organization of each program. If training is conducted by others, the Division of Education will have to work even harder to ensure that the three channels are in place and working together simultaneously.
8. No one medium is sufficient in terms of having an impact on changing health behaviors; rather it is the integrated use of several channels – mass media, interpersonal support, and print materials – which has been one of the keys to a successful impact. Each channel has a special role. Mass media are to provide coverage to reach even isolated rural populations with new information. Print materials are to provide timely reminders of principal messages in the home when they are most needed. Interpersonal support establishes credibility.

In addition to these special insights, other principal lessons learned from previous communication programs were ratified. Health education, as traditionally practiced, has often meant:

- An isolated poster, pretested with the local cleaning lady because 'she's from the rural areas'
- A flipchart developed for group presentations

Como curarse de la tuberculosis



Ministerio de Salud
División de Epidemiología
División de Educación PROCOMSI II Etapa

that never take place because there is no money for travel or the flipchart never reaches health workers

- A few 'slick' TV spots which please the ministers but give little useful information
- Radio programs which advertise services that do not exist or give advice no one can follow
- Hours of lectures on community participation given to health workers who are too overworked to treat patients, much less organize community groups

Far too often ill-conceived messages have been pushed through weak channels at the wrong people with almost pitiful levels of resources

All of this occurs despite the fact that we know better. It is not that we do not know how to teach people -- just as it is not true that we do not know how to rehydrate a child. The problem is how to implement what we know -- how to put a system in place which reflects our understanding of how people learn and what works in the real world of poorly trained and overworked staff, scant and unreliable budgets, and varying health changes

Public health communication has demonstrated that such a system exists. We now know that people learn new behaviors best when:

- They are learning something they feel is useful.
- They practice what they are learning to do, the more practice the better
- They receive feedback on how they are doing and are rewarded when they do well
- Rewards are from several sources and are as immediate as possible

Programs that seek to teach new behavior, particularly to large, dispersed audiences, are better when they:

- Define through research what the health problem really is, whom it affects, how those people understand and respond to the problem, what obstacles they are likely to encounter, and how the audience can be influenced to change.
- Segment general audiences into smaller groups of people who view the problem in similar ways, thereby permitting more effective appeals to be directed at each different group.
- Use marketing behavior analysis and anthropological research to create messages or products that are:
 - salient in solving the problem
 - actionable given all of the real-life constraints on the audience segment

- attractive when compared to other alternatives facing that segment

- Test these messages and products to determine whether they actually meet the requirements and make appropriate changes if they do not.
- Ensure the practical and timely availability of whatever materials, supplies, and equipment are needed for the audience to act on the advice being given
- Integrate various communication channels (mediated, print, face-to-face) around a single set of coherent themes for each segment, thereby ensuring that the audience receives the same messages from more than one credible source and maximizing the particular strength of each channel
- Monitor all of the inputs through repeated mini-evaluations of selected outputs to determine whether the system parts are in place and if changes need to be made in the approach
- Commit to the long haul, thereby avoiding quick solutions and flashy campaigns, in favor of a long-term strategy which is modifiable but consistent over time

In carrying out the stages of the Public Health Communication Model, the following basic principles have emerged from past experiences:

- Build in participation of local policy-makers and training of project implementers to the extent possible so that they can learn from the project and replicate the process with minimal outside expertise. The local agency should be encouraged to articulate project design and take the lead in project implementation
- Consult with people from different disciplines and backgrounds (including physicians, marketing professionals, auxiliary health personnel, commercial retailers, and communication specialists) throughout the life of the project, to secure the diverse skills and technical expertise needed.
- Emphasize the need for communication projects to accompany and reinforce service availability. To this end, maintain contact with other AID-funded activities and private agencies to share resources and ensure well-trained communication support in expanding services.
- Provide for coverage, timeliness, and credibility -- all three are needed. Coverage is the ability to reach many people quickly, and it is best achieved through the media. In most countries,

this means radio. Timeliness, or the availability of specific reminders about child survival behaviors at the moment they are needed, is best accomplished by print materials -- for example, a growth monitoring chart or immunization card. Credibility, or the acceptance of child survival behaviors by patients, is best achieved through the full support and use of these technologies by recognized health professionals in the country -- physicians, nurses, and health workers -- as well as product distributors and community-level opinion leaders, such as traditional healers.

- Have a complete plan, not a piecemeal one. One needs:
 - A product designed to meet consumer needs at a price they are willing to pay
 - An adequate supply and distribution system
 - A single set of simple, noncontradictory messages and an explicit linkage between what service providers, product distributors, radio, and print media tell the public
 - A training program for health workers and product distributors which emphasizes teaching skills as well as service delivery
 - A broadcast schedule timed to reach specific audiences

- A series of simple print reminders of primary skills for each health technology.

- Base the plan on field research. An effective plan must be based on field research of existing audience practices and beliefs as well as product and feasibility testing and on channel research.
- Segment audiences for specific, consistent, and continuing messages and maintain regular direct contact with and feedback from these groups. Do not neglect influential people.
- Develop messages that are compatible with the audience's beliefs, that emphasize the personal advantages of the health technology for the target audience, and that attract and hold attention.
- Collaborate closely with health care providers -- government and private, medical, traditional, and commercial organizations -- to stimulate their use of, or reference to, materials and messages in working with clients. Provide training as needed.
- Use many intermediate measures, as well as goals, to assess project effects and make mid-course corrections. Encourage attention to management needs and capabilities as well as to audience impact.

APPENDIX

Materials Produced During the Project

Communication Channel	1983	1984	1985
1. Malaria Control			
Spots Produced	5		
Spots Broadcast	9,394	15,869	
Radio Programs	37	43	
Flyers	256,900		
Pamphlets	80,000		
Collaborator's Identification Card	6,000		
Collaborator's Diploma	6,000		
Persons Researched	510		
2. Diarrheal Disease Control			
Spots Produced	3	2	
Spots Broadcast	15,885	22,392	34,164
Radio Programs	162	120	
Flyers	100,000		
Posters	17,700	25,000	20,000
Instruction Sheets	140,000	100,000	100,000
Pennants	6,000	2,000	
Comic Books	40,000		
Flipcharts	625		
Calendars	50,000	20,000	
Manuals for 'Guardians'	3,000	3,000	
Persons Researched	690		
3. Tuberculosis Control			
Spots Produced	3		
Spots Broadcast	11,596		34,164
Radio Programs	135	130	
Posters	15,000		15,000
Flipcharts	1,000		
Pamphlets	20,000		
Instructional Classes		300,000	
Persons Researched	814		
4. Immunization Program			
Spots Produced	6	22	
Spots Broadcast	13,380	58,196	79,716
Radio Programs	120	285	
Flyers	100,000	100,000	
Press Supplements		50,000	50,000
Posters	60,000	60,000	30,000
Vaccination Cards		100,000	
TV Spots	1	2	
Persons Researched	580		