

MASS MEDIA & HEALTH PRACTICES

PROJECT IMPLEMENTATION

PLAN 001

931017

Academy for Educational Development, Inc.

15M

36750

Sponsored by the Office of Health and Office of Education
Development Support Bureau
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

AN 10300 C 0022

Document # **20**

SECOND YEAR IMPLEMENTATION PLAN

HONDURAS

Project Director

Dr. William A. Smith

THE GAMBIA
Mark Rasmuson

HONDURAS
Reynaldo Pareja
Elizabeth Booth

WATER & SANITATION
Oscar Vigano

INTRODUCTION

This document is one of a series of reports prepared by the Academy for Educational Development, Inc. under its Mass Media and Health Practices Project contract with the United States Agency for International Development. It represents the implementation plan for the second year of campaign activities in Honduras. The full series includes:

Document #1	<u>Scope of Work - Technical Proposal</u>
Document #2	<u>Contract Scope of Work</u>
Document #3	<u>Semiannual Report No. 1</u>
Document #4	<u>Project Agreement with Honduras</u>
Document #5	<u>Semiannual Report No. 2</u>
Document #6	<u>Honduras Target Region Selection Process</u>
Document #7	<u>Semiannual Report No. 3</u>
Document #8	<u>Principal Health Considerations</u>
Document #9	<u>Developmental Investigation Protocol</u>
Document #10	<u>Institutional Review Board</u>
Document #11	<u>Honduras Regional Background Paper</u>
Document #12	<u>Description of Field Investigation Activity: Honduras</u>
Document #13	<u>Communication and Development</u>
Document #14	<u>Results of Honduras Field Investigation</u>
Document #15	<u>Implementation Plan: Honduras</u>
Document #16	<u>Semiannual Report No. 4</u>
Document #17	<u>Semiannual Report No. 5</u>
Document #18	<u>Semiannual Report No. 6</u>
Document #19	<u>Implementation Plan: The Gambia</u>
Document #20	<u>Second Year Implementation Plan: Honduras</u>
Field Note #1	<u>Packets: Do Visual Instructions Make a Difference?</u>
Field Note #2	<u>Packets: More Questions and Few New Answers</u>
Field Note #3	<u>The ORT Poster: Something Special for the Professionals</u>
Field Note #4	<u>Selecting Campaign Message</u>
Field Note #5	<u>Building a Network of Effective Providers</u>

CONTENTS

	<u>PAGE</u>
<u>GRAPHS AND CHARTS</u>	i
<u>BACKGROUND</u>	ii
<u>CAMPAIGN SUMMARY</u>	iii
I. <u>SUMMARY OF FORMATIVE EVALUATIONS</u>	
. Radio	I-1
. Graphic Materials	I-2
. Training	I-3
D. ORT Use on the Home Level	I-3
E. Acceptance of ORT within the Ministry of Health	I-5
II. <u>CAMPAIGN ELEMENTS</u>	
A. Overall Strategy	II-1
B. Segmentation of Target Audience	II-3
C. Message Definition	II-4
D. Message Phases	II-6
E. Instructional Materials	II-8
F. Training	II-14
G. Dissemination System	II-16
H. Monitoring of Campaign Components	II-20
III. <u>INSTITUTIONALIZATION</u>	III-1
<u>APPENDICES</u>	
A. Original Treatment Behaviors	A-1
B. Training Plan for Community Health Workers	B-1

GRAPHS AND CHARTS

		<u>PAGE</u>
Graph #1	Campaign Phases	II-2
Graph #2	Message Concept by Target Audience	II-6
Graph #3	Message Concept by Campaign Material	II-8
Graph #4	Pretesting Design for Phase IV	II-9
Graph #5	Regional and National Broadcast Ranges	II-18
Graph #6	Broadcast Schedule - Phases IV and V	II-19
Graph #7	Programming of the Radio Spots: Phase IV	II 20

BACKGROUND

On September 30, 1978, the Academy for Educational Development was contracted by the Offices of Health and Education of the Science and Technology Bureau (ST/H, ST/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. Simultaneously, Stanford University was contracted to evaluate the project.

Project Agreements were signed in September of 1979 with the Government of Honduras and in December of 1980 with the Government of The Gambia. These agreements define the terms of collaboration between project personnel and the respective Ministries of Health (MOH) in both countries, and emphasize the dual goals of the program:

- 1) to strengthen the health education capacity of the cooperating countries through the systematic application of mass communication; and
- 2) to contribute significantly to the prevention and treatment of acute infant diarrhea in isolated rural areas of both countries.

In January of 1980, work began on the 36-month program in Honduras. The program includes resources for materials production, broadcast time, developmental research, and six person/years of long-term technical assistance. The program in The Gambia began in May of 1981, and is scheduled for 24 months, and includes resources for materials production, developmental research, and two person/years of long-term technical assistance.

In both countries, project personnel will assist national health personnel in developing a public education campaign which combines radio, specialized print materials, and health worker training to deliver information on home treatment of infant diarrhea, including the proper preparation and administration of oral rehydration therapy (ORT). Other critical messages include information on rural water use, sanitation practices, infant feeding, food preparation practices, and personal hygiene.

On February 2, 1981, the AID Mission in Honduras amended the Academy's Mass Media and Health Practices contract to expand the emphasis given to water and sanitation messages. The amendment provides additional technical assistance to a separate mission-supported program in three northeastern provinces of Honduras. This activity is referred to in this report as the Water and Sanitation (W&S) Component of the Mass Media and Health Practices (MM&HP) project.

This report represents the implementation plan for the second year of the MM&HP campaign in Honduras.

CAMPAIGN SUMMARY

The Problem

Honduras reported that 1,030 infants died from diarrheal dehydration in 1977. This accounts for 24 percent of all infant deaths and represents the single greatest cause of infant mortality in Honduras. The most commonly available treatment for diarrheal dehydration in Honduras is intravenous therapy (IV). IV therapy is expensive, requires trained medical personnel and a relatively sterile environment, and is presently available only in fixed health facilities which serve a small portion of the country's rural population.

Communication Objectives

- Substantially reduce the number of deaths among children below the age of five from diarrheal dehydration.
- Extend rehydration therapy to isolated rural areas where it is not now available.
- Substantially reduce the per-patient cost of rehydration therapy in Honduras.
- Introduce several diarrhea-related prevention behaviors to a significant number of rural people living in isolated areas.

Audience Definition

- Primary audience is rural mothers/grandmothers with children under the age of five, primary health care workers called guardianes and midwives.
- Secondary audiences include physicians, nurses, auxiliary nurses, fathers of children under five, rural school teachers and children, and regional health promoters.

Communication Strategies

- a. Teach the primary audience:
 1. To properly prepare pre-packaged World Health Organization (WHO) formula oral rehydration salts and correctly administer the solution to:
 - infants (less than a year), as soon as the child gets diarrhea, and
 - toddlers (older than one year), as soon as the child loses his/her appetite or becomes listless
 2. To seek outside assistance if the child does not improve after administering the above regimen

3. A cluster of behaviors associated with breast-feeding, infant food preparation, and personal hygiene
- b. Teach secondary audiences to support the primary audience through:
1. Physicians and nurses using oral therapy in all fixed facilities
 2. Fathers and midwives understanding and approving of oral therapy
 3. Rural schools teaching prevention measures
 4. Regional health promoters distributing ORT packets

Message Tone

The tone of the campaign will be serious and straightforward. It will seek to promote a mother-craft concept which supports what mothers are already doing and adds several new components to "being a good mother." ORT will be presented as the latest achievement of modern science: a remedy for lost appetite and an aid to recovery, but not as a remedy for diarrhea.

Execution

Television, radio, print materials, and health worker training will be used. Public service spots and mini-programs on radio will be stressed for rural mothers and health workers. These will be supported by news features on both radio and television for medical practitioners. Support materials including posters, photonovels/pamphlets, and mailings will supplement the broadcast media. Health worker training, including physicians, nurses, auxiliary nurses, guardianes and midwives will be the primary vehicle for introducing oral therapy to the medical establishment.

SECTION I

SUMMARY OF FORMATIVE EVALUATIONS

The implementation plan being proposed for the second year of the mass media campaign draws on the experience of the first year, during which two formative evaluations were performed. The first formative evaluation, in September 1981, attempted to assess the role of each element of the campaign; radio, graphics and face-to-face instruction, and recommend how each could be improved. The second, performed in February 1982, tried to assess how ORT had been incorporated into the traditional treatment of diarrhea. Some of the more important findings of the two studies used to adjust the campaign are described below.

A. RADIO

- The majority of mothers reported hearing at least one MOH message.
- Dr. Salustiano, a radio broadcaster on the spots, has become a well-known, believable source of childcare information among the mothers interviewed. Many mothers believe he is a real doctor at the Ministry of Health.
- There was no significant difference in knowledge gained from radio between the mothers who had used LITROSOL and those who had not.
- Even mothers who had not used LITROSOL had learned that LITROSOL should be given to the child with diarrhea, that it should be mixed in a liter and where it can be obtained.
- Most mothers reported hearing the projects messages on station HRN (the most powerful national station) A much smaller group reported hearing the messages on Radio America (the second most powerful national radio station). However, in one area of the region many mothers reported not listening to HRN, suggesting that both national stations should continue to be used.
- Mothers also reported hearing the spots on regional radio stations, most frequently on Radio Oriental and Radio El Paraiso. Radio Latina and Radio Sonora were very infrequently mentioned, reconfirming the results of the Developmental Investigation.
- Some technical information should be conveyed in a 60-second format rather than the 30-second format. "Consulta para Todos," a new 60-second spot in which real rural mothers ask Dr. Salustiano questions about certain treatment behaviors, has been shown to be very effective.
- The proposed fifteen-minute radio program should have as its target audience the guardianes and midwives that distribute LITROSOL rather than the mothers. The evaluations and discus-

sions with these personnel indicate that they need support from the Ministry. The program will also reinforce training of treatment and prevention messages. This is especially important since the time dedicated to guardian training in ORT will be cut from one day to one or two hours.

- The project should attempt to use all of the free air time possible on both national and local radio stations, in particular the public service announcements, news stories, and the weekly PANI Lottery program.
- The use of mothers voices in the spots has proved to be very effective and mothers tend to have a high recall of these spots which use "typical" voices and vocabulary. This format should continue to be widely used.

B. GRAPHIC MATERIALS

- The distribution system for graphic materials proved to be effective and almost all of the sites, even the most rural, had at least one or two posters in the community. However, after several months, many of the posters were in rather bad shape and needed to be replaced.
- The poster printed on news print (symbol of Litrosol) was reported to have disintegrated within weeks during the rainy season.
- The poster on breast-feeding was the most frequently remembered poster. The symbol of LITROSOL was the least frequently remembered.
- Of all of the materials, the poster on signs of dehydration and the educational flyer were the most frequently used as educational aids by the guardianes, midwives and mothers. Both of these materials are undergoing revision before they are reprinted.
- Many guardianes and midwives are storing their posters since they believe they will not receive more materials. These personnel should be encouraged to put up their posters in the community during the rainy season.
- Both evaluations reiterated the appreciation mothers have for calendars.
- In order to include school children in the campaign the project should begin work immediately on the photonovel which will teach children how to recognize signs of dehydration and help their mothers know when to seek medical help.

C. TRAINING

1. Guardianes and Midwives

The guardianes and midwives proved to be the major source of information and orientation for the mothers about the use of LITROSOL. The evaluations showed that the training given the community personnel provided a sound basis for the treatment and prevention messages. However, several problem areas were indicated:

- Many guardianes were not using the educational flyer correctly when teaching the mothers. In general they would explain the first three steps but would completely skip the information on feeding during diarrhea and signs of dehydration. The use of the packet should be stressed in training and on radio during the year.
- Many community personnel still believe that LITROSOL stops diarrhea, in part because many mothers have reported to the guardianes that the diarrhea stopped when they used LITROSOL. This is most probably because the mothers began using LITROSOL two or three days after the diarrhea episode began, and by the time they began using it the diarrhea was already stopping. The second evaluation showed that some mothers were upset because the second time they used LITROSOL the diarrhea didn't stop. This is most probably because since they had success in "stopping the diarrhea" with LITROSOL the first time, they began using LITROSOL when the diarrhea first started. In any case, it is crucial that the community health personnel understand the concept of dehydration and that LITROSOL is not designed to stop diarrhea.
- Most community personnel are correctly teaching preparation and administration, however, they are omitting feeding during diarrhea. This year's training should re-emphasize these points.

2. Village Mayors

Village mayors proved to be excellent distribution points for packets, permitting the project to distribute 45,000 packets in addition to those distributed by the Ministry of Health. However, the training of these personnel was inadequate. One suggestion is that the Auxiliary nurse in the municipal capital help select and train the village mayors in her area of influence. This would allow the auxiliary nurse to better control the selection of village mayors distributing LITROSOL. She would also be able to correct any mistakes the mayors might be making in their recommendations. In any case, in order to continue to make LITROSOL available to rural villages throughout the region, the evaluation study recommends that village mayors continue to be used, but with the stipulation of improved training and better control by regional MOH staff.

D. ORT USE ON THE HOME LEVEL

- In general, mothers had no problems in the preparation of LITROSOL, the local name for the ORT solution. Few mothers in the sample had not used a correct liter measure while mixing the solution.

- The majority of mothers reported administering a liter of the mixture in a day, even when the patient was an infant. This was surprising due to the fact that the Developmental Investigation carried out before the campaign began showed that most mothers did not believe that an infant could drink a liter of water in a day.
- The mothers did not understand that feeding during diarrhea is part of the treatment. Most mothers did not remember any advice about feeding or breast-feeding during diarrhea.
- During the first evaluation, most mothers still believed that LITROSOL is a remedy for diarrhea. However, the second evaluation, which took place after several months of radio messages about LITROSOL returning activity and appetite, showed a small but significant group of mothers who understood that LITROSOL is not suppose to stop diarrhea, but rather to "sustain the life of the child during diarrhea" and return activity and appetite.
- Almost all of the mothers used LITROSOL for children with diarrhea under five-years-old. However, some mothers would give part of the mixture to other children in the house, even though they didn't have diarrhea. Some mothers are using LITROSOL as "tonic for extra strength" even though the child doesn't have diarrhea. This has been reduced somewhat by the guardianes and midwives who are instructed not to give mother the packets unless the child has diarrhea. There also seems to be adult use of LITROSOL.
- In the first evaluation, most mothers did not use the instructional flyer, or hoja-paquete. However, in the second evaluation, after several months of radio messages instructing mothers to follow all of the instructions on the flyer, almost all of the mothers reported that following the instructions was important.
- Mothers were not familiar with the visual signs of dehydration; a message which was only transmitted to a limited extent by face-to-face instruction and the poster.
- The second evaluation showed that LITROSOL has been integrated into the traditional process of treatment of infant diarrhea in the rural communities. However, this integration has caused several problems in diagnosis, administration and preparation:
 - * Mothers use LITROSOL for what they consider to be light cases of diarrhea, but not for what they perceive to be serious complex cases such as empacho or ojo. Since these more serious cases are probably more likely to lead to dehydration, it is important that mothers feel that they should use LITROSOL during these episodes as well.
 - * The traditional treatment of diarrhea entails the use of a series of different medicines, trying first one, then another, until the diarrhea stops. Many mothers feel that these medicines should not be mixed. The campaign

should emphasize that LITROSOL can be used while the mother is giving other medicines, but that the important thing is to continue using LITROSOL. At the same time the campaign should emphasize that LITROSOL should be used during the entire episode of diarrhea and not just one or two days.

- * Rural mothers try to budget their limited resources and some mothers are mixing only part of the packet in part of a liter. This could cause problems in the concentration of sodium. Radio and training should emphasize that all of the packet must be mixed in a full liter of water.
- * Many mothers and health workers complained that children didn't like the taste of mixture. A small number of mothers reported adding sugar to help the taste. Training and radio should emphasize that nothing should be added to the mixtures and inform that if the child needs the oral solution he will like the taste.

E. ACCEPTANCE OF ORT WITHIN THE MINISTRY OF HEALTH

While no formal information is being collected periodically to measure the overall acceptance of ORT within the Ministry of Health, the following facts do provide important insight into this critical aspect of the program.

- The MOH has approved a four year National Diarrheal Disease Control Program which establishes a schedule, assigns personnel and defines resources necessary for a phased national level program.
- A diarrhea disease program director has been named and given full authority to coordinate all aspects of the program from clinical training and packet production to public education.
- Honduras hosted a Latin American regional seminar on Diarrheal Disease Control at which their own program was highlighted and analyzed.
- A rehydration ward was formed at the national pediatric hospital, but was subsequently closed due to lack of financial support. A similar, regional facility was planned but never opened for the same lack of economic resources.
- Some 227 medical personnel, including physicians, nurse supervisors and auxiliary nurses, have been trained in ORT use and diarrheal disease management. Some 692 village health personnel have been similarly trained.
- Some 248,000 Litrosol packets have been produced locally and distributed throughout Health Region I.
- A packet distribution has been developed and is now being fully implemented by Regional Health staff.

SECTION II

CAMPAIGN ELEMENTS

A. OVERALL STRATEGY

The second year of the education campaign on treatment and prevention of acute infant diarrhea in Honduras will continue to promote the administration of pre-packaged, WHO formula, oral rehydration therapy by rural mothers in their homes during mild to moderate bouts of diarrhea. Rural mothers will be told that if the diarrhea becomes worse they should take their child to fixed health facilities where a more structured and controlled administration of oral therapy will be available.

Two basic messages, to administer ORT correctly when your child becomes mildly ill, and to seek help if the child gets worse, will be the central themes of the campaign. These themes will be supplemented by messages on prevention behaviors which focus on continued breast-feeding.

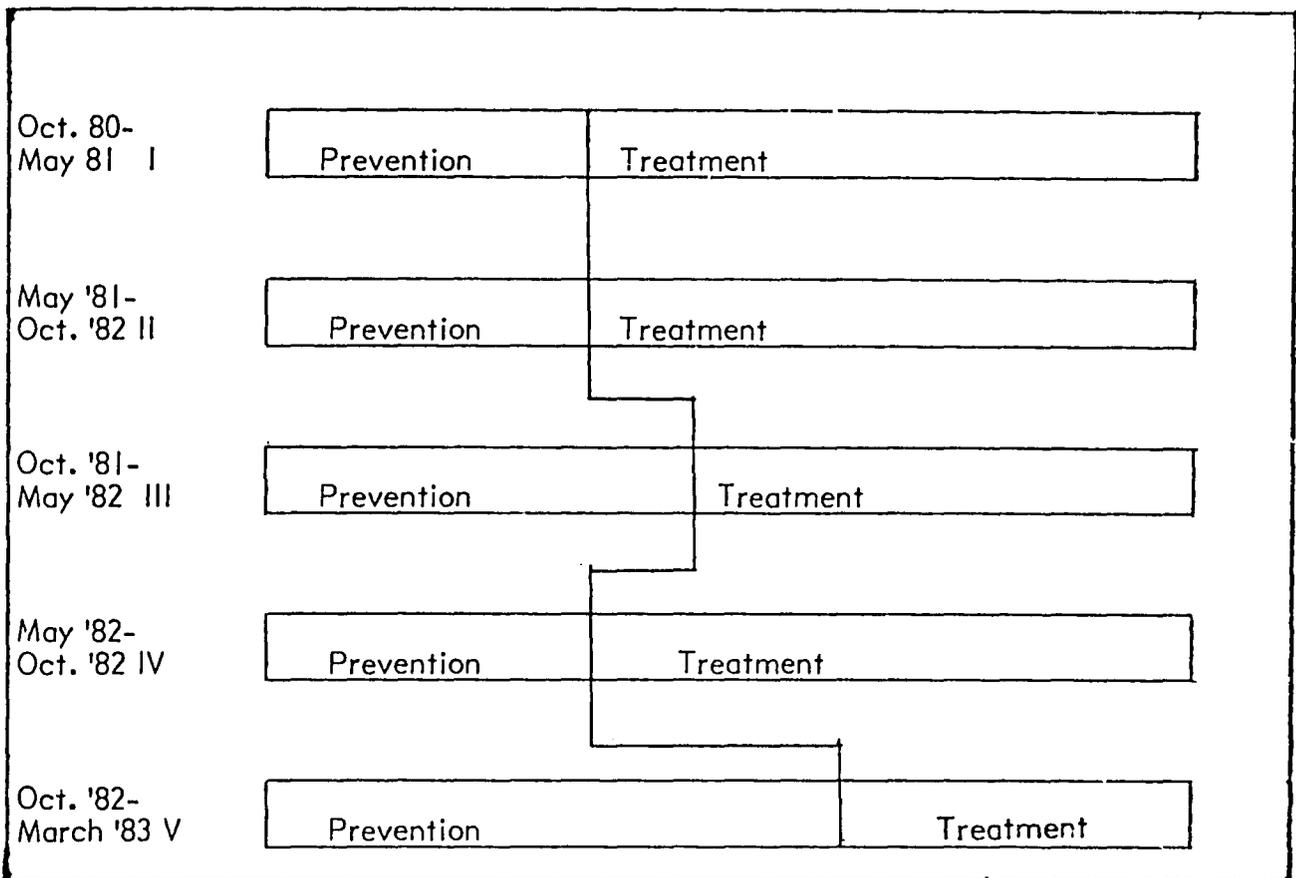
Treatment messages will continue to be stressed over prevention messages for three reasons: (1) ORT offers the most significant and immediate contribution to the health needs of rural Hondurans, (2) the behaviors required to make ORT successful in rural homes represent an optimal range of instructional complexity which will permit evaluators to determine mass communication's ability to significantly affect various aspects of an important health behavior, and (3) a general skepticism surrounding the ability of health education alone to make any significant impact on rural diarrheal morbidity.

The primary target audience in the campaign will be rural mothers and grandmothers with children under five, the primary health care workers (guardianes), and MOH midwives, who distribute LITROSOL in the sites without MOH guardianes. Several other groups including rural fathers, physicians, nurses, auxiliary nurses, rural primary school teachers and children, and health supervisors (promotores) will receive a small number of specialized messages designed to motivate them to reinforce and support mothers, guardianes and midwives in the correct application of ORT.

The full campaign is a two-year effort divided into five sequential phases timed to coincide with the peak seasons of diarrhea (see Graph 1). This plan describes the second year of the campaign. The first year of the campaign (1981) contained Phases I and II and part of Phase III. The second year of the campaign is composed of Phases III and IV. Phase III (October 1981 to May 1982) will emphasize mainly radio and will be used by the team for formative evaluation and reassessment of the effects of the previous year's campaign. Phase IV (May through September 1982), which coincides with the second diarrheal peak during the life of the project, will re-emphasize proper ORT treatment, specifically emphasizing correcting problems of preparation and administration identified in the formative evaluations. It will also emphasize that mothers should seek help if a child shows signs of dehydration. Radio will be especially emphasized during this phase, with graphics and face-to-face training supporting the messages transmitted by radio. Institutionalization of the program, especially the distribution of materials and packets, will also be heavily emphasized.

Phase V (October 1982 to March 1983) will shift to prevention behaviors, in particular continued breast-feeding. Specific messages will be developed through the Ministry of Health Breast-feeding Committee.

GRAPH #1 CAMPAIGN PHASES



The formative evaluation activity of the first year, indicates that the audience segmentation designed during the first year has been effective. The second year message pattern will continue to differentiate messages by specific audience. The treatment pattern will continue to be built around a core cluster of treatment behaviors which is either expanded for audiences like physicians, nurses, and auxiliary nurses, or selectively emphasized for groups like school children and guardianes. This means that auxiliary nurses will continue to be taught how to treat severe dehydration with oral therapy in addition to the home treatment being taught to rural mothers. School children will not be taught the entire core cluster of oral therapy behaviors directed at mothers, the information will focus on early diagnosis of dehydration and alerting mothers to the problem diarrhea represents. Prevention messages will also be differentiated by target audience.

Radio will continue to be the principal means of reaching rural mothers. While simple print materials such as posters and graphic pamphlets will be distributed widely, it is expected that many mothers will receive only the radio messages. As expected, word-of-mouth has proven an important secondary source of information for mothers. The primary contact points for mothers will be guardianes, rural clinics, children's hospitals in Tegucigalpa, and rural primary schools. Schools were added to the communication network because they offer a relatively simple way to provide structured information to a large number of rural homes. The guardianes will be reached by an intensive preliminary training effort, and supported through regular bimonthly meetings, radio broadcasts, and simple print materials. Secondary audiences such as physicians, nurses, and

health promoters will be reached principally through print media, although regular news items are expected to be important motivators for these groups.

B. SEGMENTATION OF TARGET AUDIENCE

The general target audience defined in the project contract includes rural "family members who participate in directly caring for children, health workers, and other opinion leaders who have the power to assist and reinforce (or undermine) the relevant educational objectives." During analysis of the Developmental Investigation results, seven audience groups were identified, as follows:

- Primary Audience (Category A)
 1. Mothers/grandmothers of families with children less than five years old
 2. Primary health care workers (guardianes) or trained midwives (midwives) in communities with no guardianes
- Secondary Audience (Category B)
 3. Fathers of families with children less than five years old
 4. Auxliary nurses
 5. Physicians
 6. Rural school teachers and rural primary school children
 7. Health promoters

These audience groups have been divided into two categories: a primary audience in Category A, and a secondary audience in Category B. While a case can be made for each of these groups playing primary audience roles, several factors argue for concentrating instructional efforts on the two groups in Category A.

The basic rationale for this emphasis rests upon the overwhelming evidence that mothers, and to a lesser degree, grandmothers, care for children when they are sick. While it is true that older siblings play an important child care role, their role is significantly decreased as the child becomes recognizably ill.

Guardianes and midwives will continue to be the second group in the primary audience. During the first year, 219 guardianes and 354 midwives were trained in oral rehydration therapy. The evaluations indicate that the guardianes, and to a lesser extent the midwives, provide good face-to-face training to the mothers. Since guardianes are not present in many rural communities, midwives who are already part of the informal MOH system will continue to be trained in oral rehydration therapy.

Within the secondary audience, Auxiliary nurses and physicians will continue to be given special importance because they represent the exemplary unit to which all other elements of the system look for guidance. There is still some resistance to ORT by these health professionals because of the increased work load required by oral rehydration therapy in comparison with the intravenous therapy to which health professionals are accustomed. There is also some skepticism by these professionals concerning various mes-

sages of oral rehydration treatment, for example, continued use of ORT when the child is vomiting and continued feeding during diarrhea. In particular, some health professionals at all levels still believe that ORT stops diarrhea in spite of emphasis in the training that ORT is to prevent and treat dehydration. Because of these problems these health providers will continue to receive special support from the project.

Fathers will continue to be included in Category B because of their gate-keeping function regarding the purchases of medicines and their role in deciding when to seek outside help. Rural schools will be utilized for the first time this year to reach older siblings with treatment, diagnosis and prevention messages. Mobile health promoters did not prove good distribution vehicles for packets or graphic materials last year and will therefore primarily be used as message reinforcers.

C. MESSAGE DEFINITION

I. Treatment Messages

Based on the results of the Formative Evaluation enumerated in Section I, the following treatment campaign has been designed for 1982.

The tone of the treatment campaign will continue to be serious. Oral therapy will be portrayed as the latest advancement in science, rather than a simple home remedy. Emphasis will be placed on correcting those mistakes the various audiences are making in preparation and administration. However, this year emphasis will also be placed on when the mother should seek help, emphasizing signs of dehydration mothers can observe rather than the concept of loss of liquids.

The specific form of oral rehydration therapy selected for MM&HP treatment messages will continue to rely on the pre-packaged, complete formula mix. The packets of LITROSOL are produced for the MOH in Honduras and like the World Health Organization (WHO) packets must be mixed in one liter of water. Two packets are given to each mother for each case of diarrhea. These packets are wrapped in a specially designed flyer (hoja-paquete) which contains the basic instructions concerning preparation and administration, feeding during diarrhea and signs of dehydration. The packets will continue to undergo design and product testing procedures, in particular potential shelf-life problems.

The core treatment behaviors, as outlined in the Implementation Plan for the first year, will continue to be more or less the same with the following additions and changes to various clusters (see Appendix A for original Treatment Clusters):

- Cluster B: Acceptance Knowledge
 7. State that mixture should be given during all episodes of diarrhea, not just mild cases.
- Cluster D: Mixing Ability
 10. State that three bottles of fresco make one liter.
- Cluster E: Administration
 1. State that mixture can be used while administering other medicines for diarrhea.

2. State that mixture should be given during the entire episode of the infants diarrhea episode, not for just one or two days.
3. Continue breast-feeding during diarrheal episodes.
4. Give soft foods six hours after diarrhea starts. Do not stop foods.

Cluster F: Seek External Help

4. If child presents signs of dehydration (dry mouth, sunken eyes, sunken fontanel, flacid skin or listlessness), seek medical help.

2. Prevention Messages

Because of the complexity of treatment messages, all of which present totally new concepts to the rural mother, prevention messages have not taken as large a role in the campaign as previously hoped. However, the fifth phase of the campaign will emphasize prevention almost entirely with only limited messages about treatment. It was therefore decided to dedicate the limited time and resources available to the one prevention behavior which had the most possibility of affecting diarrheal morbidity. After long discussions with Ministry of Health staff and WHO personnel, it was decided to promote continuous and extended breast-feeding. This decision coincided with the formation of a Breast-feeding committee with representatives from various institutions which is coordinated through the Ministry of Health. The goals of the Committee are to unify the breast-feeding messages given by the various government agencies and private institutions involved in promoting breast feeding and to coordinate strategies so as not to duplicate materials. The exact messages of the fifth phase of the campaign will be selected in cooperation with this Committee and the MM&HP personnel will then design the campaign in terms of audience segmentation and media.

Other prevention messages, concerning personal hygiene and food preparation, will basically only be taught through face-to-face training and not by radio. The message of water boiling will be taught through a comic book developed by the Water and Sanitation component of the MM&HP project and distributed to school children within the Region.

The following graph presents the message content of the campaign in relation to the seven target audiences.

GRAPH # 2 MESSAGE CONCEPT BY TARGET AUDIENCE

		MOTHERS/ GR. MOTHERS	GUARDIANES/ PARTERAS	PHYSIC NURSES	AUXIL NURSES	FATHERS	SCHOOLS	HEALTH PROMOT.
TREATMENT	ACCEPTANCE	↑	↑	↑	↑	✓	✓	
	DIAGNOSIS		✓			✓	✓	
	PROCUREMENT							✓
	MIXING		✓					
	ADMINISTRATION	✓	✓					
	RECOVERY					✓		
	SEEK HELP	↓	↓	↓	↓	✓	✓	
(ADDITIONAL MESSAGE CONCEPTS)	• ANTIBIOTIC/DRUG THERAPY			✓	✓			
	• FIXED FACILITY REGIMEN			✓	✓			
	• TEACHING BEHAVIOR		✓		✓			
PREVENTION	PRE-REQUISITE CONCEPTS	✓	✓					
	BREASTFEEDING	✓	✓	✓	✓	✓		✓
	FOOD PREPARATION		✓		✓		✓	
	PERSONAL HYGIENE		✓		✓			

D. MESSAGE PHASES

The overall campaign is divided into five distinct phases of approximately six months each. Each phase emphasizes slightly different content matter and is structured to coincide with seasonal variations associated with diarrheal peaks. Phased development also permits systematic incorporation of monitoring information and the efficient distribution of production material resources over the course of the campaign. Some messages will be repeated in slightly modified forms over the entire two-year campaign, while other messages will be disseminated intensively during only one or two phases of the campaign. This will permit conclusions to be drawn regarding the relative merits of time and repetition as factors affecting message adoption.

Design of these phases has been based upon four factors. First, timing should depend upon seasonal changes in the diarrheal cycle. Review of epidemiological data from the past five years clearly shows a diarrheal peak occurring during the rainy months of May through July, with a secondary peak occurring in November and December. The second peak is somewhat lower, and it is theorized that this peak may be caused by viral rather than bacterial agents. The larger, possibly bacterial, peak has been selected as a critical treatment period because it appears more susceptible to prevention measures. The project phases are structured so that heavy prevention messages immediately precede these peak periods, and that treatment messages dominate the peak periods themselves.

The second factor taken into consideration is the importance of having full medical community support for the program. The pre-program research showed that most

rural Hondurans, even though they retain traditional remedies and beliefs, are heavily influenced by the professional medical community. Without the support of these professionals, oral therapy will not be accepted by rural people. For our purpose, the professional community includes private physicians practicing in Tegucigalpa and the semi-urban areas (Dali, El Paraiso), MOH fixed health facilities (CHE, CESAMO, CESARS), nurses, auxiliary nurses, and primary health care workers (guardianes). Full conversion of the Region I medical community to oral therapy represents a significant challenge to project success, one requiring special attention throughout the campaign.

The third factor used to determine phase design is the emphasis on treatment over prevention. Because oral therapy has been established as a priority over the promotion of purely preventive measures, one additional cycle has been assigned for treatment messages. As the graph indicates, no cycle is dedicated solely to treatment or prevention messages, but proportional levels of effort have been established for each. This permits treatment to receive special attention, without neglecting the reinforcement of messages designed to sustain compliance with selected prevention behaviors.

Finally, the design and production capacity of the project staff was used as an important consideration in selecting a sequenced campaign development. The team's financial and human resources necessitate a gradual development of messages, spreading these functions over time, rather than concentrating them in one or two production cycles. The five-phase configuration allows phased development of materials but also permits systematic monitoring and provides longer lead time for needed adjustments.

Phase I of the campaign focused upon critical enabling messages identified during the pre-program investigation as important prerequisites to adoption of both treatment and prevention behaviors. The essential goal was to implant oral therapy as a standard operating procedure in Health Region I of Honduras. A secondary goal was to rely on radio and print media to promote four enabling concepts among the general rural population, with special emphasis given to rural mothers with children under five.

Phase II shifted from a face-to-face approach to a heavily mediated campaign directed principally at rural communities. The central message here was oral therapy. This phase coincided with the first diarrheal peak and represented a period during which treatment information was most critical. Supplementary prevention behaviors were promoted, but primary emphasis was on treatment messages.

Phase III focused on the evaluation of the campaign with some treatment and prevention messages. The major goal of this phase was to evaluate what had been accomplished during the first two phases and decide how the next treatment phase could be improved.

Phase IV, which coincides with the second largest diarrheal peak, will turn to a treatment focus, attempting to reinstate oral therapy.

Phase V will focus on prevention, promoting messages on continued and extended breast-feeding.

The overall design provides long-term emphasis on periods of treatment messages, and distribution of mediated and face-to-face instruction over the entire two-year campaign. As regards the latter point, it should be noted that while face-to-face training receives less emphasis during Phase II, III and IV, it does not disappear altogether. The training component, as detailed later in this plan, includes low levels of continuing face-to-face support for health workers during the two-year campaign.

E. INSTRUCTIONAL MATERIALS

Campaign materials have been divided into three large areas: broadcast radio materials, visual and graphic support materials, and face-to-face training materials. Each of these areas has been broken down into various formats and these products have been targeted to specific message concepts and specific target groups. Graph #3 illustrates how message concepts and campaign materials are related.

GRAPH #3 MESSAGE CONCEPT BY CAMPAIGN MATERIAL

	BROADCAST - RADIO					GRAPHICS					SUPPORT VISUALS		TRAINING		
	Spots	Weekly Program	News	PSA's	Show	Packet	Photo-Novel	Calendar	La Gaitera	Flip-Chart	Poster	Practical Seminars	Guardianes	Midwives	Doctors
MATERIALS	ACCEPTANCE	X				X						X	X	X	
	DIAGNOSIS											X	X	X	
	PROCUREMENT	X			X							X	X	X	
	PLANNING											X	X	X	
	ADMINISTRATION	X				X						X	X	X	
	RECOVERY	X										X	X	X	
	SPEX HELP	X				X						X	X	X	
	ADDITIONAL MESSAGES: Concepts, Anti-Biotics, Drug Therapy, Etc.				X							X	X	X	
	FIXED FACILITY											X	X	X	
	TEACHING BEHAVIOR											X	X	X	
MATERIALS	NATIONALIZATION OF PROGRAM		X	X								X	X	X	
	PREREQUISITE CONCEPTS											X	X	X	
	BRASSERIE DING	X	X	X				X				X	X	X	
	PERSONAL HYGIENE										X	X	X	X	
	FOOD PREPARATION										X	X	X	X	

Five different radio formats have been selected: radio spots (30- and 60-second spots, a special weekly program called "The Voice of Health," regular news broadcasts, public service announcements and a game show. Visual materials have been divided into two sub-groups: those designed for mass distribution, such as posters, a calendar, and a photo-novel, and those support materials for the training sessions, including a flip-chart and a treatment poster. Finally, the face-to-face training has been divided into three areas. The first provides direct training of medical professionals (doctors, nurses and auxiliary nurses) through structured seminars, the second is training performed by these medical professionals to guardianes and midwives who distribute packets, the third is training by the guardianes and midwives to rural mothers who use the packets.

The basic strategy is to continue to use radio to reach those members of the target audience who are illiterate or located in isolated areas. Message content for radio has been selected according to the message content to be emphasized for the target group. Consequently, radio will be used to teach the core treatment therapy to rural mothers. Radio will not be the only source of information for rural mothers, but radio will constitute the minimal treatment input many rural mothers receive.

Some media will be used to disseminate only a few messages. Posters, for example, will not be used this year to teach procurement, but rather will focus on ORT administration and when to seek help (signs of dehydration). A photonovel will teach

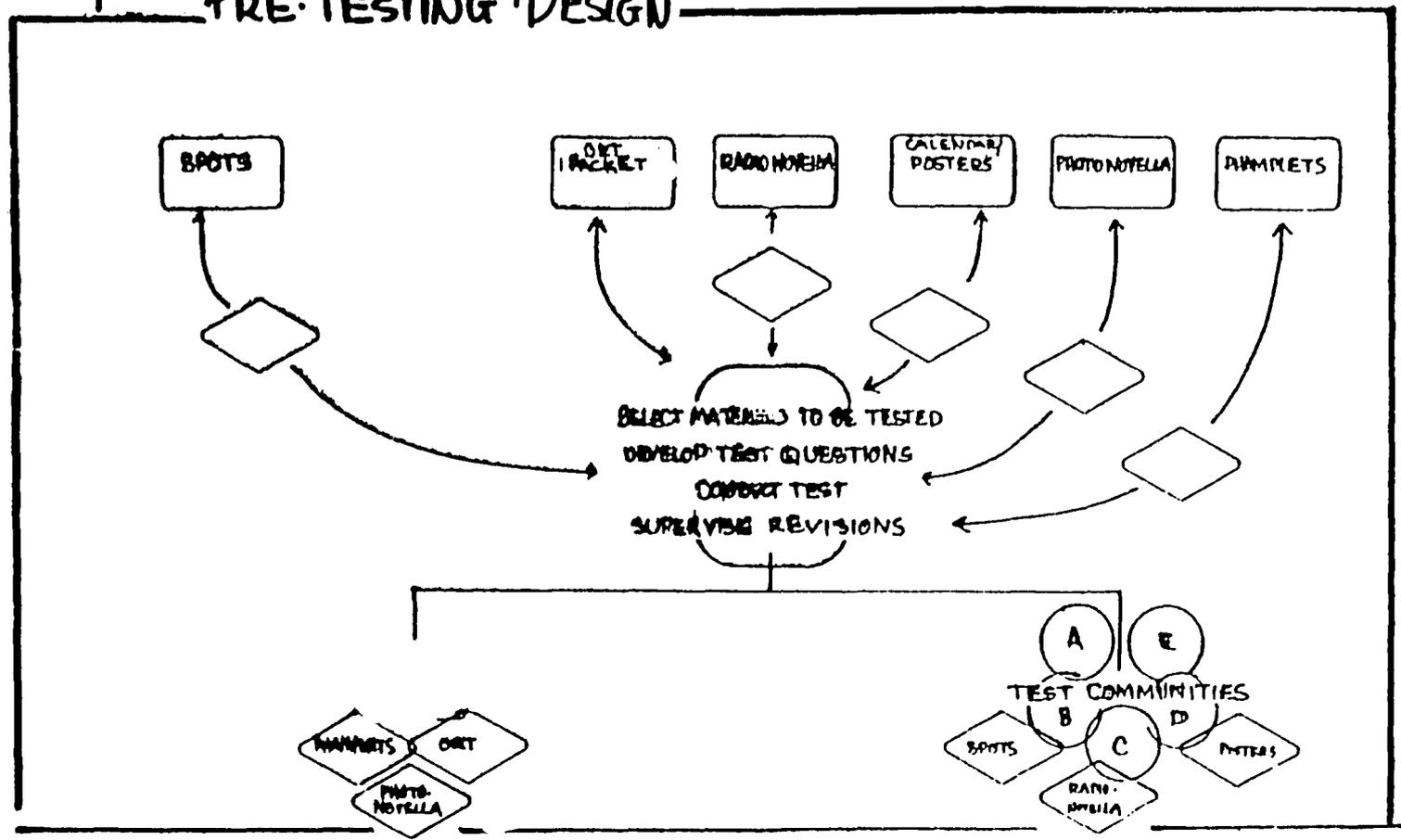
school children the signs of dehydration and how to alert their mothers to seek help. A calendar, chosen because of its popularity among rural people, will be awarded to mothers who breast-feed their children for an extended time, and will promote messages which promote breast-feeding. These few examples illustrate how the campaign has been integrated and targeted to specific groups and around specific message concepts.

The project will continue to rely on a systematic materials development process, stressing materials testing and revision. Because broadcast and print materials for rural mothers play such an important role in the overall success of the campaign, priority will be given to testing these materials. Pretesting of draft materials (audiotapes of radio programs and visual mock-ups of print materials) for this audience will be conducted in rural villages. Pretesting will continue to control for access to a municipal capital, to ensure getting a representative sample of the audience.

Not all materials will be pretested. Selected formats which provide representative samples of message approaches will be tested first. Critical questions related to each material will be developed before each test used to guide the interviewers. Materials will be chosen for testing based on their novelty and complexity; the more novel or the more complex, the more testing.

Testing will not go on throughout the campaign. Heavy pretesting will be concentrated during the two months prior to the initiation of each campaign phase, but selected pretesting will go on during each campaign phase as well. Graph #4 provides a schematic description of the proposed pretesting for the campaign.

GRAPH #4 PRE-TESTING DESIGN



Production of both broadcast and print materials will be contracted to private, commercial firms in Honduras. Radio production will be done at local studios under the direction of project staff.

Graphic materials will be printed in the commercial sector, relying on MOH facilities when they are available. All work will be coordinated by the project staff and local MOH counterparts. The production teams will participate in pretesting phases to assure that program producers hear rural audience reactions to their pieces first hand. Special care will be taken to prepare the production people for this new role and help reduce their resistance to perceived interference with their "artistic" judgments.

Special attention will be given to training MOH counterparts in how to manage and supervise a media campaign of this nature. This is compatible with the MOH's own operating style and consistent with their present approach to media production. The MOH does not, for example, contemplate establishment of an internal production unit. The health education unit's future responsibility will be campaign design, selection and supervision of contract personnel, and coordination of campaign elements.

The following paragraphs provide details on the instructional materials.

I. Radio

During this year, as in the first campaign year, Dr. Salustiano will be used as the basic source of technical information about ORT. The Formative Evaluations showed that he has been converted into a credible authority on childcare. He also helps give the campaign the planned serious tone, promoting ORT as a new scientific treatment better than simple home treatments. The LITROSOL jingle ("LITROSOL, the salvation from dehydration") will also continue to be used at the beginning of each spot about the product. The two songs, one on dehydration and one on breast-feeding will also be re-broadcast, immediately followed by different spoken treatment messages. These elements will help give the radio campaign needed continuity over the two years.

The project will use one national radio station, HRN, to carry the campaign. A second national radio station, Radio America, will be used only during the three months of Phase IV coinciding with the rainy season. Regional radio stations will be cut from four to three stations to help stretch the limited resources. Regional radio stations are Radio Oriental and Radio Latina in Danli and Radio El Paraiso in El Paraiso.

The six formats to be used, 30- and 60-second spots, a 15-minute weekly program called "The Voice of Health," public service announcements, news stories and a game show, are discussed below.

a. Spots

New spots during the treatment phase will address the problems reported in the Formative Evaluations. These messages include:

- USE LITROSOL WITH OTHER MEDICINES. (The Formative Evaluation showed that many mothers would not use LITROSOL while they were giving other medicines.)
- USE LITROSOL FOR EVERY CASE OF INFANT DIARRHEA. (The Formative Evaluation showed that mothers used LITROSOL only during "light" cases of diarrhea, but

used other treatments when they considered the episode to be more serious.)

- USE LITROSOL ALL OF THE TIME DURING THE DIARRHEAL EPISODE. (The Formative Evaluation showed that many mothers used LITROSOL only for one or two days and then switched to another treatment if the diarrhea hadn't stopped.)

The other messages of the treatment phase include:

- Information on signs of dehydration which signal that the mother should seek professional help. This emphasis is being given to try to make up for the fewer number of packets available.
- THREE SODA BOTTLES EQUAL ONE LITER. This message from the first year will be repeated based on the findings of the Formative Evaluation in February that the retention of this essential message was not as high as necessary.
- MIX ALL OF THE CONTENTS OF ONE PACKET IN ONE LITER OF WATER. The Formative Evaluation showed that many mothers were only mixing part of the packet in part of a liter in order to conserve their supply of LITROSOL.

Messages for spots of the prevention phase will be defined with the Breast-feeding Committee.

b. Fifteen-minute radio program

"THE VOICE OF HEALTH" will be broadcast weekly on one national radio station and two local radio stations. The goals of the program are to support and stimulate the guardianes and midwives who distribute LITROSOL as well as reinforce the technical training in both treatment and prevention messages. The major personalities of the program are Dr. Salustino, Don Martin, a young energetic Guardian, and Dona Chela, an elder, more traditional, but enthusiastic midwife.

c. Public service announcements

The Project will attempt to take advantage of the free public service announcements given daily on both national and local radio. For example, the date and locale of monthly guardian meetings will be announced on national radio, mentioning the fact that these meetings are more important during the rainy season months when so many children die from dehydration.

d. News stories

An attempt will also be made this year to release more news stories to the national radio stations.

e. Game show

One local radio station has a local game show in which contestants win prizes by answering questions. The project will give prizes of LITROSOL tee-shirts and

key-chains and, infrequently, a trip to Tegucigalpa for the correct answer of technical questions about treatment and prevention messages. For example, a listener will win a LITROSOL tee-shirt by correctly answering the question "What should you feed a child who has diarrhea?"

Additionally, one local radio station has requested the project's coordination with their Sunday soccer broadcast. LITROSOL will be one of the sponsors of the broadcast and the project will also provide LITROSOL tee-shirts for one of the rural teams playing in the league.

It should be noted that the project will not implement the proposed MOTHER-OF-THE-WEEK program due to limited time and resources; in addition, it is unlikely that the Ministry would ever be able to implement a program even remotely similar. It was decided therefore to use the limited project and Ministry resources to develop the 15-minute program which the Ministry would be able to absorb and continue to utilize to teach about various other health problems.

2. Graphics

a. Treatment graphics

This year's production of graphic materials will be concentrated in the same areas as last year, treatment and prevention, with emphasis once again on treatment. The selection of the material to be produced or reprinted was made by the project and the Diarrhea Control Program's (DCP) executive committee, based on the observations and evaluation results of the materials from the first year. The executive committee has asked the project to help the Program with the reprinting and production of new material.

As reported in the Formative Evaluation, the poster "Signs of Dehydration" was elected by the guardianes and midwives as being the one that helped them most in teaching mothers. DCP has decided it should be reprinted and distributed on a national scale.

The flyer (hoja-paquete) used during the first year has been revised and will be produced for the second year. The MOH has also decided to print this for use on a national scale and the initial printing, supervised by the project, will be approximately 400,000 flyers.

A new poster will be produced in the second year to be used in conjunction with the flyer and the Signs of Dehydration poster. The new poster is an enlargement of the face of the flyer which carries information on mixing and administration of LITROSOL. The decision to print the new poster was based on the usefulness of the "Signs of Dehydration" poster. With the two posters the guardian or midwife will have a complete visual display to use while teaching mothers about ORT and the mixing and administration of LITROSOL.

A new set of LITROSOL flags will be printed so that mothers will be able to recognize the new guardianes and midwives trained in ORT. The DCP committee, in voting for a uniform way to identify those houses in each village that have LITROSOL distributors, chose the flag as an excellent visual symbol, and thus it will be distributed not only in Health Region I, but throughout the country.

The DCP committee has also asked the project to help them to develop a graphic translation of the "Normas del Guardian en Hidratacion Oral." This is a MOH publication which presents the norms a guardian/midwife should follow in the treatment of diarrhea

cases with the use of O.S. salts. The MOH presentation of the norms is quite formal and rigid. The project hopes to design a graphic presentation which will simplify these concepts. The graphic presentation would follow the sequence of practical application.

An extensive 17 page-flip chart on dehydration and diarrheal disease control is being developed to aid in the training of guardianes/midwives. The contents of the flip chart were presented to the DCP by the project and Region I nurses and has now been approved by the Committee. The Chart will be made from the same cloth used for the LITROSOL flag and printed with waterproof paint. It will be printed in a very large format so that 10-15 guardianes or midwives can easily see the letters and drawings from a distance of two to four meters, and it is designed to be understood by those guardianes/midwives who do not read proficiently. The flip chart is divided into three sections; the first one presents definitions of diarrhea and dehydration with several examples to illustrate the latter. The second section contains information on the use of LITROSOL which includes a step-by-step visual presentation of the mixing and administration behaviors and signs to look for in the child which indicate a positive effect from LITROSOL. The third section summarizes the most salient of diarrhea prevention behaviors including personal and environmental hygiene, breast-feeding and boiling water. All areas nurses in each Health Region will receive a flip chart, creating a uniform source of information for the guardianes and midwives.

The same flip chart is scheduled to be replicated to a desk size calendar for all the auxiliary nurses of the nation. In this manner, mothers and guardianes will be taught from the same graphic presentation, with the only difference being size, thus ensuring that both audiences receive the same basic information.

The graphic which will be used most frequently to publicize the name and use of LITROSOL is the poster which illustrates a father pouring LITROSOL into a cup while the mother gives the solution to their child with a spoon. At the bottom, the poster tells that LITROSOL can prevent a child dying from dehydration. Over 30,000 copies of the poster will be printed and distributed on a national scale.

As planned last year, an educational photonovel will be produced this year. The photonovel will be directed towards the children of reading age in the rural schools of Region I. The photonovel will contain a dramatic story in which a ten-year old boy detects visible signs for dehydration present in his nine-month old sister. He warns his mother, who in turn is distracted by an emergency call. Finally, she goes to the guardian who confirms the dehydration and sends her to the Health Center after first preparing a liter of LITROSOL so that she can give it to the child on the way. The abstract content of the photonovel is very simple: the signs of dehydration that should be learned by the boy at the school. A guide-sheet for the teacher on how to use the photonovel will be supplied with the pamphlets. The distribution of this material, once printed, will be through the existing MOH distribution system and the formal material distribution system of the Ministry of Education with assistance from the project. It is hoped that by mid-year the majority of the photonovels will be out in the field.

b. Prevention graphics

As previously described, the prevention behaviors for the second year will focus on the issues of prolonged breast-feeding and breast-feeding during bouts of diarrhea. The actual messages will be developed in accordance with an official policy to be set forth through the Maternal-Infant Division of the MOH. Until this policy is clearly delineated the Project cannot produce most materials. Nevertheless, the project has scheduled the production of a calendar for distribution to rural homes. During the

Developmental Investigation it was discovered that a calendar is one of the few graphic materials present in many rural homes; it is highly cherished and often considered the "living room picture." The calendar designed by the project will contain two calendar years so that the use of it will be assured for a longer period of time. On each calendar month there will be a message printed that will coincide either with a treatment behavior (especially during the rainy season) or a prevention behavior. The back-up photograph will be a mother nursing a healthy looking infant.

The flip chart mentioned in the Treatment Graphic section above has a prevention component that will be emphasized during the training sessions. The same messages are supposed to be given to the mothers by the auxiliary nurses and guardianes/midwives.

The Water and Sanitation Component of the MM&HP Project has designed a comic book starring a drop of water that explains the germ theory of unboiled water to a small girl. This material may be reproduced and distributed to schools along with the photo-novel. The content is basically a prevention behavior, boiling water, which is consistent with the prevention behaviors advocated by the flip chart.

There may also be a possibility to print a prevention behavior poster corresponding to the final behaviors adopted by the Infant-Maternal Division.

F. TRAINING

The fourth phase of the campaign will include an extensive training component. Last year showed that training of as many packet distributors as possible before the peak diarrheal season was critical to the program.

The training is divided into different components according to the audience to which it is directed. The design is based on the findings of the Formative Evaluations of September 1981 and February 1982.

The training is divided into three sections: (1) training and re-training of both regional and national personnel directly by project staff, (2) re-training of community health volunteers by the auxiliary nurses and (3) training of new community health volunteers by the regional staff and to a lesser extent by project staff.

Project staff will be directly re-training regional auxiliary nurses, re-orienting area nurses in improvements in community personnel training, and assisting the DCP in training of MOH and other health professionals in other regions.

The auxiliary nurse re-training will include the following:

- Treatment and behavior messages. As outlined in the Formative Evaluation, there is a need to emphasize messages addressing the problems reported in the mixing administration of LITROSOL. These include confusing the liter bottle measure, saving part of the content of the packet, adding other elements such as sugar to the mixture, stopping the administration of LITROSOL after two days, and continued feeding during diarrhea.
- Treatment of dehydration in a fixed facility. Training will review the basic steps of ORT in the clinic using the Oral Rehydration Process Poster which was designed and used in training during the first phase last year. Practical exercises will be emphasized to review the step-

by-step process which includes weighing the child and calculating the amount of oral solution to be given over the first four-hour period and the amount of water over the subsequent two-hour period.

How to re-train the community health personnel. Training will be provided in re-training the guardianes and midwives originally trained in 1981 to distribute LITROSOL. The auxiliary nurses will be asked to use the monthly meeting of April or May to re-orient their community personnel to ORT and distribute the bags of 100 packets designated for these personnel. During this meeting the auxiliary nurse will:

- * Emphasize that the rainy season months are the most important months to treat children with diarrhea and that it is important to emphasize the use of LITROSOL during these months
- * Review the signs of dehydration using the poster and emphasizing how the guardian should teach the mother
- * Review the proper use of the educational flyer using a socio-drama to help teach
- * Ask the guardian or midwife to call a meeting of their neighborhood in which they inform the community of the dangers of dehydration caused by diarrhea during the rainy season months, inform the community that they have packets of LITROSOL and teach the signs of dehydration
- * Ask the guardian or midwife to put up the posters in their communities
- * Inform the guardian about the weekly radio program designed especially for them

Project staff will also orient the regional area nurses who are in charge of training new community health workers in 1982. The orientation will emphasize correction of the problem areas identified in the Formative Evaluations. These corrections will then be incorporated into the curriculum of the 1982 training sessions. (See Appendix B for the training of guardianes and midwives scheduled by the Area Nurses.) These area nurses will carry out the bulk of training of new guardianes and midwives; however, to make up for the cut-back in distribution agents (the project will not use village mayors) the project will be directly training some guardianes and midwives in the area of the region with the least amount of community health workers. This area, although one of the most densely populated areas in the region, has less than half the community health workers of any other area. This accelerated training means utilizing extra health promoters to help identify new community health workers and organize the training sessions. The training will be implemented by project staff within the first two months of the rainy season.

The project staff will also be doing direct training of national MOH staff and other health professionals in coordination with the new National Diarrheal Control Program (see the section on the institutionalization of the Project below for more detail).

G. DISSEMINATION SYSTEM

This section of the Implementation Plan describes the three components of the dissemination system: the distribution system for oral rehydration packets, the distribution of print materials and the radio broadcast plan. Each component continues to draw upon existing resources, but recognizes that direct project intervention will be necessary to ensure that the dissemination system is actually working. Institutionalization of the dissemination system is a major goal of the project this year and the systems have been redesigned to incorporate them as much as possible into the existing MOH systems. However, distribution of medicines and materials remains one of the most difficult problems of the MOH. A new AID logistics project will hopefully improve the system in the next two years.

I. Distribution of ORT Packets

The major goal of this year's distribution of ORT packets is to institutionalize the distribution so that after the project is finished the Region will continue to be able to make LITROSOL available in the rural areas. At the same time, the project has been incorporated into the National Diarrhea Control Program and while remaining an innovative pilot project in terms of educational materials, it has had to coordinate distribution with the system structured by the National Program. In view of this, the project, has made two major changes in distribution policy.

First, as much as possible, all packets will be distributed through the Region's distribution system rather than directly by the project. LITROSOL will continue to be distributed to the Health Centers in boxes of 400 packets. Three hundred of the packets will be wrapped in the educational flyer to be given to mothers for home use and one hundred of the packets without the educational flyer will be for use by the auxiliary nurse in the Health Center. The 219 guardianes and 354 midwives trained in 1981 will receive a bag of 100 packets wrapped in educational flyers before the rainy season starts in May/June and new guardianes and midwives trained in 1982 will receive a bag of 100 packets during their training course.

In compliance with the policy outlined by the DCP, the Region will be implementing a distribution system whereby an auxiliary nurse requests the number of packets needed by the Health Center and the community health personnel (guardianes and midwives) for a three-month period.

The project will continue to support and encourage this system to ensure a complete institutionalization of the distribution system. The project will work closely with the Health Region personnel to monitor the distribution through control forms and bi-monthly telegrams to ensure that all Health Centers have sufficient packets to implement the program. In the case of an emergency, the project would directly distribute packets via local transport.

The second major change in the distribution of ORT packets is that village mayors will no longer be used as distribution points; packets will be distributed only through MOH personnel, Health Centers, guardianes and midwives. Although this will reduce the number of packets available in the Region by 45,000, the Regional and Ministry staff were adamant that the project not continue utilizing personnel to distribute packets that the Ministry could not support or absorb into their system after the life of the project.

It is hoped that the Stanford Evaluation will be able to show what difference, if any, the two distribution systems have on morbidity and mortality.

In order to offset the reduction in the number of packets in the Region, the Project will use radio to emphasize when the mother must seek help at the Health Center. At the same time, the project is in contact with a commercial supplier who is exploring the possibility of marketing pre-packaged salts to rural villages. The supplier originally became interested in producing a similar product due to the radio campaign and actually contacted the radio announcer who plays the role of Dr. Salustiano to mount their promotion. It is likely that this product will be available in the rural areas within the year.

2. Distribution of Print Materials

Print materials are divided into three categories: (1) those materials which will be mass distributed to rural communities (posters, calendars, and photonovels), (2) those materials used in training courses such as flip charts and training guides, and (3) special materials including technical articles, news items, and flyers, mailed to key members of the medical community.

The first group of materials, those designed for mass distribution, will provide the project an opportunity to continue experimenting with innovative ways of distributing materials. The bulk of the materials will be distributed by the Region to the Health Centers, guardianes, midwives and health promoters; some materials will be distributed by the Region's transport, and others directly to the personnel during bi-monthly meetings. New guardianes and midwives will receive materials in their training courses. Some materials will be distributed through other governmental agencies and institutions present in the Region. Bus owners will also be approached and requested to participate in the program by placing posters in their buses and in the bus depots. Some posters will also be distributed by the regional radio stations. Calendars will be distributed principally through the Health Centers, but will also be distributed by the local radio stations. The photonovel and comic book will provide the project the opportunity to experiment in collaborating with and distributing through the formal education system of the Ministry of Health. Some photonovels and comic books will also be distributed through the Health Centers and radio stations.

The second group of materials, those used in training courses, will be distributed directly to health personnel in seminars or during monthly meetings.

The third group of materials will continue to be mailed to medical professionals, although no real impact was felt from their distribution last year. The Project will also coordinate with the National Diarrhea Control Program in distributing selected articles and technical pamphlets during the national training courses.

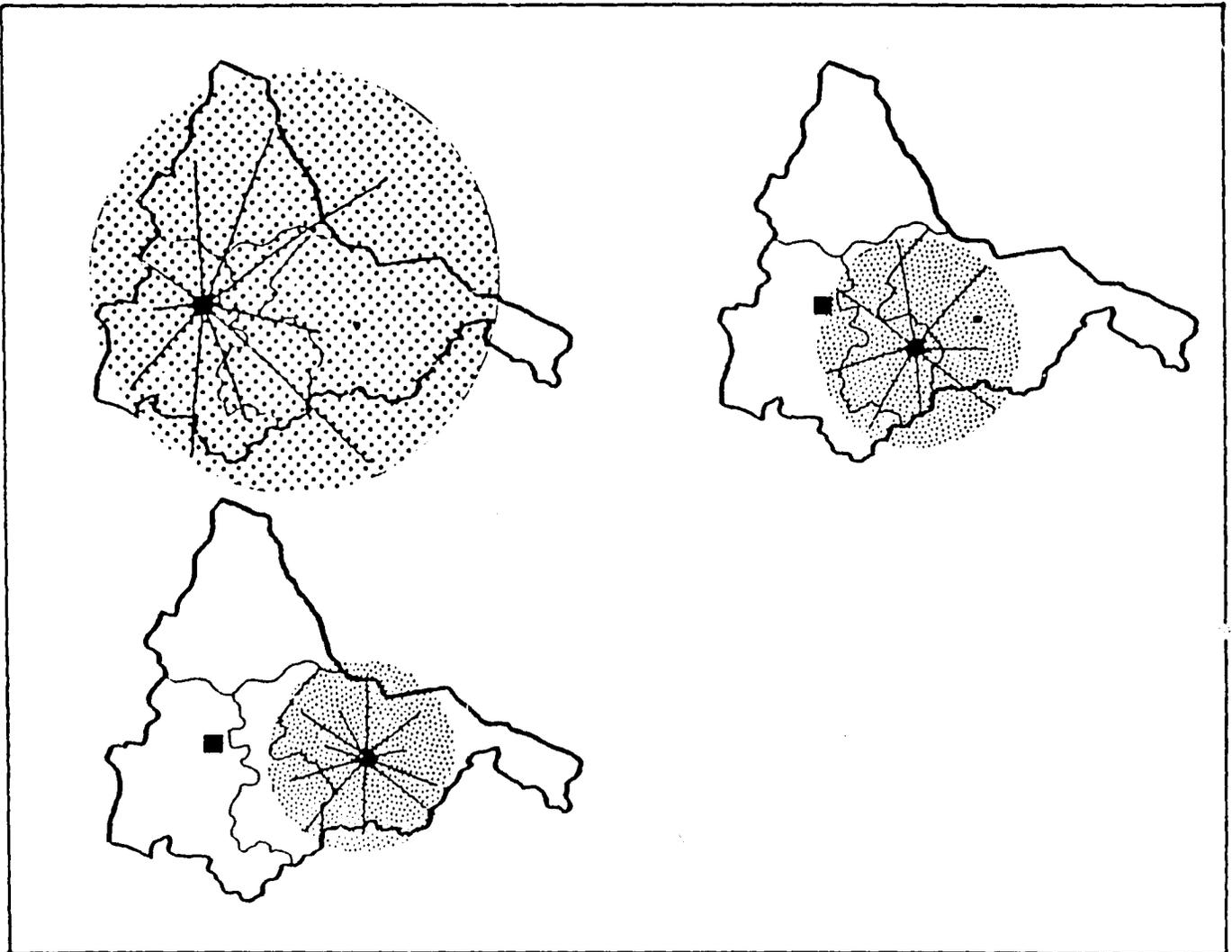
3. Broadcast Schedule

The broadcast schedule defines the relationship between the three separate elements: (1) the kinds of programs broadcast, (2) the stations on which each program is broadcast, and (3) the frequency with which each program is broadcast. This year the stations were selected as the results of various formative evaluations of radio impact: the two large formative evaluations in 1981 and 1982 and several smaller ones carried out during pretesting of various materials. This year the national stations the project will use have been cut from three to two, HRN and Radio America. The regional stations will be cut from four to three, using Radio Oriental, Radio Latina and Radio El Paraiso.

These decisions were made based not only on listenership studies, but more importantly, on mothers' reports of where they had actually heard the project's messages.

Graph #5 shows the estimated broadcast range of the national versus the regional stations, and thus the broadcast area for IV-V. It is clear from this graph that the three national stations reach areas outside the target region. Because the MOH is implementing a national ORT program, it is not considered necessary to restrict broadcast of ORT information to the MM&HP target area. The regional stations are limited to the southern part of the region alone. The different broadcast areas of national and regional stations will permit some messages to be broadcast everywhere while others can be selectively targeted to the southern area alone.

GRAPH #5 REGIONAL and NATIONAL BROADCAST RANGES



A detailed broadcast schedule for message distribution has been developed for the fourth and fifth phases, and is presented below as Figure 6. One strategy to help reduce broadcast costs is to concentrate on broadcasts during the peak diarrhea season. From May through August saturation broadcasting will be used. During the rainy months (September - December) support broadcasting will be used.

	<u>PHASE IV (MAY 1 - AUG 31)</u> SATURATION BROADCASTING	<u>PHASE IV (SEPT) and PHASE V</u> SUPPORT BROADCASTING
NATIONAL RADIO STATIONS	<u>HRN</u> <ul style="list-style-type: none"> • 11 radio spots per day (240/month) • 1 15-min radio program per week (4/month) <u>RADIO AMERICA</u> <ul style="list-style-type: none"> • 4 radio spots per day (88/month) • 1 song per day (24/ month) 	<u>HRN</u> <ul style="list-style-type: none"> • 7 radio spots per day • 1 15-min radio program per week
REGIONAL RADIO STATIONS	<u>RADIO ORIENTAL-DANLI</u> <ul style="list-style-type: none"> • 20 radio spots per day (480/month) • 5 songs per day (120/month) • 1 15-min radio program per week <u>RADIO LATINA-DANLI</u> <ul style="list-style-type: none"> • 20 radio spots per day (480/month) • 5 songs per day (120/month) • 1 15-min radio program per week • 3 awards on the same game show per week (12/month) 	<u>RADIO ORIENTAL-DANLI</u> <ul style="list-style-type: none"> • 20 radio spots per day (480/month) • 5 songs per day (120/ month) • 1 15-min radio program per week <u>RADIO LATINA-DANLI</u> <ul style="list-style-type: none"> • 20 radio spots per day (480/month) • 5 songs per day (120/month) • 1 15-min radio program per week • 3 awards on the same game show per week (12/month) <u>RADIO EL PARAISO-EL PARAISO</u> <ul style="list-style-type: none"> • 20 spots per day • 5 songs per day • 1 15-min program per week

The rationale for the intensification of radio during the peak diarrhea season and the reduction of the number of national radio stations this year is cost. Spots during prime time on national radio are \$13.00 per spot while spots on prime time of local radio are \$.16 cents per spot. However, formative evaluations show that prime time on national radio is essential to reach the target audience, so it cannot be cut all altogether.

During the fourth phase, the project will experiment with phased message distribution. Two spots and the song will serve as the core of the treatment messages. The spot from last year on three bottles of fresco making a liter will only be broadcast the first month to reinforce what mothers have already heard. Signs of dehydration will be heavily emphasized by two different spots during four months of the campaign. The distribution of messages during Phase IV is summarized in the chart below.

Graph #7
PROGRAMMING OF THE RADIO SPOTS: FOURTH PHASE

THEME	MAY	JUNE	JULY	AUGUST	SEPT
1. USE LITROSOL DURING ALL EPISODES OF DIARRHEA	██████████	██████████	██████████	██████████	██████████
2. USE LITROSOL ALL OF THE TIME DURING THE INFANTS DIARRHEA DIARRHEAL EPISODE	██████████	██████████	██████████	██████████	██████████
3. SONG WITH COMBINATION OF ABOVE MESSAGES	██████████	██████████	██████████	██████████	██████████
4. SIGNS OF DEHYDRATION SPOT A		██████████	██████████		
SPOT B				██████████	
5. THREE FRESCO BOTTLES MAKE A LITER	██████████				
6. USE LITROSOL WITH OTHER MEDICINES		██████████		██████████	
7. USE ALL OF THE PACKET IN ONE FULL LITER OF WATER			██████████		██████████

H. MONITORING OF CAMPAIGN COMPONENTS

Regular information on program effectiveness proved essential to the overall success of the program last year and will continue to be emphasized this year. Monitoring information helped ensure the proper distribution of essential elements such as radio broadcasts, print materials and packets and also provided qualitative information on how these materials are being received.

Regular monitoring will be carried out through four basic activities: (1) the Radio Monitoring System, (2) the Materials Distribution Control System, (3) continued pretesting and focus group analysis, and (4) two small, formal formative evaluations in May and August. Each monitoring system is discussed in more detail below.

Monitoring of the radio broadcasts proved essential in the first year of the project. Neither national nor regional radio stations were accustomed to being monitored and the control showed that at one time up to 25% of the spots were not being aired. The national radio stations have responded well to Project complaints of spots not being aired and various times spots have been recuperated. Unfortunately, all of the regional radio stations (with the highest rural audience) are owned by the same person, and he has not responded to project claims of unaired spots. This year the project will implement a new monitoring system of regional radio stations whereby 15 percent of the hours during which spots are aired will actually be taped weekly. The tapes will then substantiate any claims that the stations are not living up to their contractual responsibilities.

In addition, the project will continue to work more closely with the disc jockeys of the regional stations, providing them with positive reinforcement for campaign participation. During the third phase a seminar was held in which the disc jockeys were taught basic treatment and prevention messages and informed about the campaign and the importance of their role. Four times this year the project will give an award to the station and disc jockey who best promotes the campaign (i.e., puts the spots on the air at the times they are scheduled). Smaller awards, such as LITROSOL key chains and tee-shirts, will also be given to the other disc jockeys to encourage their participation. The awards will be given in special presentations which will be broadcast on the three local radio stations.

The Materials Distribution Control System will continue to be supervised by the MOH audiovisual coordinator but with an increasing emphasis on regional institution-ization. The system will continue to include two sources of information: (1) records of materials distributed during seminars, and the Region, and (2) responses to eight bi-monthly cables sent to randomly selected sites regarding present availability of materials. Health Centers will also continue to be asked to report on current stocks of selected materials.

Continued pretesting and focus group analysis will continue to give qualitative feedback about campaign progress.

Difficulty in the turn-around of Stanford University's evaluation data due to complications in the computer system has forced the project to implement most formal formative evaluations than previously planned in order to more accurately measure the impact of the various aspects of the campaign. These formative evaluations have proven invaluable to the project staff and have served as a basis for all of the major decisions of this year's planning. Two formative evaluations are planned for this year. A small one in May will evaluate the role of graphics and radio before the materials are produced on a national level by the National Diarrhea Control Program, and a larger one in August will evaluate all of the elements of the third and fourth phases and orient the project for the last phase.

SECTION III
INSTITUTIONALIZATION

In addition to the operational objective of developing and conducting an effective public education campaign on the prevention and treatment of acute infant diarrhea, the MM&HP program has the explicit responsibility of leaving within the Ministry of Health an on-going capacity to utilize systematic communication planning procedures to address future health problems of significance. It was conceived that this goal would be achieved in three ways:

1. Extensive in-service training of three counterparts within the Ministry's Health Education Unit, one each in radio campaign design, graphic material development, and behavioral training technology.
2. Widespread contact with all levels of MOH personnel to inform and involve them in the project's continued development and implementation.
3. Transferral of all technical and substantive decision-making to MOH authorities.

Several indicators of success were established initially to determine how well these goals were being met. These indicators include:

1. The presence of three full-time salaried professionals in the Health Education Unit with the aforementioned responsibilities and capacities.
2. The formation of a technical review committee plus regular meeting with all key MOH officials.
3. Verbal support expressed by MOH authorities for the program's principal operational tactics:
 - a. integrated instructional media
 - b. empirical development of instructional materials based upon audience needs
 - c. timely production and distribution of all materials
 - d. regular monitoring and modification as needed.
4. A budget structure which permits and supports:
 - a. adequate broadcast levels
 - b. materials testing and research
5. Serious planning toward or actual implementation of an expanded program of public education going beyond the resources provided by the MM&HP program.

Using these indicators as a basis for analysis the project presently has achieved the following:

1. 80% of one counterpart salary is being provided by the MOH. In addition the Ministry has requested that the project fund two additional people. The Ministry has energetically requested permission from the National Budget Authority to add three new positions but due to external financial factors beyond their control these requests have been rejected.
2. Three counterparts have been trained and are ready to accept positions with the Health Education Unit should the nation's financial situation permit the office to be expanded.
3. The MOH has formed a multi-divisional review panel to oversee all project activity. This panel has reviewed, modified when necessary, and approved all substantive project activities.
4. An excellent reputation within the Ministry. MOH officials have highly praised the project, particularly the integration of instructional media and the timely production and distribution of campaign materials, although key MOH officials continue to be skeptical about how much pre-program investigation and regular monitoring are necessary or affordable.
5. The MOH has provided budgetary support to the broadcast and materials development phase of the program gradually assuming a larger share of these costs than originally expected. This has been done largely by redirecting funds from other purposes, rather than by adding new money to the pre-program budgetary levels.
6. The MOH has formed a National Diarrheal Disease Control Unit whose primary responsibility is the expansion of the regional program to national scale. In this expansion reliance is being placed on the methodology and materials developed by the initial program.

Emphasis during the remaining year of the program as regards institutionalization will include:

1. Assisting the MOH to develop a plan for incorporating empirical program development efficiency within the overall operational structure, including defining who will be responsible and how much will be necessary.
2. Finding some means of utilizing the three individuals already trained in future programs.

APPENDIX A

ORIGINAL TREATMENT BEHAVIORS

- Cluster A: Diagnosis

1. Recognize that the child's stool pattern is abnormal.
2. Confirm that the following symptoms are present:**

<u>Infants</u>		<u>Child</u>
Watery stool	Loss of appetite	Listless (vomiting)
More than three displays a day and pale		

3. Confirm that severe dehydration is/is not present:

<u>Infants</u>	<u>Child</u>
Diarrhea and vomiting, and/or	Dry skin/mouth
Dry skin/mouth	Sunken eyes
Sunken eyes	Sunken fontanel
	Flacid skin
	Listlessness

4. If two is yes, and three is no, go on.
If two is yes, and three is yes, go to hospital/clinic, medical advice.
If two is no, and three is no, stop therapy, check again tomorrow.

- Cluster B: Acceptance Knowledge

1. Identify rehydration packet as medicine for dehydration, not diarrhea.
2. Identify rehydration packet as able to help restore appetite and activity of child, without stopping the watery stools or reducing the number of stools.
3. Identify purpose of rehydration medicines as replacing liquids which are important for activity and appetite.
4. Identify rehydration medicine as better than purge, starvation, and home remedies.
5. Identify cost of mixture in dollars (lempiras) and effort, and where available.
6. State why it is worth making the effort and expenditures.

** Distinction is made between infant and child diagnosis to ensure that infant rehydration is begun at an early stage to accommodate the young infant's tendency to dehydrate rapidly.

- Cluster C: Procurement Knowledge
 1. Name packet.
 2. Identify packet visually.
 3. Identify location(s) where packet can be obtained.
 4. Specify packet's cost.
 5. State that two packets should be purchased at a time.
 6. State how they will obtain packet.

- Cluster D: Mixing Ability
 1. Identify a vessel one liter in size (large guaro bottle).
 2. State that vessel must be washed and free from foreign matter.
 3. Fill one liter container to the top with as much clean water as possible.
 4. Add only the contents of one packet with minimal spillage.
 5. Open sal packet without spilling salts.
 6. Add nothing else to solution.
 7. Stir or shake.
 8. Identify dissolved solution.
 9. Do not boil the mixture.

- Cluster E: Administration
 1. Use a small spoon to give child/infant the entire one liter mixture little by little over the next 24 hour period.
 2. Give child/infant, particularly children who are only mildly dehydrated, at least five huacales (1/2 liter) of water or juice and breast-feed as much as child will take.
 3. If child/infant vomits, allow him to rest for a few minutes, and begin giving the medicine in small amounts, slowly.
 4. Feed the child agua de arroz, plowadas, atoles, as soon as his appetite returns. Do not withhold food.
 5. If diarrhea continues after first day, mix and give new solution for one more day, or until diarrhea stops.

- Cluster F: Seek External Help
 1. If diarrhea continue after two days, seek medical help.
 2. If vomiting continues more than five times a day, seek medical help.
 3. Give infant medicine during trip to clinic if possible.
- Cluster G: Recovery Behavior
 1. Feed child soft-boiled eggs each day for ten days after diarrhea stops and child's appetite returns.
 2. Give child more food after diarrhea than is normally given.
 3. Give child additional food for as many days as he had diarrhea.

APPENDIX B

TRAINING PLAN FOR COMMUNITY HEALTH WORKERS

Appendix B

CONSOLIDADO DE LA PROGRAMACION DE ADIESTRAMIENTOS A PERSONAL

COMUNITARIO PARA EL AÑO DE 1982 - REGION SANITARIA NO. 1

DIESTRAMIENTO A:	AREA DE SALUD	FECHA	LUGAR	NO. DE PARTIC.	RECURSO HUMANO	MATERIAL NECESARIO	CONSEJASIONES
Jardianes de Salud	No. 1, Danlí	MARZO 8-12	Villa Santa	16	Nidia Andrade	Cuadernos	
Jardianes de Salud	No. 1, Danlí	15-20	Potrerrillos	12	Edelma Umazor	Lápiz tinta	
Jardianes de Salud	No. 1, Danlí	22-27	Quda. Larga	6	Ma Cristina T.	Papel strasa	mas 2 aldeas de
Jardianes de Salud	No. 1, Danlí	29 -2 Abri.	Las Selvas	6	Nidia Andrade	Cartulina	Cesar Jacalean-
Arteras Empíricas	No. 3, F.M.	8 -13	Texiguat y Vado Ancho	27		Marcadores Rotafolio	Será en Texiguat
Jardianes de Salud	No. 3, F.M.	22-26	Tatumbia	7		Pizarra	
Jardianes de Salud	No. 4, Tal.	8 -13	Orica	12		Papelaria para información de maniqués.	
Jardianes de Salud	No. 1, Danlí	ABRIL 19-24	El Olingo	9	Ma Cristina T.		mas 3 aldeas de
Arteras Empíricas	No. 2, F.M.	12 -17	Ville S. Fraco.	8	Belén Nuñez	Manual de P.E.	Cesar de Las
Jardianes de Salud	No. 3, F.M.	19 -24	Cofradía	5	Eda de H.H.	A. y G. de S.	mas.
Jardianes de Salud	No. 4, Talang.	19 -24	Miralda	6	Rosario de Paz	Sacapunta	
Jardianes de Salud	No. 1, Danlí	MAYO 17-22	San Isidro	9	Ma Cristina T.	Lápiz grafito	
Jardianes de Salud	No. 2, F.M.	10-15	Cantarranas	12	Belén Nuñez	Maskin Tape	
representante de S.	No. 2, F.M.	10-15	Cantarranas	15	Promotor	Chinches	
Jardianes de Salud	No. 3, F.M.	17-21	Vado Ancho	7		Papel bond tamaño grande	
Jardianes de Salud	No. 3, F.M.	17-21	Texiguat	5	Eda de H.H.		
Jardianes de Salud	No. 1, Danlí	JUNIO 7 al 12	Teupasenti	15	Ma Cristina T.		
Arteras Empíricas	No. 1, Danlí	21 -26	Las Selvas	12	Edelma U.		
Arteras Empíricas	No. 1, Danlí	14 -19	CHA, Danlí	8	Leopoldina R.		
Jardianes de Salud	No. 2, F.M.	21 -26	S. Ant. F.	16	Belén Nuñez		
representante de S.	No. 2, F.M.	21 -26	S. Ant. F.	13	Promotor		
Jardianes de Salud	No. 4, Talanga	14 -19	Vallecillos y T. Queda.	9	Rosario de Paz		
Jardianes de Salud	No. 1, Danlí	JULIO 12 -17	Cifuentes	10	Nidia Andrade		
Jardianes de Salud	No. 3, F.M.	5 -10	Lepaterique	22	Eda de H.H.		
Jardianes de Salud	No. 3, F.M.	26 -31	San Matias	5	Nelly E. Mejia		
Jardianes de Salud	No. 4, Talanga	19 -24	Talanga	15	Eda H.H. Rosario de Paz.		

PROGRAMACION DE ADIESTRAMIENTOS DEL SISTEMA COMUNITARIO

AREA DE SALUD NO. 1 - 10. SEMESTRE DEL AÑO 1982

NO.	LUGAR DEL ADIESTRAMIENTO	GRUPO	NO.	FECHA	RESPONSABLES	OBSERVACIONES
1	Cesar de Villa Santa	G.S.	18	8-III-15	Lic. Nidia Andrade E.P. Edelma Umanzor	
2	Cesar de Potrerillos	G.S.	12	15-19-III	Lic. Ma Cristina Tanez	mas 2 aldeas del Cesar Jacaleapa
3	Cesar de Las Selvas	G.S.	6	29-III-IV	E.P. Edelma Umanzor	
4	Cesar de Quebrada Larga	G.S.	6	22-3-26	Lic. Nidia Andrade	
5	Cesar El Olingo	G.S.	9	19-IV-23	Lic. Ma Cristina Tanez	mas 3 aldeas del Cesar Las Animas
6	Cesar San Isidro	G.S.	9	17-V-21	Lic. Ma Cristina Tanez	
7	Cesamo Teupasenti	G.S.	15	7-VI-11	Lic. Ma Cristina Tanez E.P. Edelma Umanzor	
B-2 8	Cesar Las Selvas	P.E.	—	21-VI-25	E.P. Edelma Umanzor	
9	CHA DANLI	P.E.	8	14-VI-18	Leopoldina Ramirez	