

Mass Media and Health Practices

IMPLEMENTATION

IMPLEMENTATION PLAN

HONDURAS

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ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.
1414 TWENTY-SECOND STREET, N.W., WASHINGTON, D.C. 20037
TELEPHONE: (202) 862-1900

MASS MEDIA & HEALTH PRACTICES

PROJECT IMPLEMENTATION

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IMPLEMENTATION PLAN

HONDURAS

Project Director

Dr. William A. Smith

Project Field Coordinators

Dr. Reynaldo Pareja
Ms. Elizabeth Booth

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GRAPHS AND CHARTS

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INTRODUCTION

This document is one of a series of reports prepared by the Academy for Educational Development under its Mass Media and Health Practices Project Contract with the Agency for International Development. It represents the results of a one year field investigation in Honduras and draws upon information detailed in several of the previous documents in this series. To avoid restating much of what has already been written, the author will make frequent references to several earlier documents in the series. 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>

CAMPAIGN SUMMARYI. 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.

II. COMMUNICATION OBJECTIVES

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

III. AUDIENCE DEFINITION

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

IV. COMMUNICATION STRATEGIES

- A. Teach the primary audience:
 1. To properly prepare and administer pre-packaged WHO formula, oral rehydration salts to:
 - a. infants, (less than a year) as soon as the child gets diarrhea, and
 - b. toddlers, (older than one year) as soon as the child loses 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 breastfeeding, 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 oral therapy.
 3. Rural schools teaching prevention measures.
 4. Regional health promoters distributing ORT packets.

V. 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.

VI. EXECUTION

TV, 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 TV for medical practitioners. Support materials including posters, photonovels/pamphlets, and mailings will supplement the broadcast media. Health worker training, including physicians, nurses, auxiliary nurses, and guardianes will be the primary vehicle for introducing oral therapy to the medical establishment.

SECTION I.

PROJECT OVERVIEW

A. PROJECT OBJECTIVES

On September 30, 1978, the Academy for Educational Development was contracted by the United States Agency for International Development (AID) to implement a five-year mass communication project. The project, which is a joint initiative of the Office of Education and Office of Health within the AID Development Support Bureau, seeks to develop a methodology for the application of mass communication to the prevention and treatment of acute infant diarrhea in the rural areas of two developing countries. The long-term development goal of the project is to strengthen the health education capacity of the cooperating ministries of health. The overall project is divided into three sequential phases: Phase One - a public education campaign in each of the two host countries using radio, graphic material, and face-to-face support; Phase Two - analysis of project results; and Phase Three - dissemination of those results to the world community of development communication professionals. Stanford University was contracted by AID to evaluate the project.

B. PROJECT ADMINISTRATION AND OPERATION

The field project in Honduras is a three-year portion of the overall project. Corresponding to Phase One, it is subdivided into two distinct activities: a nine month pre-program research activity and the actual execution, monitoring, and revision of the public education campaign itself. The project has modest financial resources to develop and produce the radio, graphic, and in-service training materials, and fund one-half of the radio broadcast costs. The Ministry of Health is funding three full-time counterparts, office space, and the remaining broadcast costs.

The Mass Media and Health Practices Project (MM&HP) is also providing two expatriate technical assistants to the Health Education Unit of the Ministry of Health (MOH) in Honduras. This unit has been expanded to include two specialists assigned full-time to the MM&HP Project. A third position assigned to the project has yet to be filled. These individuals coordinate project activity with several other MOH offices, including the Director General, Maternal Child Care, Training and Human Resource Development, Epidemiology, and Environmental Sanitation. A coordinating committee has been established to review project activities and to ensure that the project is consistent with the overall health priorities of the MOH.

The project operates in Health Region No. 1 of Honduras. This region was selected after careful study and provides a representative population of approximately 400,000 individuals.*

* Background information on the region is available in MM&HP Project Document #6.

C. PRINCIPAL COMPONENTS

The MM&HP Project has three principal components: the specific health problem; a defined set of basic instructional tools; and a systematic instructional development process. Each of these elements contributes to the overall organization of the health campaign and is consequently reflected in this implementation plan.

The health problem being addressed involves both prevention and treatment behaviors associated with acute infant diarrhea in primarily rural areas. The range of appropriate treatment behaviors is relatively small, and there remains a significant controversy among medical experts as to the exact way in which these few treatment alternatives should be promoted at the rural community level. The MM&HP Project will seek to reduce infant mortality by promoting pre-packaged, WHO formula, oral rehydration therapy through existing health facilities, primary health care workers, and home administration.*

Selecting prevention behaviors presents a somewhat different problem. There are so many potential sources of contamination in a rural community that the number of necessary intervention points is overwhelming. The problem is compounded by a general skepticism that health education alone is sufficient to convince rural people to make the kind and number of changes needed to produce any measurable reduction in diarrheal morbidity. Project staff have determined that prevention behaviors should be included however, because they provide an opportunity to investigate media's potential to affect behaviors which represent areas of special interest to the health community. Three clusters have been chosen: breastfeeding, food preparation, and personal hygiene. We believe that if the project is able to demonstrate that critical behaviors in each of these clusters have been changed by the program, even in the absence of any demonstrated reduction in diarrheal morbidity, the project will have made an important contribution to health education.

The basic instructional tools as defined in the project contract include radio combined with graphic materials and some face-to-face support of health workers and local opinion leaders. Radio will be emphasized because of its capacity to reach large audiences efficiently. In Honduras this emphasis is consistent with the existing rural communication system and the MOH's own health education priorities.

The instructional development process relies upon past experience in mass communication and combines systematic pre-program research with experience drawn from such fields as social marketing and behavioral analysis. This process rests upon a clear understanding of three principal areas: the behaviors to be promoted; the personal, family, and community context in which these behaviors are elicited; and the ability of the instructional tools to promote the widespread adoption of the selected behaviors.

* The full reasoning for this decision is discussed in MM&HP Project Document #8.

The working premise which makes these principles relevant is that prevention and treatment of infant diarrhea can be positively affected by altering the way in which rural people now behave. Improvement does not necessarily require significant new investments in health infrastructures such as water systems, latrines, or new health centers. This project is not attempting to install new mechanical technologies, nor promote sophisticated cognitive conceptualizations. Our task is to alter the likelihood of people doing things which are well within their capacities, but currently unlikely. The emphasis is on behavior. Attitudes, even those which may contribute to what people do, are of secondary interest.

From a behavioralist point of view, there are five circumstances which singly or in combination, account for absent behavior. First, necessary materials or implements like ORT packets may be unavailable. Second, prerequisite skills, discriminations, or knowledge may be lacking. For example, rural mothers may know that boiling water is good but not understand that it actually kills the parasites they fear. Third, there may be no incentives like immediate improvement in their child's health to engage in the behavior. Fourth, there may be incentives to engage in incompatible behavior like giving kaolin or purges. And fifth, there may be punishing consequences which discourage the desired pattern. A child may vomit, for example, or his diarrhea may actually appear to increase. An understanding of these factors is absolutely critical in the development of an effective instructional intervention.

Behavioral analysis also makes an important contribution to our understanding of how to change behavior patterns, whether it be altering an existing pattern, or creating a new one. Many health messages, for example, carry an implicit or explicit threat. This approach has been shown to be less effective than providing rewards to approximations of the desired behavior. Use of approximations require that we identify a relevant existing behavior to reinforce and may mean including a few behaviors in the instructional campaign which we know rural mothers are now doing correctly. Rather than telling mothers to stop bottle-feeding, we may want to reward mothers when they do breastfeed.

Another important point to emphasize is effective delivery of positive consequences or rewards. Behavior does not change unless rewards are actually applied to the desired behavior pattern or some reasonable approximation. It is not sufficient, for example, for nurses to tell outsiders how important it is that rural mothers be praised for administering ORT. We must be certain that the nurses are in fact praising mothers, and that the mothers perceive the nurse's action as praise or support. This project may be one of the first efforts to use mass communication primarily to support positive existing behaviors rather than extinguishing negative patterns or creating entirely new ones. Behavioral information in these areas was collected as part of a nine-month pre-program effort we called a developmental investigation.

Based upon an analysis of the medical problem (infant diarrhea) and the communication and instructional requirements of the media to be used, specific investigation topics were established as follows: (1) rural understanding of and response to diarrheal episodes in children under five; (2) general rural child care practices; (3) infant feeding patterns with special emphasis on breastfeeding; (4) home-based mixing trials of WHO oral therapy solution; (5) potential sources of bacterial contamination in rural homes; (6) existing distribution systems for commercial medicines; (7) health system outreach; (8) rural media habits and preferences; and (9) rural opinion leadership.

The nine-month investigation used four general strategies to collect information on each of these topics: the collection and analysis of existing information (statistical, anthropological, and anecdotal); individual interviews with 175 rural people; 62 focus group interviews with approximately 402 rural individuals; direct observation in 24 rural homes; visits to 5 rural clinics; plus interviews with pharmacy and rural store owners as well as leading physicians and nurses.*

D. SUMMARY OF THE DEVELOPMENTAL INVESTIGATION

Because the results of the developmental investigation are so central to the design decisions reflected in this implementation plan, a brief summary of the most critical findings is presented here. Readers are referred to MM&HP Project Document #14 for more detail on any of these findings and cautioned that the statements below are highly generalized. Many constitute hypothesis still to be tested rather than facts to be accepted.

The investigation showed that rural mothers/grandmothers play the principal child care role during illness. Siblings did not play as critical a role as expected during illness. Fathers were involved, but in many cases, mothers felt at liberty to diagnose, prescribe remedies, and seek outside help without the father's permission. In the face of overt opposition from fathers, mothers would often lose confidence in these areas.

Diarrhea was clearly seen as a major problem, particularly after appetite loss and general physical activity declined. Most mothers knew that severe diarrhea could kill. Rural mothers generally proved keen observers of diarrheal states and were perfectly capable of distinguishing mild, moderate, and severe cases of diarrhea. In their terms, mild diarrhea is associated with the number and consistency of stools, moderate with loss of appetite and activity, and severe with a depressed physical state, skin texture and dryness. Factors such as vomiting were particularly worrisome. Diarrhea was often seen as both an illness in itself, and the result of some other illness. Treatment was often related to perceived cause. If it was thought, for example, that empacho (a local description of general stomach upset) caused diarrhea, than a sobador (masseur) was used. If breastmilk was thought to be the cause, breastfeeding was stopped. If parasites were involved, medication was sought. Mothers

* The design and execution of these investigation activities has been described in MM&HP Project Document #12, and the detailed results are presented in MM&HP Project Document #14.

generally tried to treat the diarrhea at home and only sought medical help as it became clear that the child was becoming more seriously ill. Many mothers would wait until very late in the episode before seeking medical help.

The large number of diarrheal remedies, many including commonly available antibiotics, coupled with the mother's expressed skepticism about their effectiveness, leads us to believe that diarrhea is probably a disease so common and so difficult to affect, that mothers see their control over it to be limited. In essence they may be looking for a remedy that works, and at the same time, be prepared to accept a remedy that doesn't do all they hope for.

Rural health concepts proved to be highly influenced by modern medical practices. There was a clear preference for shots over pills, pills over liquids, and commercial medicines over herbal teas. The association of sophistication with effectiveness seemed apparent in most mother's responses to questioning.

Rural mothers can generally recite the basic concepts of personal hygiene, water boiling, and germ theory. Germ theory is integrated with traditional beliefs related to spirits over which mothers feel they have limited power. The integration of modern and traditional beliefs is expressed in terms of animalitos (tiny, visible animals which have different names such as worms, parasites, etc.). It is not clear that rural people feel they have reliable control over these animalitos.

Mothers related the rainy season to the diarrhea season, but did not seem to have any widespread explanation for the two occurring together. Bad water was mentioned as a frequent reason for illness.

Breastfeeding was widely practiced, but supplemental bottle feeding was also common, particularly after three months. Bottle feeding is more common in urban areas but is penetrating rural areas as well. Many mothers clearly recognized the benefits of breastmilk and stated with great confidence that "breast is best." But these same mothers were using supplemental bottle feeding and, when asked why, reluctantly indicated that convenience was their principal motivation. Honduran women do not generally carry their children on their backs, and consequently, spend a great deal of their day holding small children in their arms. This presents a serious inconvenience, and the opportunity to put the child down with a bottle is enticing.

The expected extent of purging behavior did not show up in the investigation. Caveat taboos against breastfeeding during mild to moderate bouts of diarrhea were not widely expressed. Vomiting was a common motivation to stop feeding and local doctors do recommend fasting and withdrawal of breastmilk during bouts of diarrhea.

Most mothers simply did not believe interviewers when told that a child should consume a liter of solution a day. Many were not open to the suggestion. It seemed simply impossible to them.

Sources of contamination were widespread and numerous. Efforts to find a single key cause were futile without being able to consider major infra-structural changes like water supply, functional latrines, and refrigeration. Priority attention was given to analyzing food preparation and feeding practices. The highest potential sources of bacterial contamination seem to be water, watery cereals, teas, tortillas, and possibly beans--although beans are not given in large quantities to small children. Handwashing among mothers was relatively common. Some mothers wash their hands as often as 10 to 15 times a morning. Frequent hand washing is generally within the context of making tortillas which consumes most of the morning and is interrupted by changing children, cleaning up, etc. Handwashing is actually hand rinsing in a pot of water which is infrequently changed.

Storage of weaning foods for several hours and even up to three days is common. Reheating is not a common practice. Constraints to widespread reheating include fuel costs and additional time required. This was clearly demonstrated in the dissonance between the widely accepted importance of boiling water and the very limited water boiling practice found in rural homes.

Indeed the concept of regular compliance may be an important issue. Rural people do not appear to give importance to specific degrees of compliance. If they breastfeed once a day, but bottle feed four or five times, for example, they feel they "breastfeed regularly." If they give a medicine once a day which should be given three times a day, they say they are "giving the medicine." Compliance with lengthy ORT administration instructions may be difficult, not only because the administration is tedious and time-consuming but also because mothers may define a much lower level of regularity as compliance and genuinely feel they are complying.

Radio ownership seems to include about 60 percent of the rural families. It is possible, however, that as many as 20 percent of these radios are not working. Most rural homes do not listen to radio all day. The cost of batteries and involvement in other activities mitigates against radio as a constant companion. Evenings and early mornings seem common listening times; regular news broadcasts are reported as the most popular radio programs. Attention to radio during listening times is high. People do seem to comprehend the programs that they listen to.

Graphic materials are scarce. Calendars are popular, but this is because they are given away free as commercial promotion.

The health system is very hierarchical. Lower levels tend to mimic higher levels. Any treatment suggested for rural clinics which is not practiced in central facilities is considered second class medicine, and the word quickly spreads to the patients.

Health facilities are not highly regarded by the rural people. Common complaints include that centers are often closed and that they lack medicines. Kaolin is widespread and highly promoted by the medical community. Its basic purpose seems to be satisfying the patient's need to stop, or firm-up the consistency of stools. The kaolin being used contains niomycin which is known to cause diarrhea and is definitely counter-indicated in most cases.

Auxiliary nurses are overburdened and generally do not see themselves as health educators. They resist this role in most cases and generally do very poor jobs of teaching or explaining to mothers.

The primary health care worker (guardiane) program is suffering from high desertion rates and poor support. MOH midwives are more stable largely because they are able to charge for their services. But midwives are not regarded as credible sources of information about diarrheal treatment.

The generalizations provided here represent conclusions drawn from the initial pre-program research. Stanford will be conducting a baseline study which will explore several of these areas in more depth. For the moment, this is the best information available to us.

E. OPERATING CONSTRAINTS

This section of the plan outlines the basic constraints operating on the project as a background to understanding decisions reflected in the implementation plan for Honduras. The constraints can be divided into three broad areas: contractual obligations, resource limitations; and instructional demands.

1. Contractual Obligations

The basic assumptions related to specific contractual obligations have already been mentioned in Section I-A, but their importance merits a brief elaboration here. The principal contractual obligations include:

- a. Use of radio as the major instructional force, supported by print and some face-to-face training. The salient point here is to demonstrate that the MM&HP Project is not a health worker training project supported by media, but rather a mass communication program, supported by face-to-face interaction.
- b. Application of systematic field investigation and formative evaluation procedures to design, develop, and continually improve all aspects of the campaign.
- c. Successful promotion of both prevention and treatment aspects of acute infant diarrhea.
- d. Emphasis on isolated rural populations.
- e. Developmental of an on-going MOH capacity and willingness to use a systematic campaign development process.

2. Resource Limitations

Resource limitations refer to aspects broader than the mere financial limitations. One of the most critical project constraints is the obligation to develop a methodology which the MOH can apply once the international project ends. Existing MOH resources are heavily taxed to provide essential medical care; little remains for health education and mass communication. It is

unlikely that the MOH will significantly restructure its resource allocation to support large new programs in mass communication. MOH deals with media and materials production through contractual rather than inhouse facilities, and regards these tasks as administrative rather than instructional problems. If mass communication is to be incorporated in the MOH, it must generate easily observable benefits which MOH administrators can see, at a cost not significantly greater than the present investments in health education.

A second, but related point, is the scarcity of trained personnel, not only in the MOH, but everywhere. This project is attempting to break new ground, to integrate fields such as behavioral modification, social marketing, and development communications. While a few examples of such programs do exist in the U.S., fewer examples are available in developing countries with illiterate, isolated populations. This means that technical assistance personnel experienced in all three areas are scarce. The MM&HP Project is relying on a set of consultants to ensure that innovations are consistent with existing wisdom. But resources for experienced consultants are also limited. Finally, and perhaps, most importantly, Hondurans, trained or experienced in these fields are simply not available. Those individuals most qualified are presently working in the commercial sector which provides greater financial and creative rewards than the MOH can be expected to offer. This means that while project technical assistance coordinators are developing and innovating, they must also teach systems which are only partially developed.

Finally, there are constraints on the financial resources available to the project. The budget was based upon costs developed two and three years ago. Costs during this time have grown tenfold, so that air-time and printing resources are now inadequate. The broadcast schedules and materials defined in this plan conform to what is needed and have not been seriously cut-back to meet existing resources.

3. Instructional Demands

The final area of constraints relates to the technical constraints operating on the project and includes the limits of instructional technology itself. Perhaps the best way to describe these limits is to compare, in an over-simplified manner, a social marketing project in the U.S. to the MM&HP Project.

The National High Blood Pressure Education Program, for example, used mass communication to promote a therapy maintenance program for aware hypertensives. Mass media was used to remind aware hypertensives of the importance of regular self-administered medication even during periods when they had no discomfort. The patient's family members were enlisted in the program to remind and support patient compliance. It seems unlikely that the hypertension campaign would have tackled promotion of a medicine which (1) patients had to prepare themselves (involving serious risks if the patient did so improperly), (2) required difficult self-diagnosis to determine when the medication was needed, (3) demanded a slow, continuous, 24 hour administration regimen,

and (4) had consequences which conflicted directly with the patient's expectations.

The widespread promotion of home-administered oral therapy proposes to do all of these things, to do them primarily by radio for a large audience which is illiterate, listens to radio infrequently, and lives in a state of severe poverty. Added to this is the fact that a distribution system for the product does not exist, and the project in addition to promoting compliance with a complicated regimen, must create a distribution system to very isolated areas.

If this picture seems challenging, prevention behaviors are even more so. They respond to no crisis problem like illness. They provide few observable results for mothers. They are costly in both time and resource expenditures, often relying on resources (like abundant water) which do not exist, and require continuous correct compliance to be useful at all. And again, media is the major resource available to reach most of the subject population.

SECTION II

CAMPAIGN ELEMENTS

A. OVERALL STRATEGY

The proposed public education campaign on treatment and prevention of acute infant diarrhea in Honduras will 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 if the diarrhea becomes worse to take their child to fixed health facilities or village health care workers. In these places, a more structured and controlled administration of oral therapy will be available.

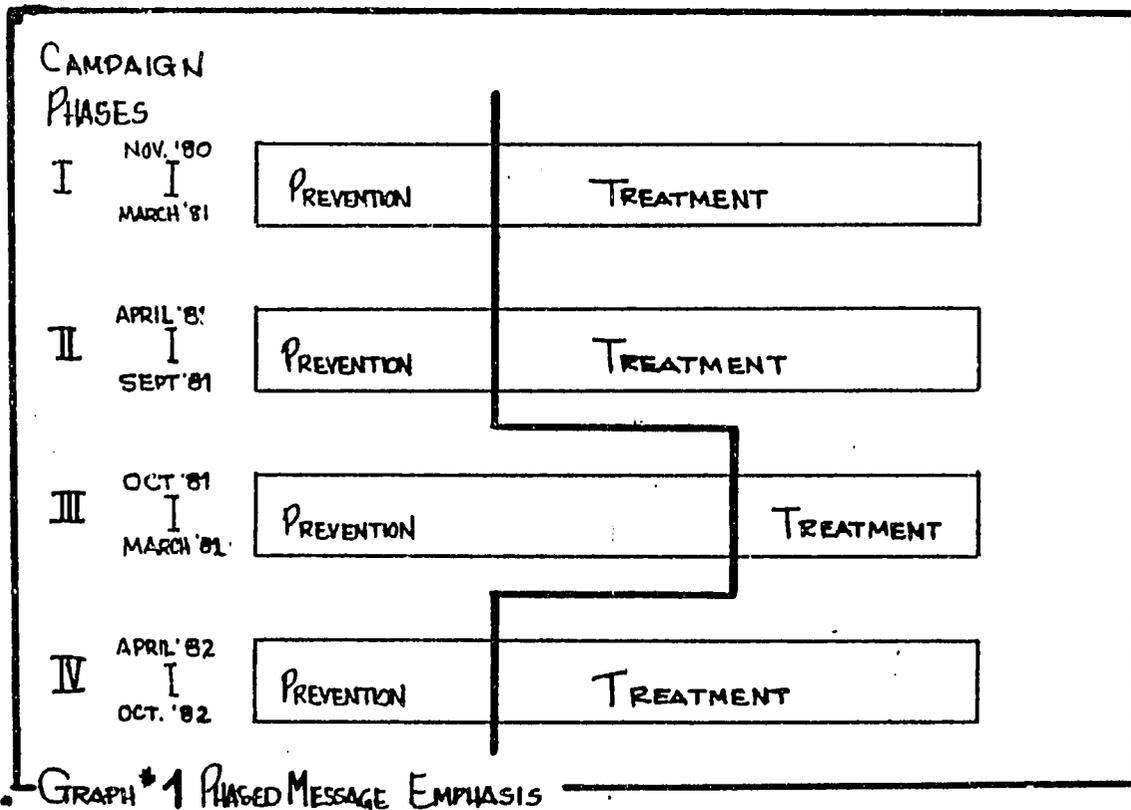
Two basic messages: administer ORT correctly when your child becomes mildly ill, and seek help if the child gets worse, will be the central themes of the campaign. These themes will be supplemented by a few prevention behaviors including continued breastfeeding, use of colostrom, home hygiene, and food preparation for children.

Treatment messages will 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/grandmothers with children under five and the primary health care workers called guardianes. Several other groups including rural fathers, physicians, nurses, auxiliary nurses, MOH midwives, rural primary school teachers and children, and health supervisors (promotores) will receive a small number of specialized messages designed to affect them to reinforce and support mothers and guardianes in the correct application of ORT.

The campaign is a two-year effort divided into four sequential phases timed to coincide with the peak seasons of diarrhea (see Graph #1). Phase I, which precedes the first diarrheal peak, will stress face-to-face training of health workers and medical professionals in the proper application of oral rehydration therapy for mild, moderate, and severe cases. Phase II, during the first diarrheal peak, will shift from an intensive face-to-face effort to a media-based mass campaign directed at rural mothers and grandmothers. Messages during this period will focus on diagnosis; procurement, mixing, and administration of ORT; and recovery. A few prevention concepts will be addressed during this phase. Phase III will shift to a prevention focus, but selected treatment messages will be broadcast to reinforce therapy compliance. This

period precedes the next diarrheal peak season and will prepare mothers to apply useful prevention techniques. Phase IV, during the second large diarrheal peak, will reemphasize ORT treatment. During this phase, media will be used to reinstate treatment behaviors elicited during Phase II, and to provide continued reinforcement to selected prevention measures.



A message pattern has been developed which differentiates messages by specific audience. The treatment pattern is built around a core cluster of treatment behavior which is either expanded for audiences like physicians, nurses, and auxiliares, or selectively emphasized for groups like school children and midwives. This means that physicians will learn how to treat severe dehydration with oral therapy in addition to the moderate dehydration therapy being taught to rural mothers. School children will not be taught the entire core cluster of oral therapy behaviors directed at mothers but will focus on early diagnosis and alerting mothers to a possible problem.

Prevention messages are also differentiated by target audience. For example, breastfeeding will be emphasized with physicians, diaper storage with guardianes, and general environmental sanitation in school programs (see Graph #2).

GRAPH # 2 MESSAGE CONCEPT BY TARGET AUDIENCE

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

Radio will 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. Word of mouth is expected to be 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 a preliminary intensive 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 (parteras) in communities with no guardianes.

- Secondary Audience (Category B)

3. Fathers of families with children less than five years old.
4. Auxiliar 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 were chosen over midwives, despite the fact that the MOH midwife program seems more stable and ultimately more successful than the guardian program, because midwives (unless they are midwives and traditional healers combined) are seldom seen as sources of information on diarrheal treatment. The community perceives the simple midwife as having an almost exclusive birthing role. This community conception is consistent with official MOH policy. For these reasons, guardianes, not midwives, were chosen as the basic health operative at the community level. In communities where no guardianes exist, midwives, who are also traditional healers, will act as health operatives.

Within the secondary audience, auxiliary nurses and physicians are given special importance because they represent the exemplary unit to which all other elements of the system look for guidance. The role of medical professionals is especially critical because the campaign promotes increased use of health centers as well as home-administered oral therapy. Consequently, these professionals must be prepared to receive increased case loads as well as promote a therapy which is ultimately more time consuming and requires more instruction to mothers than the intravenous (IV) therapy with which health professionals are accustomed. Because health providers are being asked to add

new tasks to an already overburdened schedule, they will receive special support from the project.

Fathers have been included in Category B because of their gatekeeping function regarding the purchases of medicines and their role in deciding when to seek outside medical help. Rural schools are considered the simplest and most effective way to reach older siblings with prevention and treatment diagnosis messages, while mobile health promoters are seen primarily as message reinforcers and distribution vehicles for ORT packets.

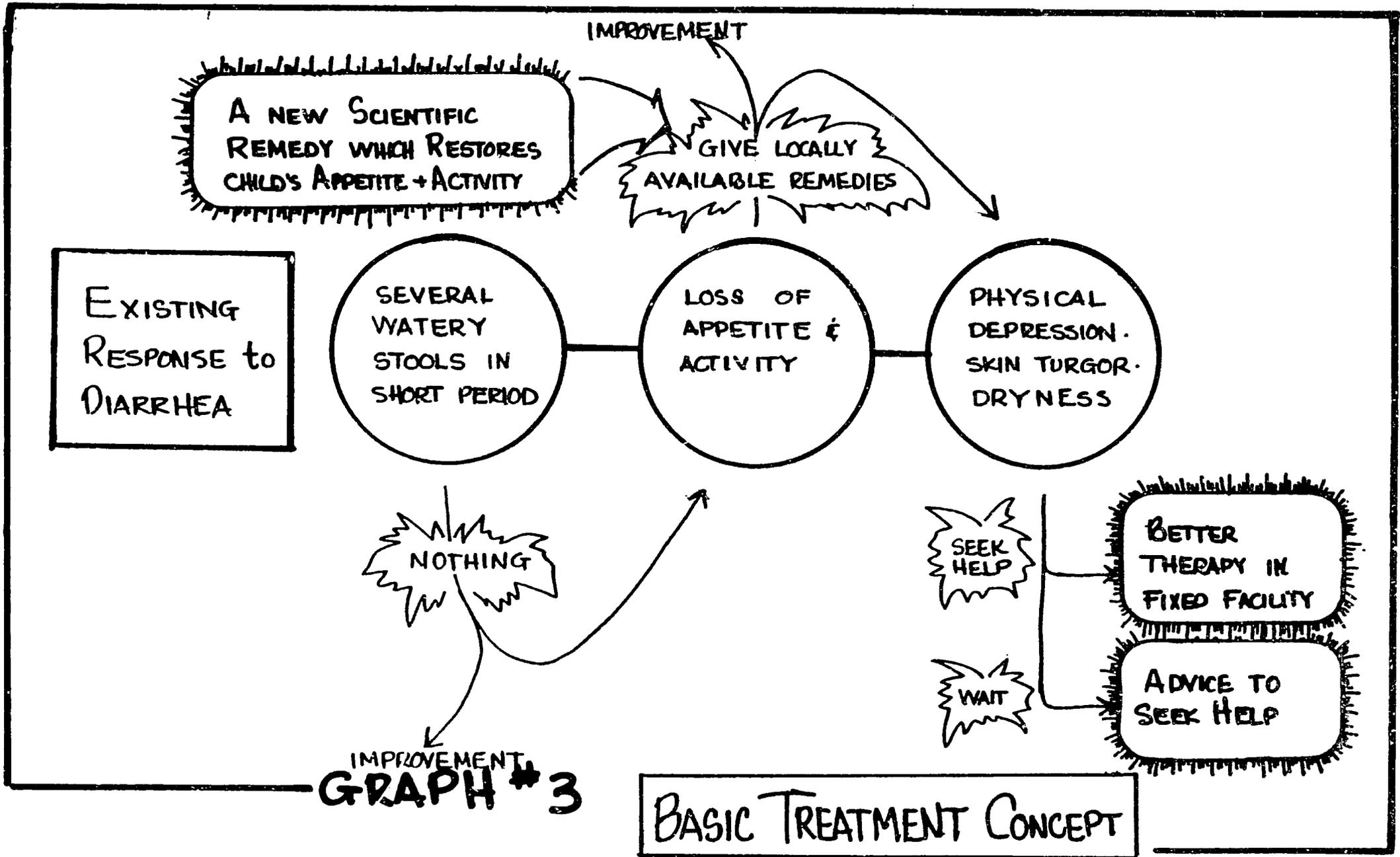
C. MESSAGE SELECTION

1. Treatment Messages

The treatment message strategy being proposed draws upon the results of interviews with and observation of rural mothers. It became apparent during this process that most rural mothers have an informally established set of discrimination points for diarrheal severity. Their first discrimination point is based upon the presence of several watery stools in a short period ranging from several hours to a day. At this early stage, mothers say their children have diarrhea, but generally do not appear to define diarrhea as an illness. As the child loses appetite and becomes listless, mothers become worried, begin to define the diarrhea as an illness and often administer a locally available remedy. An incredible array of remedies is available. None of the remedies, however, appears to be either preferred by mothers or particularly effective. Interestingly, antibiotics were mentioned commonly. If a child does not improve, becomes physically depressed, and skin dryness becomes noticeable, the mother perceives the symptoms as serious and possibly life threatening. She will either continue giving medication or seek outside help.

The MM&HP Project strategy is to add two new ingredients to this existing response repertoire. First, to market ORT as the latest scientific medicine for home-treatment of diarrhea. ORT will be sold as a medicine which does not cure diarrhea but which helps restore appetite and activity if given early and properly. The second ingredient of the strategy is to ensure that proper (oral rehydration therapy) treatment is available at fixed facilities and through local health workers when mothers bring their severely dehydrated children for treatment. Graph #3 outlines the existing response and the plastic overlay describes the basic treatment approach.

The tone of the treatment campaign will be serious, reflecting the attitude which rural women have expressed towards diarrhea. Oral therapy will be portrayed as the latest advancement in science, rather than a simple home remedy. It will be marketed as an aid to restore appetite and activity and not a cure for diarrhea. The concept of dehydration and the relationship between water loss, appetite loss, activity loss, and dryness will be explained. "Because ORT restores liquids, it restores your child's health." This approach is the result of field data which shows that mothers are most concerned about appetite loss and inactivity, and that they are unwilling to accept a "remedy for diarrhea" which doesn't stop the diarrhea.



The greatest obstacle to successful application of home-based oral therapy is considered to be regular and slow administration of the mixture over long periods of time by unsupervised mothers. This extensive administration requirement is not common behavior, and it violates important beliefs such as the volume of liquids that a mother believes her child can consume. It takes much time and produces very marginal payoffs for rural mothers. Other potential obstacles appear to be manageable. Mothers, when exposed to WHO packets were generally impressed with their "medical look"; mixing trials were quite positive and turned up few major difficulties;* the diagnosis regimen has been designed to coincide with what most mothers already define as severity points; and free distribution of packets is believed to be possible through commercial and health system outlets.

The specific form of oral rehydration therapy selected for MM&HP treatment messages relies on pre-packaged, complete formula mix. The initial packets will be WHO packets, but it is expected that later stages of the program will use packets produced by the MOH in Honduras. These packets will undergo special design and product testing procedures. The WHO packets have a shelf life of up to three years and require a one liter mixing container. The selected OR regimen has been developed in close consultation with the project's medical advisors and corresponds to the latest guidelines being issued by WHO.

The core treatment behaviors are divided into seven clusters including the following behaviors:

● Cluster A: Diagnosis

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

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

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

Infants	Child
Diarrhea and vomiting, and/or	Dry skin/mouth
Dry skin/mouth	
Sunken eyes	

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.

* A triangular packet is being designed which is compatible with soda and guaro bottles, the most common liter measure available in rural communities.

** 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 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.
6. State why it is worth making the effort and expenditures.

- 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 salt 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 breastfeed 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, ploeadas, 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 continues 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.

For some experts, the regimen being proposed may seem conservative because (1) it relies on pre-packaged OR salts rather than a simple sugar and salt home-mix, and (2) because mothers are advised to seek outside medical advice at relatively early, moderate stages of dehydration, well within the effectiveness limits of properly administered oral therapy. The first decision responds to serious concerns about advocating simple sugar and salt mixtures to a large audience by mass media alone and because the MOH policy explicitly promotes complete, pre-packaged formula over simple sugar and salt mixtures. The decision to adopt relatively conservative decision points for ending home therapy results from a concern that improper administration poses a threat to young children and a belief that until field information is available on unsupervised home administration, preference should be given to conservative judgments in this area. This core cluster of treatment behaviors is supplemented with additional specialized information for medical practitioners on how to treat severe dehydration with oral therapy, management of children in shock from diarrheal dehydration, and appropriate drug therapy (see Graph #4). Auxiliary nurses and guardianes will receive additional support on how to teach oral therapy to rural mothers.

The following diagram illustrates the complete rehydration regimen being advocated by the MM&HP Project. Stage A for mild cases of diarrhea is being promoted among guardianes and rural mothers for administration in rural homes. Mothers are being asked to give one liter of GE/SOL to infants less than seven years old and two liters of GE/SOL to toddlers older than one year during a 24-hour period plus at least half that volume in free water, fruit juice, or breastmilk.

Physicians, nurses, and auxiliary nurses will be taught Stages B and C of the diagram in addition to Stage A. In Stage B, practitioners will be asked to weigh the child and administer 100 ml. of GE/SOL per kg. of child's weight for four hours and then to administer 50 ml. of free water per kg. of child's weight for two hours.

If a child arrives in shock, the practitioner will administer 100 ml. of Ringer's Lactate by IV per kg. of child's weight in four hours. At least 25 percent of this should be administered in the first hour.

At the completion of each stage, mother and practitioner are asked to re-evaluate the child's condition and proceed to the appropriate next stage. If a child in Stage A does not improve, for example, the mother should re-administer another 24 hour dosage of the fluid. If the child is worse, than she should take him to a health facility and seek help in administering Stage B.

2. Prevention Messages

As regards prevention, the campaign will attempt to link three concepts which now exist in rural areas. One is the belief that small animals (animalitos, which may be worms, parasites, etc.), exist and cause disease. The second is that children are weaker than adults, and infants are generally weaker than toddlers. The third area involves a series of behaviors which have been conceptually internalized but infrequently practiced by rural women.

This third area includes breastfeeding which, even though it was commonly reported by mothers as "the best source of milk a child can get," is widely supplemented with improperly administered bottle feeding. Mothers justified this inconsistency by explaining that bottle feeding was more convenient. Water boiling is also understood to be important, but not widely practiced. The explanation here is that boiling water is too time consuming and costly to do regularly. Finally, personal hygiene is recognized as essential to good health. But again, water is scarce, soap is expensive, and rinsing, rather than aggressive scrubbing seems common. These beliefs appear to be the product of rote learning rather than a critical understanding of what boiling and cleanliness achieve.

The project will attempt to link the understanding of animalitos with the reason for selective water boiling, reheating of foods, and hand washing. The relationship can be expressed as follows:

- a. Yes, animalitos do cause disease, and there is something that you can do about them.
- b. Because children are weaker than adults, they are more susceptible to disease caused by animalitos.
- c. Animalitos can be killed by heat. You can kill the animalitos in food by heating it.
- d. Boiling water and reheating food is a lot of work, but if you boil the water and reheat/prepare fresh food for children, you can make sure that they are protected.
- e. Remember animalitos are everywhere. You can't kill them all, but you can help protect your children by serving freshly made or reheated food and boiling the water they drink. And guess what, breastmilk doesn't have any animalitos in it. It is safe and that's another good reason to breastfeed.

Graph #5 illustrates existing prevention concepts, and the plastic overlay shows the project's basic prevention approach.

EXISTING PREVENTION CONCEPTS

TRADITIONAL SOURCES

• Little Animals exist everywhere and cause disease

MODERN SOURCES

LINKAGE

- "ANIMALITOS" ARE ESPECIALLY DANGEROUS TO CHILDREN
- HEATING KILLS "ANIMALITOS"
- ANIMALITOS GROW + MULTIPLY IN HUMAN FESES

BREAST IS BEST
Bottle gives freedom to mother

BREASTMILK IS FREE OF ANIMALITOS
BREASTFEED MORE OFTEN

BOILING H₂O IS GOOD
Too time consuming + expensive to do regularly

BOIL H₂O for INFANTS
REHEAT/PREPARE FOOD FOR CHILDREN FRESH!

WASHING IS GOOD
• Soap Expensive
• Water Scarce
• Rinsing Common

WASHING HANDS GETS ANIMALITOS OFF,
BUT WASHING MUST BE VIGOROUS WITH SOAP / LOTS OF WATER

GRAPH #5

BASIC PREVENTION APPROACH

The prevention messages will stress a mother-craft concept: select several positive behaviors which mothers are already performing, reward them for doing those right, and link a few new behaviors to the general concept of "being a good mother" and "protecting your child from disease." The use of humor is considered more appropriate here than in the treatment messages, but the general thrust of the campaign will be straightforward messages like "you're doing a lot that's already correct, you're really a terrific mother, and here are a few things you could do even better."

The actual selection of prevention messages was particularly difficult because such a wide array of possibilities were available. The final list was selected after considering some 73 alternatives which were analyzed using the following criteria: *

- Relative Superiority: the advantage over the practice it will supercede
- Compatibility: its compatibility with the existing values, past experience, and needs of the receivers
- Divisibility: its trial potential in terms of being divisible into less complex parts
- Observability: its observability to the individual, and those who surround him who might act to reinforce or disapprove of the behavior
- Frequency: how often the behavior has to be performed
- Persistence: need to perform the behavior over a long, or short period of time
- Performance Cost: the degree to which outside resources are needed including objects, power, or time.
- Saliency: the importance of the behavior in contributing to prevention of infant diarrhea

The resulting list is grouped into four clusters. Cluster A includes prerequisite or predisposing attitudes, information which supports adoption of the target behaviors outlined in Clusters B, C, and D. These three clusters focus respectively on three areas: breastfeeding, food preparation, and personal hygiene. The full list of prevention behaviors selected includes the following:

- Cluster A: Prerequisite Concepts
 1. Infants/children are different from adults. They are weaker and cannot protect themselves from disease (and animalitos that cause disease) as easily as adults.
 2. Animalitos cause all kinds of disease, but especially diarrhea in small children.

* See Appendix B for full list.

3. There are two ways we can protect our children from these animalitos. We can keep the animalitos from infecting the child, and we can kill the animalitos by heat.
 4. The origin of most animalitos is human feces.
 5. Breast is the safest and best milk.
 6. Breastmilk contains no animalitos.
 7. Boiling will kill the animalitos and protect the child.
- Cluster B: Breastfeeding/Bottle-feeding
 1. Mothers should give infants only breastmilk for the first three to four months, and then continue giving breastmilk along with foods like cereals, rice, and corn, until the child is 12 or 18 months old.
 2. Colostrum, la primera leche, should be given to the child because it helps protect the baby from disease.
 3. Mothers who are breastfeeding are special; they need to eat more than normal, and especially eggs which are good for them.
 - Cluster C: Food Preparation
 1. Boil all water given to infants and children, especially during the rainy season.
 2. Reheat all foods, especially tortillas and soups, before giving them to infants and children.
 3. Boil cow's milk for infants and children.
 4. Do not store food for children; make it fresh when possible, especially teas and powdered milk.
 - Cluster D: Personal Hygiene
 1. Mothers should wash their hands with lots of soap and water before feeding infants.
 2. Mothers should wash their hands with soap before preparing foods for children.
 3. Change tortilla water at least three times every morning while making tortillas.
 4. Use soap and water to wash the spoon you use to cook and stir the frijoles with before cooking begins.
 5. Put dirty diapers in a covered place as soon as possible after the baby is changed.

D. MESSAGE PHASES

The overall campaign is divided into four 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 will also permit systematic incorporation of monitoring information and the efficient distribution of production material resources over the total 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 has clearly shown a diarrheal peak occurring during the rainy months of May and 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.

A 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 semiurban areas (Danli, El Paraiso), MOH fixed health facilities (CHE, CESAMO, CESARS), nurses, auxiliary nurses, and primary health care workers (guardianes). At this moment many of these individuals have never heard of oral therapy, others know of it but have strong reservations about its viability, and a few leaders of the pediatric community are dedicated converts. Full conversion of the Region I medical community to oral therapy represents a significant challenge to project success, one requiring special attention early in 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 preventative 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 reinforcing 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. It is now clear that the team's financial and human resources require a gradual development of messages, spreading these functions over time, rather than concentrating them in one or two production cycles. The four phase configuration will not only allow phased development of materials but will also permit systematic monitoring and provide longer lead time for needed adjustments.

Phase I focuses upon critical enabling messages identified during the pre-program investigation as important prerequisites to adoption of both treatment and prevention behaviors. The essential goal is to implant oral therapy as standard operating procedure in Health Region No. 1 of Honduras. A secondary goal will 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.

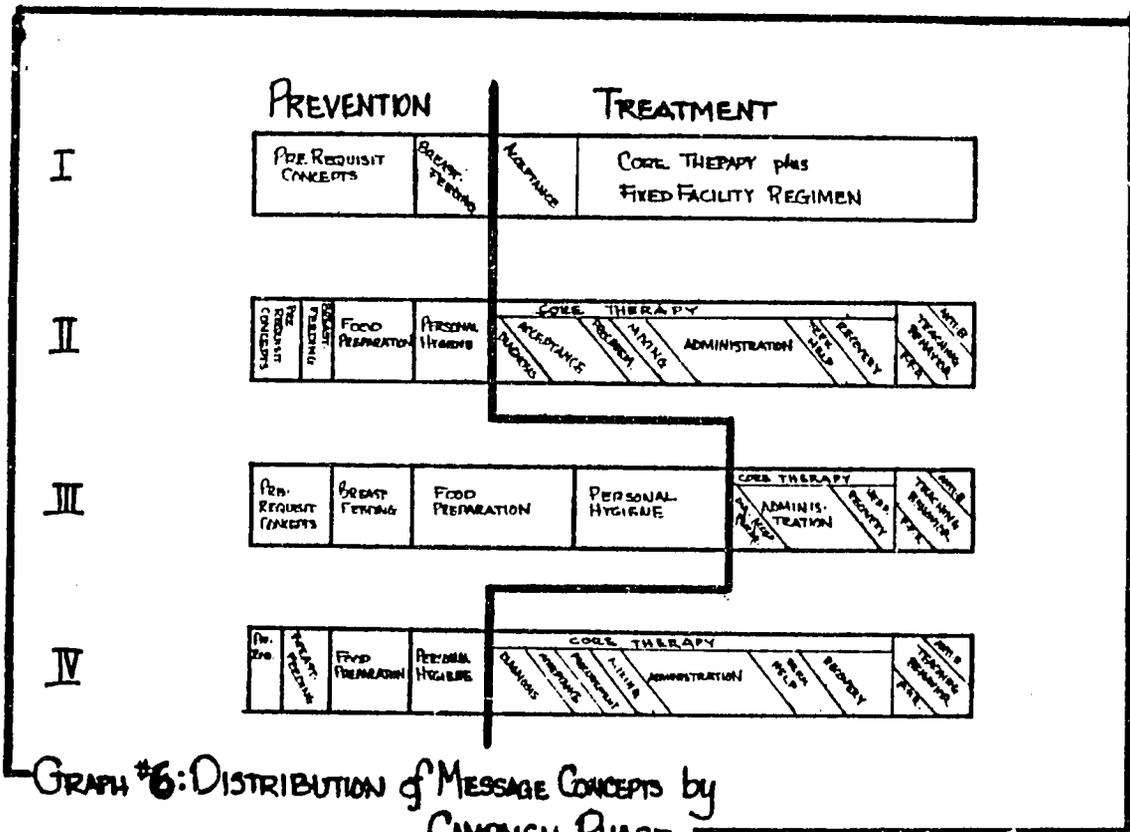
Phase II will shift from a face-to-face approach to a heavily mediated campaign directed principally at rural communities. The central message here will be oral therapy. This phase coincides with the first diarrheal peak and represents a period during which treatment information is most critical. Supplementary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

Phase III will focus on prevention. Again using media as the principal instructional tool, the campaign will promote selected prevention behaviors clustered around the core content areas already identified. A complimentary effort during this phase will be directed at maintaining the treatment behaviors introduced during the preceding phase and providing continuing support for the correct application of oral therapy.

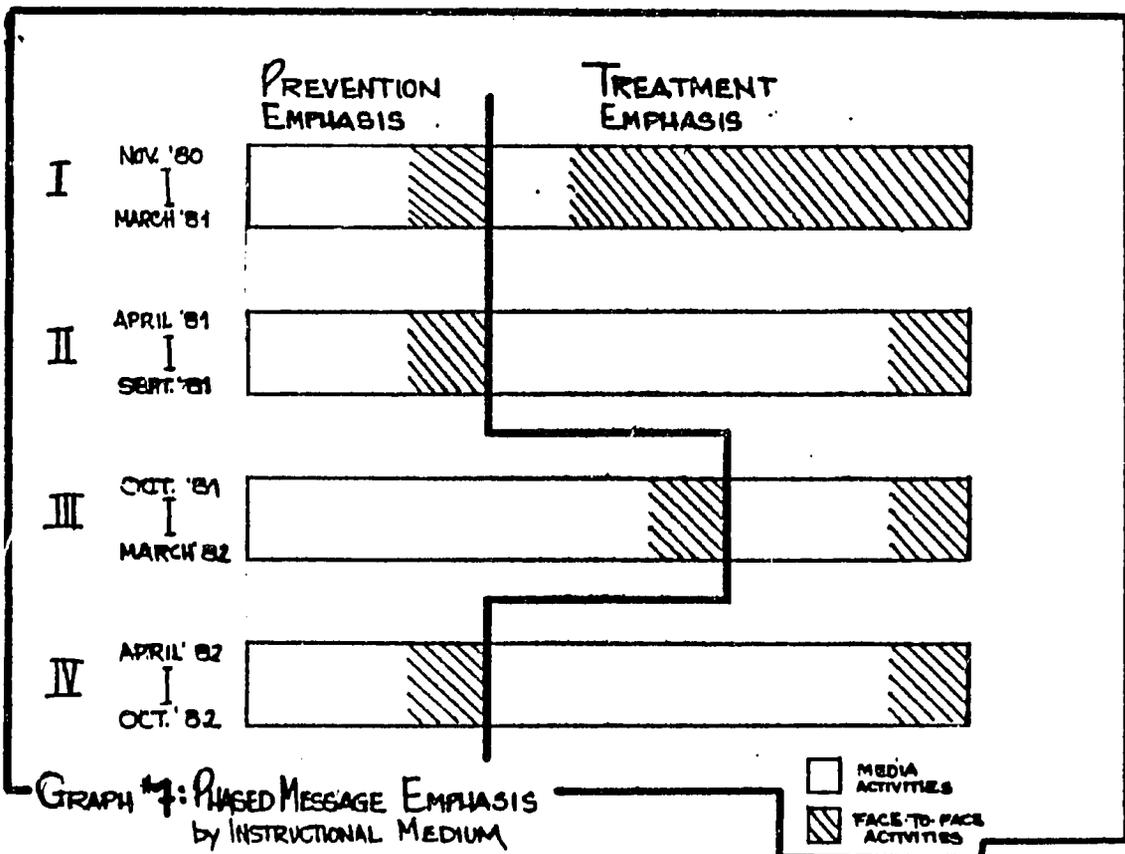
Phase IV which coincides with the second largest diarrheal peak will return to a treatment focus, attempting to reinstate oral therapy. At the same time, selected prevention messages will be continued, providing a sub-set of messages which have been broadcast at relatively low levels of intensity for the entire two-year period.

The overall design provides long-term emphasis on a few prevention messages, short-term intensive emphasis on treatment messages during two critical seasonal periods, 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 the plan, includes low levels of continuing face-to-face support for health workers during the two-year campaign.

Graph #6 illustrates how messages are distributed over the four campaign phases.



Graph #7 shows how emphasis on instructional media varies according to each phase development.



E. INSTRUCTIONAL MATERIALS

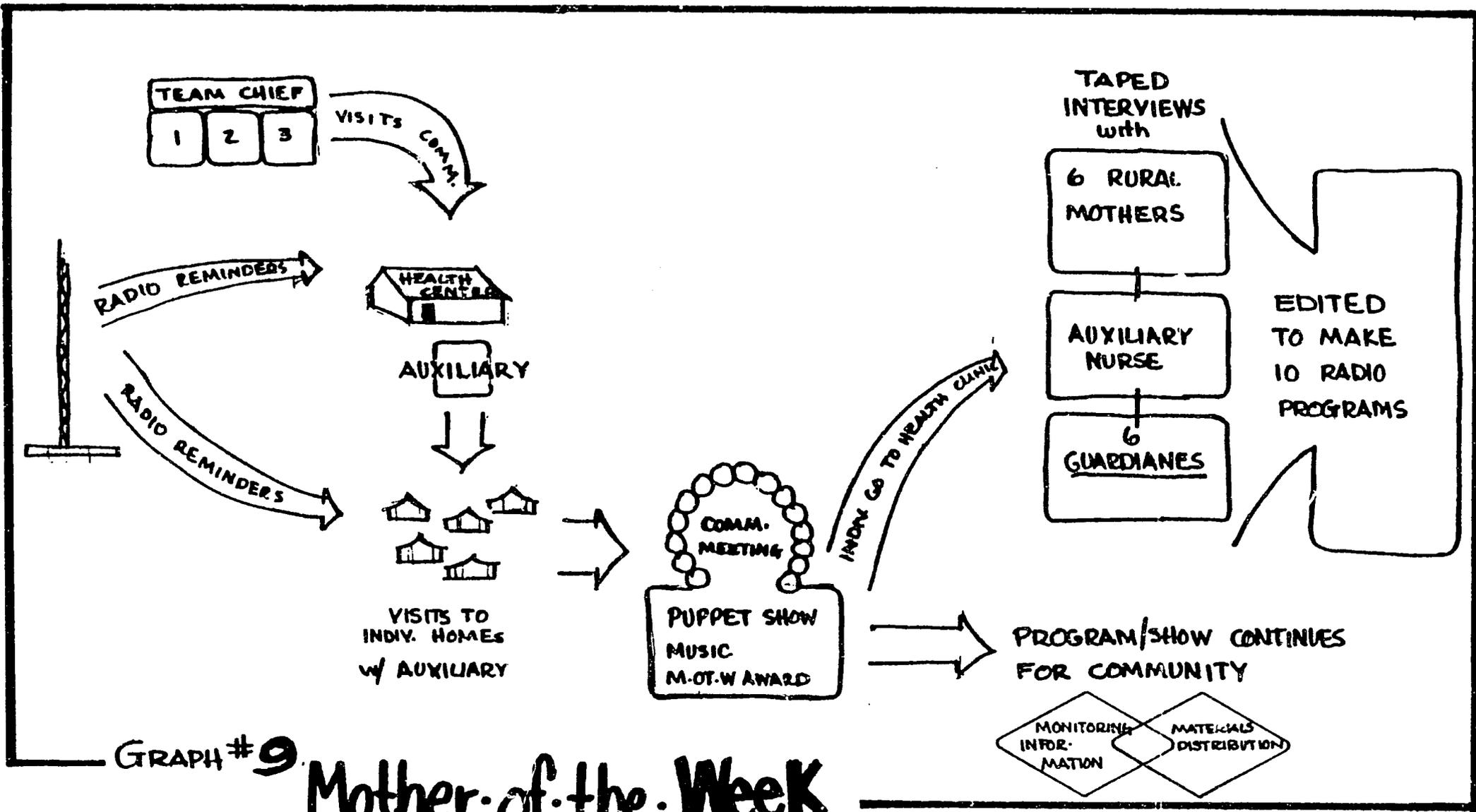
1. Material and Message Concepts

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 specific media and these products targeted to specific message concepts and specific target groups. Graph #8 illustrates how message concepts and campaign materials are related.

GRAPH #8 MESSAGE CONCEPT BY CAMPAIGN MATERIAL

		BROADCAST RADIO				GRAPHICS			SUPPORT VISUALS			TRAINING:	
		SPOTS	MOTHER OF THE WEEK	NEWS	MINI-NOVELLA	POSTERS	CALENDAR	MINI-NOVELLA/PAMPHLET	RIO CHART	POSTER	MINI-NOVELLA		
TREATMENT	ACCEPTANCE	↑			↑	✓		↑	↑	↑	↑		
	DIAGNOSIS			✓		✓							
	PROCUREMENT		✓										
	MIXING		✓				✓						
	ADMINISTRATION		✓				✓						
	RECOVERY												
	SEEK HELP	↓		✓	↓			↓	↓	↓	↓	↓	↓
	(ADDITIONAL MESSAGE CONCEPTS)												
	• ANTIBIOTICS/DRUG THERAPY			✓		✓		✓					
	• FIXED FACILITY REGIMEN					✓		✓				✓	
• TEACHING BEHAVIOR											✓		
PREVENTION	• PRE-REQUISITE CONCEPTS			✓		✓	✓						
	• BREASTFEEDING			✓		✓	✓	✓	✓	✓	✓	✓	
	• FOOD PREPARATION					✓	✓						
	• PERSONAL HYGIENE					✓	✓						

Four different radio formats have been selected: radio spots, a special weekly program called "Mother of the Week" (see Graph #9), regular news broadcasts, and a weekly mini-radio-novella. Visual materials have been divided into two sub-groups: those designed for mass distribution - like posters, a calendar, a mini-novella/pamphlet, and support materials for the training sessions which include a flip-chart, pamphlets, and a treatment poster. Finally, the face-to-face training has been divided into two areas. The first provides direct training to health workers and medical professionals through structured seminars, and the second, training to rural mothers through guardianes and auxiliares.



GRAPH #9

Mother of the Week

Communities will be selected on the basis of isolation and difficulty of distribution. Once chosen, local health workers will be contacted and radio announcements used to alert the population to the team's visit. Upon arrival, the four person team will visit the health workers, private homes, and the health center--inviting people to the large-group presentation. A puppet show, music, and games will be used during the one-hour presentation. Diarrhea will be the main focus of discussion. During the presentation, several mothers will

be selected as MOW and receive a prize (a box of hand soap). They, along with the health workers, will then be interviewed and taped individually. During these interviews, remaining team members will conduct informal interviews with community members concerning radio reception and knowledge of the program. During the return trip, the team will distribute graphic materials and ORT packets to nearby villages.

The basic strategy is 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 emphasized for each 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.

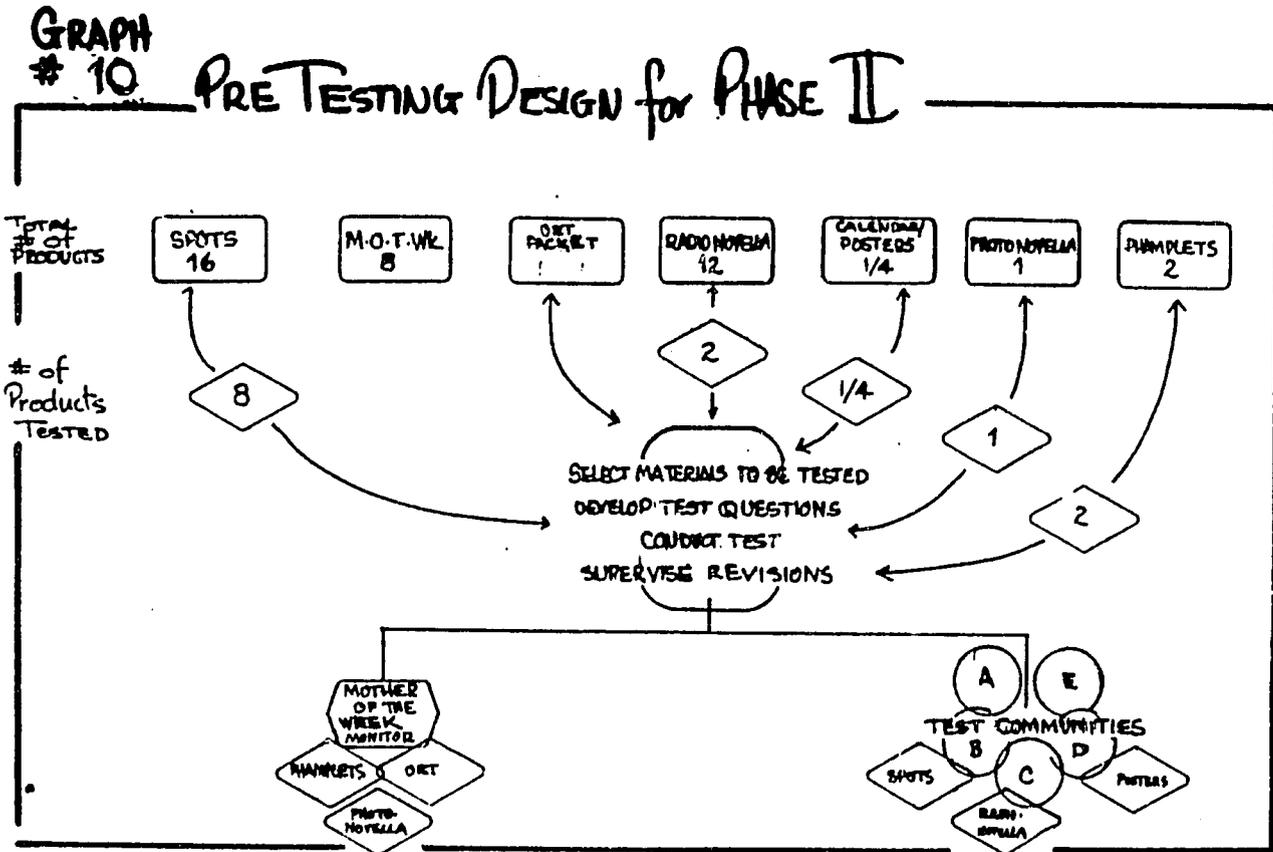
Some media will be used to disseminate only a few messages. Posters, for example, will not be used to teach OR administration, but will focus on diagnosis and acceptance, helping mothers differentiate between skin turgor and dehydration, and telling them where to acquire oral therapy packets. One poster will be prepared for physicians and fixed health facilities which will outline the full oral therapy regimen and stress problem areas like vomiting, antibiotic therapy, and the importance of continued breastfeeding during bouts. A calendar, chosen because of its popularity among rural people, will be given to mothers who acquire their packets at health centers and will help remind them of OR solution mixing and administration requirements. These few examples illustrate how the campaign has been integrated and targeted to specific groups and around specific message concepts. Detailed information on distribution of each material is presented in the implementation plan timeline.

2. Materials Development

The project will 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 these audiences will be conducted in five villages outside Tegucigalpa. While these villages are not totally typical of those in the most isolated sites in the region, they do provide convenient and representational sites for testing. They also permit more frequent testing than would be possible in truly isolated areas.

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. These questions will be used to guide the interviewers. Materials will be chosen for testing based on their novelty and complexity; the more novel, the more complex, the more testing.

Testing will go on throughout the campaign. Heavy pretesting will be concentrated during the three months prior to the initiation of each campaign phase, but selected pretesting will go on during each campaign phase as well. This is particularly true of treatment messages, which are stressed during two separate campaign phases. Test results developed during the first phase may not be incorporated until the second treatment phase. Graph #10 provides a schematic description of how pretesting will be conducted for Phase II, the first heavily mediated phase of the campaign.



3. Materials Production

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 local radio producers. Several teams of producers have been identified. One team will be responsible for the "Mother of the Week" program. Another team will develop the spots and a third team will work on the mini-novella. Project staff will take direct responsibility for production of the news shows and graphic material designs.

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 these 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.

F. TRAINING

Design of the training component centers upon an understanding of what areas are difficult to teach, what information is most easily forgotten or confused, and what information is rejected as untrue or unsound. The training development process will begin with a week's observation of oral therapy being administered to mothers in the national children's ward in Tegucigalpa. These observations will be used to develop a training curriculum for rural mothers which will be tested in the out-patient clinic of the children's hospital. Mothers will be taught how to make the solution and given two packets to take home with them. Follow-up visits will be made to selected homes at regular intervals of one, two, and three weeks after exposure. At each stage the areas outlined above will be analyzed and changes made to improve learning.

The new curriculum will then be taken to several rural clinics, taught to auxiliary nurses who will in turn teach it to rural mothers. These mothers will be visited again at regular intervals after the clinic lessons, and asked the same information listed below. This testing process will result in the final definition of learning materials and teaching styles best suited to two of the critical audience groups, auxiliary nurses and rural mothers. These materials will then be used in structural seminars for physicians, auxiliares, and guardianes conducted during March, April, and May. The project will finance the oral therapy training for each seminar group. Radio announcements will be used to inform rural participants that travel and food costs will be covered by the project. It is hoped that this will encourage guardianes to attend. Packets will be distributed in bulk according to the distribution plan outlined in Section II-G.

Those behaviors which prove most difficult to support over time will be built into the radio programs as regular reminders. Some of the areas expected to be critical include:

1. Using a full liter to mix the solution.
2. Throwing the prepared solution out after one day.
3. Giving free water or breastmilk along with OR solution.
4. Giving the entire solution, slowly, over 24 hours.
5. Understanding the child is recovering, even though the diarrhea continues.

In this way, many of the radio programs will be an extension of the training experience, reinforcing health workers at the same time that they teach mothers.

G. DISSEMINATION SYSTEM

This section of the implementation plan describes three components of the dissemination system: the implementation system for oral rehydration packets, distribution of print materials, and the radio broadcast plan. Each component has been designed to draw upon existing resources and recognizes that direct project intervention will be necessary to ensure that the dissemination system is actually working. Distribution of materials and medicines is now one of the most difficult problems of the MOH.

1. Distribution of ORT Packets

Pre-program research clearly indicated that most rural people acquire common medications in local pulperias (stores). These stores exist in almost every community and sell a range of common remedies from aspirin to antibiotics. The number of different medications and the size of available stocks are relatively small. It was common to find a small store with two pills of a given antibiotic perhaps one display box of aspirins, and two display boxes of some common antacid. These medicines reach rural stores in two ways. The most common way in isolated communities is for the store owner to travel regularly to one of the several distribution outlets in Tegucigalpa, purchase the medicines and bring them back himself. A secondary system, using traveling salesmen, operates in most of the less isolated sites. All medications are sold, and profit is the basic incentive for the system to operate.

The MOH system works through district level distribution to health centers, CHES (regional hospitals), CESAMOS (complete health centers), and CESARS (rural health centers).^{*} Distribution is sporadic, medicines are scarce, and one leading physician reported that doctors and nurses tend to prescribe whatever medicine is available. If the pharmacy has a stock of kaolin, for example, kaolin will be widely prescribed until it is depleted. The implication of his comment was that whatever you supply, be prepared for it to be used rather quickly. Hoarding did not seem to be a problem, but adequate analysis of this issue requires a longer observation period than our pre-program research permitted.

Project planners propose to incorporate both commercial and official distribution outlets in the overall distribution system for OR packets. The one stumbling block to commercial distribution of OR packets is the presence on the market of a pre-mixed, bottled ORT solution which sells for about U.S. \$6.00. Obviously, it is neither a widespread nor a practical alternative to a packet costing several cents. However, existing law prohibits the MOH from selling a remedy which competes directly with one already on the market produced by a commercial firm. At the moment, this problem remains unsolved. Two approaches are being taken to solve it.

First, the project is contacting the commercial supplier and exploring the possibility of their marketing the pre-packaged salts. Secondly, the project is exploring some legal solutions to commercial distribution by the MOH of their packet. Both avenues may be unproductive, but at best, an early solution to this issue is not anticipated.

* Detailed descriptions of this system is available in Project Document #11.

Distribution of the packet through existing MOH facilities presents fewer legal obstacles, but is a serious logistical problem. At present, there is one CHE, 11 CESAMOS, and 61 CESARS in the district. In addition, there is a network of some 74 auxiliary nurses, 164 guardianes, and some 698 trained midwives, as well as 18 health promoters. This latter group is very mobile and travels regularly from one village to another. Auxiliares, guardianes, and midwives meet every two months in small groups to review training concepts and ostensibly receive new supplies. In fact, few have ever been distributed. The project will distribute materials at these meetings. It is anticipated that each village worker (guardian) and some 200 of the 698 midwives will receive approximately 250 packets every six months. This calculation was based on officially reported incidents of diarrhea over the past two years. Health promoters will be used to distribute packets to those guardianes and midwives who do not come regularly to the meetings, and to reinforce use of the packets during their visits to communities. It is expected that the availability of packets at the regular meetings will be an incentive for more health workers to come to the meetings. A large graph is being made as a control device for distribution of packets. Individual health facilities and health workers will be tracked and re-supplied at regular intervals. This tracking should also assist in monitoring the overall effectiveness of the program.

If the commercial distribution issue is settled favorably, the project will use the three most popular pharmaceutical distribution centers in Tegucigalpa to promote and distribute ORT packets to rural pulperias. Special promotional materials will be prepared and promotional sessions run at these centers for the owners and personnel who contact pulperia owners. A large supply of packets will be provided and a price established which provides commercial incentives and is consistent with the rural market.

One additional factor remains unsolved. If the same product is to be sold in pulperias and given away free in health centers, will the public protest? This issue will be resolved in the context of dialogue between MOH and the commercial sector. Our preference is to promote commercial sale and free distribution combined.

2. Distribution of Print Materials

Print materials are divided into three categories. The first includes those materials which will be mass-distributed to rural communities, essentially posters, calendars, and pamphlets. The second is special materials mailed regularly to key members of the medical community and includes flyers, pamphlets, and news articles. The third category includes materials used in training courses such as flip charts and observation guides.

The third group will be produced in small quantities, only enough for the seminar participants. They will be used as instructional aids to participants and will be designed for a literate audience. Distribution of these materials will be in the hands of project training personnel.

The list of individuals to receive mailed materials is now being developed. It includes leading physicians, respected pediatric nurses, and health centers where mailings are possible. These materials are designed as agenda-setters,

focussing on oral therapy and breastfeeding and providing the latest, up-to-date findings on these areas presented in simplified medical jargon. Articles from WHO's Diarrheal Dialogue will be disseminated in this fashion.

The mass distributed materials represent the largest and most difficult distribution problem. Several different posters will be produced during the two-year life of the project.

Posters will be printed on common newsprint and expected to last from three to six months. This means that a regular distribution system will have to be developed for these materials. The project expects now to rely heavily on health workers and direct visits to rural communities. They will receive materials during their regular bimonthly meetings. The "Mother of the Week" (MOW) program offers an excellent opportunity to visit not only the community being highlighted in the specific program, but all those nearby communities as well. The MOW team will carry with it a stock of posters and glue, visiting communities along the way, and attaching many copies of a single poster in several places throughout the community. In addition to the health centers, selected homes will be used as attachment sites. This technique proved useful in the Bolivia Soybean Promotion campaign and seems consistent with Honduran attitudes toward use of posters.

Bus owners will also be approached and requested to participate in the program. If owners cannot be convinced to attach posters to the outside of their buses, a smaller version will be produced for the interior.

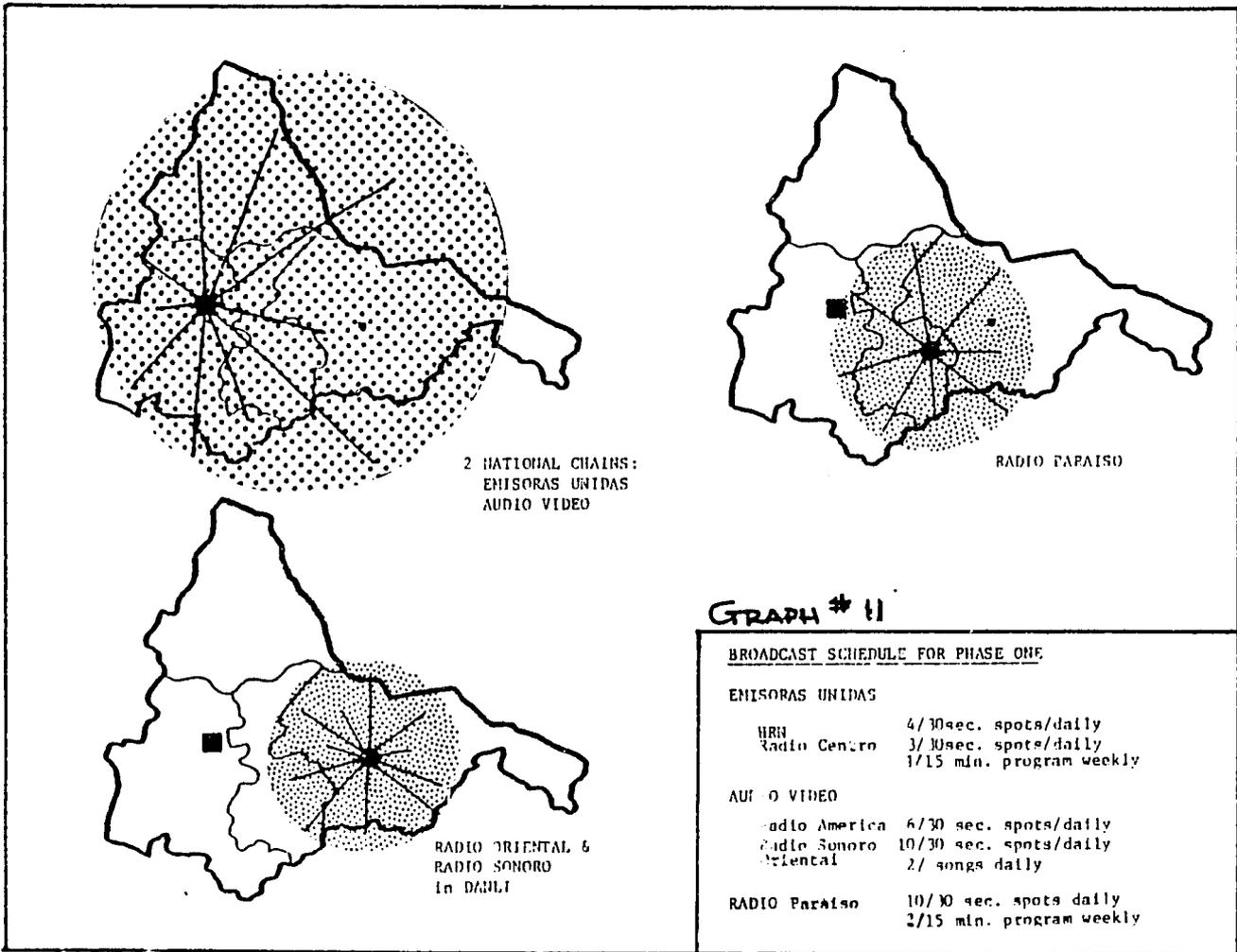
Health workers will receive stocks of posters and specific instructions on where to put posters in their community and how to glue them to ensure maximum effectiveness. A simple paste will be used which can be made in rural communities.

Calendars and mini-novellas will be distributed to health workers and through them, to rural mothers. Clinics and health centers will have an attractive display of these materials which will function as a distribution point independent of nurses or auxiliars. This approach requires extensive stocks of such materials, and may only be viable in a small area of the target region. All these materials are incentives for health workers to participate more actively in the program as well as tools to increase instructional effectiveness.

3. Broadcast Schedule

The broadcast schedule defines the relationship between 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. The stations were selected as results of the pre-program investigation and include those which rural mothers reported as being the most popular. Three national stations, HRN, Radio Centro, and Radio America were selected along with three regional stations: Radio Sonoro and Oriental in Danli and Radio Paraiso in Paraiso.

Graph #11 shows the estimated broadcast range of the national versus the regional stations as well as broadcast schedules for Phase I. It is clear from this graph that the three national stations reach areas outside the target region. Because the MOH will soon be 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. Final determination of the necessity for subregional targeting will be made in coordination with the evaluation contractors.



A detailed broadcast schedule for message distribution has been developed for only the first two phases of campaign activity. This will permit the team to make more accurate judgments on outreach and relative station impact and to redesign the message distribution for the third and fourth phases (see Graphs #12 and #13).* Graph #14 illustrates a sample broadcast week during peak periods.

It is apparent that because the number of broadcasts on national and regional stations are fairly equal, and because national radio broadcasts reach the area covered by the regional radio station, the regional area will receive twice as many radio messages. The rationale for this difference is broadcast cost. The cost of national radio broadcasts is significantly higher than regional transmissions and it is well beyond the resources of this project to promote region-wide saturation broadcasting. Twelve daily broadcasts of a single spot on HRN alone cost US \$1,880.00 a month. The estimated cost of a full scale saturation campaign on three regional radio stations for one year is approximately US \$50,000.00. These prices include a 50 percent discount given to public institutions like the MOH.

One additional strategy to help reduce broadcast costs is to concentrate on broadcasts during the two peak diarrhea periods which last only about two months. For one month preceding this period, and for the peak period itself, saturation broadcasting will be used. During the remaining three months of these two periods (Phase II and IV), support broadcasting will be stressed.

An empirical question remains unanswered. How much radio time is needed, on what kinds of stations, to produce impact? Little information now exists on broadcast impact in Honduras. We expect information collected from the first two campaign phases to help answer this question.

H. MONITORING OF CAMPAIGN COMPONENTS

Regular information on program effectiveness is considered essential to the overall success of the campaign. Monitoring information must help ensure proper distribution of essential elements like radio broadcasts, print materials, and packets, and also provide qualitative information on how these materials are being received and used. The sequential scheduling of campaign phases narrows the band of activities to be monitored, but also places added pressure on project staff members who are developing new materials at the same time they are monitoring ongoing activities. Again, the critical problem here is deciding what not to do.

* Graphs #12 and #13 are comprised of a general grid. Separate boxes indicate the number of different materials distributed. Each box is divided into three columns; the third column is subdivided into two smaller boxes. Each box refers to a specific content (treatment diagnosis) and particular broadcast format (spots). Column one indicates the number of different programs produced on a given component area for the total six-month phase in question. The second column gives the number of different programs broadcast on a weekly basis, and the third column, the number of daily transmissions for the spots and weekly transmissions for the programs. The top portion of the third column gives the number of transmissions on national radio stations, and the bottom box, the number of transmissions on regional radio stations.

GRAPH #12 PHASE I MESSAGE DISTRIBUTION

		BROADCAST RADIO				GRAPHICS			SUPPORT VISUALS		TRAINING	
		SPOTS	MOTHER OF THE WEEK	NEWS	MINI NOVELLA	POSTERS	CALENDAR	MINI RADIO NOVELLA	FLIP CHART	POSTER	PHAMPLET	
TREATMENT	ACCEPTANCE	4	1	2	2	1	2		1 FLIP CHART	1 POSTER	1 PHAMPLET	SEMINARS FOR PHYSICIANS · NURSES · ADV · GUARDIANS
	DIAGNOSIS				5	1	2					
	PROCUREMENT											
	MIXING											
	ADMINISTRATION											
	RECOVERY											
	SEEK HELP											
(ADDITIONAL MESSAGE CONCEPTS)												
	• ANTIBIOTICS/DRUG THERAPY			2	1							
	• FIXED FACILITY REGIMEN											
	• TEACHING BEHAVIOR											
PREVENTION	• PRE-REQUISIT CONCEPTS	1	2	2				2				
	• BREASTFEEDING	2	1	2				1				
	• FOOD PREPARATION			5	1	1						
	• PERSONAL HYGIENE				1							

GRAPH #13 PHASE II MESSAGE DISTRIBUTION

		BROADCAST RADIO				GRAPHICS			SUPPORT VISUALS		TRAINING	
		SPOTS	MOTHER OF THE WEEK	NEWS	MINI NOVELLA	POSTERS	CALENDAR	MINI RADIO NOVELLA	FLIP CHART	POSTER		
TREATMENT	ACCEPTANCE	2	1	2	2	1	2		1			
	DIAGNOSIS	4	2	2	1	1	2			1		
	PROCUREMENT	4	2	2	1	1	2					
	MIXING	8	1	1	1	1	2			1		
	ADMINISTRATION	4	2	5	1	1	2	1	1			
	RECOVERY	4	2	2	1	1	2					
	SEEK HELP											
(ADDITIONAL MESSAGE CONCEPTS)												
	• ANTIBIOTICS/DRUG THERAPY			5					2			
	• FIXED FACILITY REGIMEN								2			
	• TEACHING BEHAVIOR											
PREVENTION	• PRE-REQUISIT CONCEPTS											
	• BREASTFEEDING	2	1	2	1	1	2		2			
	• FOOD PREPARATION	3	1	1	1	1	2					
	• PERSONAL HYGIENE	3	1	1	1	1	2					

KEY: SPOTS

NUMBER of different programs on this topic during this phase.	NUMBER of different programs per week.	NUMBER of broadcasts on National radio per day.
		NUMBER of broadcasts on Regional radio per day.

KEY: MOTHER OF THE WEEK & MINI-RADIO NOVELLA

NUMBER of different programs on this topic during this phase.	NUMBER of different programs per week.	NUMBER of broadcasts on National radio per week.
		NUMBER of broadcasts on Regional radio per week.

GRAPH # 14

BROADCAST SCHEDULE CONTROL SHEET

PHASE II JUNE 8-14	MONDAY					TUESDAY					WEDNESDAY					THURSDAY					FRIDAY					SATURDAY					SUNDAY					Wkly SPOT TOTALS						
	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E							
ACCEPTANCE			X	X	X	X		X ²	X	X	Y	X	X	X	X	X		X	X	X			X	X	X					X	X	X			X	X	27					
DIAGNOSIS + PROCUREMENT	X		X	X ¹	X ¹	X	X	X	X	X ³		X	X ²	X ¹	X ¹	X	Y	X	X ³	X ¹	A	Y	X ²	X ¹	X ¹					X	X	X	Y	X	X ³	X ¹	X	X	X	X ¹	X ¹	61
MIXING, ADMIN, RECOVERY, SEEK HELP	X	Y	X	X ¹	X ¹	X	Y	X	X ³	Y ³	X	Y	X ²	X	Y ¹	Y	Y	X	X ³	X ¹	X	Y	X ²	X ¹	Y ¹					Y	X	Y	X	X ²	X ¹	Y ¹	X	Y	X	X	Y	64
BREAST- FEEDING	X	X	X	X	X	X			X ³	X	X	X	X	X	X	X		X	X	X	Y	X	X	X	X		X	X	X	X						Y	X	X	X	30		
FOOD PREPARATION	X	X	X	X	X			X	X	X	X			X	X			X	X	X	X			X	X	X		X	X	X	X	X			X	X	X	X	X	X	25	
PERSONAL HYGIENE			X	X	X	X	X	X	X	X			X	X	X	X	X	X	X			X	X			Y	X	X	X				X	X	X	X	X	X	24			
DAILY TOTAL	4	3	6	10																																231						

X or Y = A single spot
 X² or Y² = A single spot repeated twice during the day
 A - E = Each letter represents different radio stations.

R.N. Radio Novella
 MOW Mother-of-the-Week

The decision has been made to emphasize the distribution of graphic materials and one or two qualitative aspects of the radio programming. Less attention will be given to ensuring that radio broadcast schedules are being complied with, but local monitoring will be used to provide monthly information on radio station compliance with contracted broadcast schedules.

Regular monitoring will be carried out through three basic activities: a Materials Distribution Control System, the "Mother of the Week" program, and continued focus group analysis and pretesting of materials. The Materials Distribution Control System will be administered by the MOH audiovisual coordinator and will consist of a graphic record, by community and date, of all print and packet materials distributed. The system will include two sources of information: records of materials distributed during the seminars, and ten monthly cables from randomly selected sites on present availability of materials and packets. These sites will change from one campaign phase to another to ensure region wide coverage. Health centers will not be asked to collect additional statistical information but simply report on present stocks of selected materials.

Special attention will be given to rural areas, but information will be collected on mailings and seminar distribution to medical and paramedical personnel as well. A monthly review of this control chart will be directed by the audiovisual coordinator and priority distribution areas established for the next month. These priorities will be fed into the "Mother of the Week" trip scheduling. This mobile troupe will help compensate for distribution to areas where the primary system is failing, through direct distribution of missing materials.

The "Mother of the Week" (MOW) program will also be used as an information collection tool. Several of the radio broadcasts will include tag lines which will be used to track program acceptance in rural communities. Prior to each visit, the MOW team will incorporate these tag lines in a series of short questions posed to randomly selected members of the community being visited. Results will provide information on whether programs are being received and on the impressions rural people have of their content. These results will be fed into the final monitoring activity: focus group and pretesting of materials.

Issues identified during the MOW visits will be used to structure new focus group sessions. These groups proved very useful during the developmental investigation, providing a quick but reliable way to explore specific topics. In some cases, the concerns identified by the MOW team will be better treated through continuing rounds of pretesting. Because pretesting will go on during all four campaign phases, rural groups will be available to check out unanticipated instructional concerns with speed and efficiency.

This internally operated feedback system will be supported by regular information from the evaluation contractor. It is proposed that this information be received in three stages. After each collection period, the evaluation contractor will prepare a brief, subjective narrative of the findings based upon quick review of the data. Within one month, the first tabulated results of

critical items like radio reception and materials distribution information will be provided and within two months of the data collection period, an analysis of findings will be provided. This staged delivery should help reduce the time lag between collection and analysis of data and provide the implementation contractor with timely, and hopefully, useful information.

SECTION III.

IMPLEMENTATION PLAN SCHEDULE

The following planning schedule defines the basic activities to be developed during each of the four phases of project activity. More detailed information is provided on the first two phases of program activity because it is expected that the results of these two phases will feed into a major program review scheduled for the end of Phase II. This review will result in detailed planning for the final two phases of the campaign. In addition to defining activity schedules, the principal person responsible for each activity has been identified. It should be stressed that this individual is not fully responsible for executing the specific activity, but rather is responsible for supervising its proper implementation.

GRAPH #15

KEY TO THE FOLLOWING SCHEDULE GRAPHS



Design and Development of Pilot Programs and Materials



Pilot Testing and Product Testing



Large-Scale Production and Printing



Dissemination/ Broadcast or Distribution

PHASE I ACTIVITIES

SMALL DIARRHEAL PEAK

NOV. DEC. JAN. FEB. MARCH

A. Message Development

- 1. Focus Group
- 2. Message Statements

B. Radio Spots

- 1. Identify Producer
- 2. Acceptance (4)
- 3. Prerequisite Concepts (4)
- 4. Breastfeeding (2)

C. Mother of the Week

- 1. Pilot Test of Programs (1)
Develop Pilot Materials
Visit 1 community
- 2. Village Visits
- 3. Broadcast Program (5)

D. Radio Role-Play (Accept and Diagnostics)

- 1. Identify Producer
- 2. Acceptance and Diagnostics (5)

E. News Items

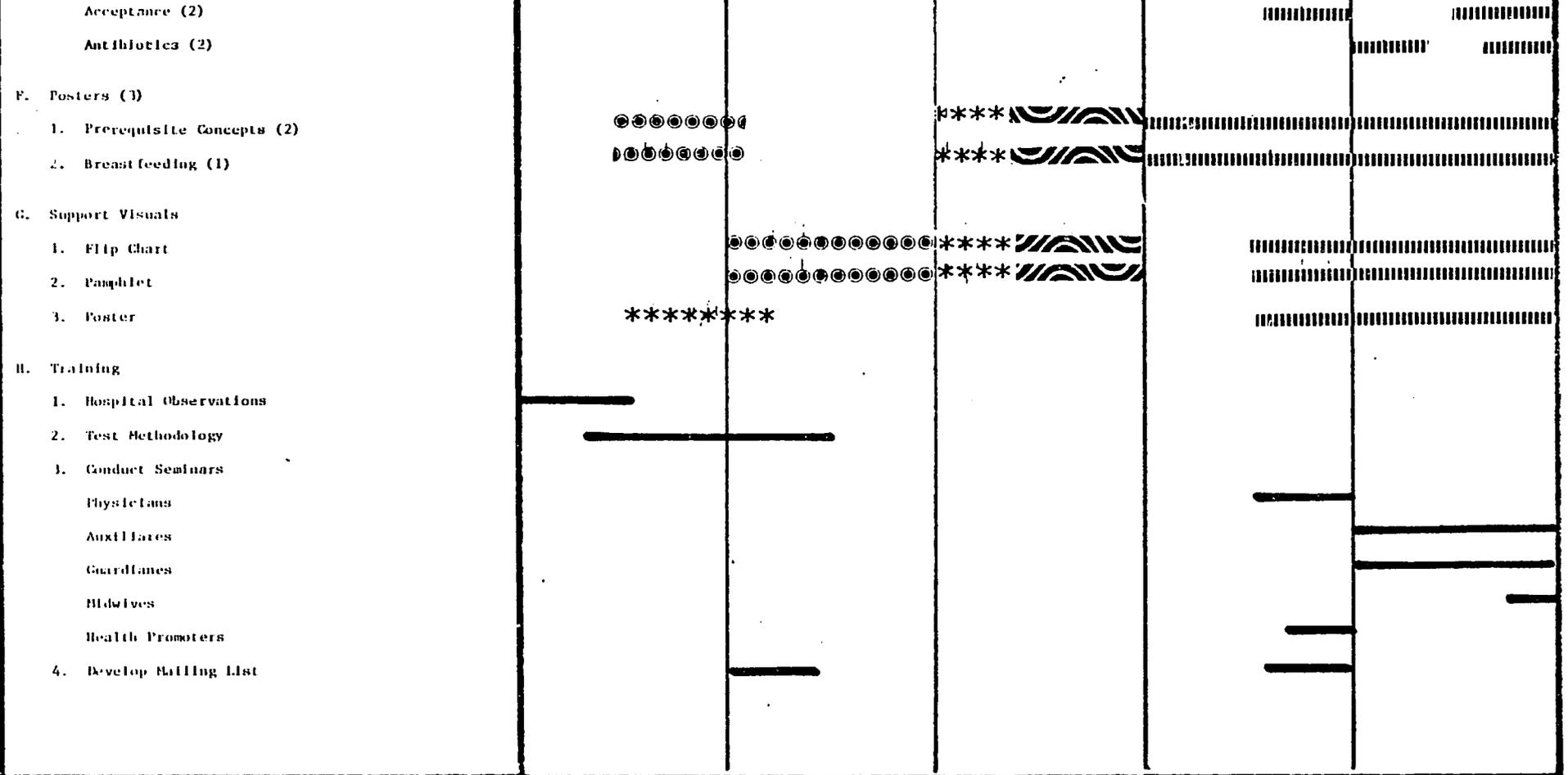
- 1. Identify Themes/Write Articles
- 2. Broadcast Items



PHASE I ACTIVITIES

SMALL DIARRHEAL PEAK

NOV. DEC. JAN. FEB. MARCH



PHASE I ACTIVITIES

SMALL DIARRHEAL PEAK

NOV.

DEC.

JAN.

FEB.

MARCH

1. Campaign Monitoring

1. Telegrams

2. Mother of the Week

3. Broadcast Schedules

●●●●●●

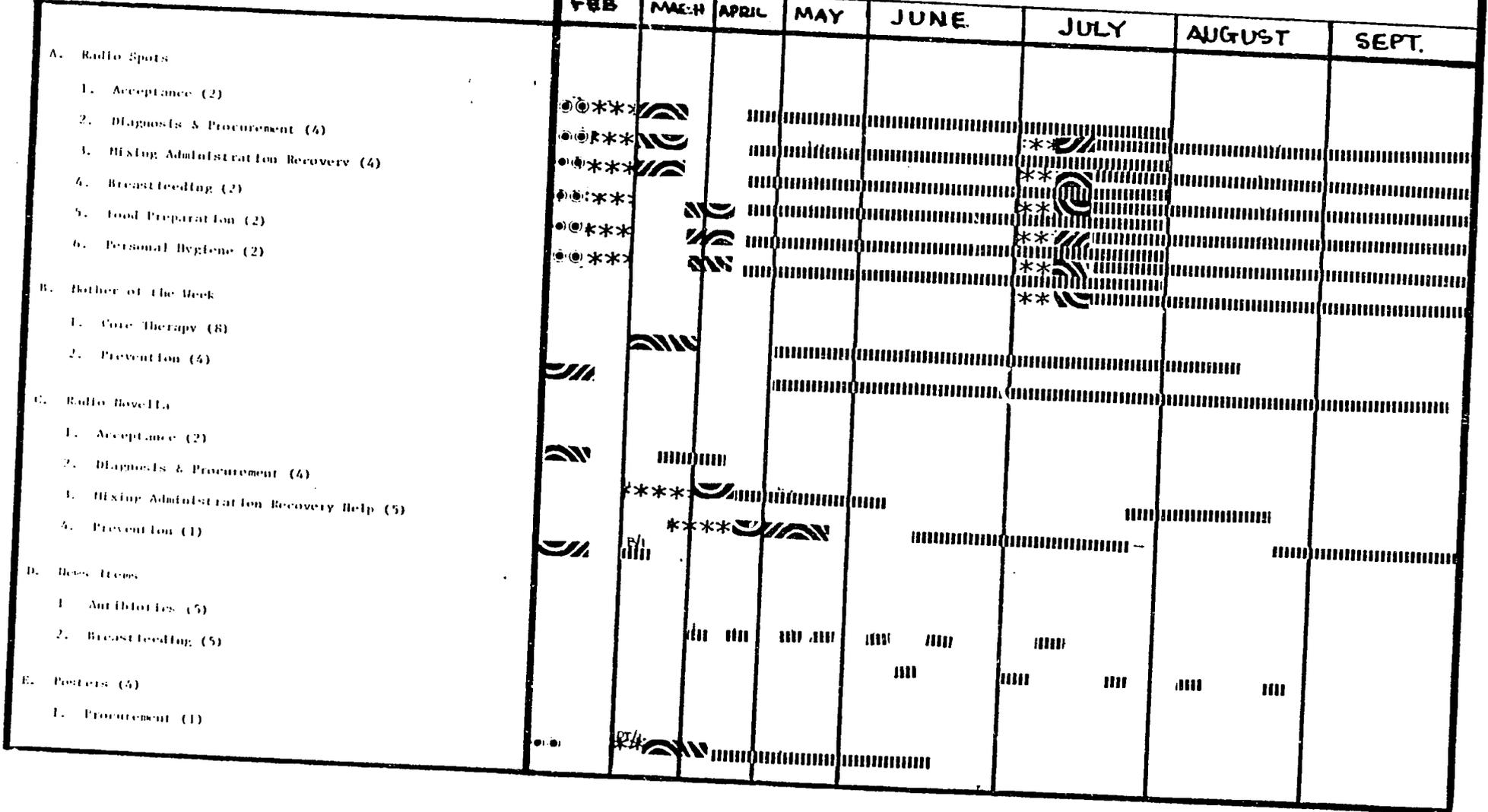
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●●●●●●

PHASE II ACTIVITIES

DIARRHEAL PEAK



PHASE II ACTIVITIES

DIARRHEAL PEAK

	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPT.
2. Mixing Administration Recovery (1)		***						
3. Food Preparation (1)		***						
4. Personal Hygiene (1)		***						
F. Mifal Novella (1)			***					
1. Core Therapy	●●●●		***					
G. Calendar (1)			***					
Administration	●●●●	***						
H. Pamphlets (2)			***					
1. Diagnosis	●●●	***						
2. Mixing Administration		●●●	***					
I. Training								
1. Ballings	-	-	-	-	-	-	-	-
2. Guardians Visits		-	-	-	-	-	-	-
3. Midwives		-	-	-	-	-	-	-
4. Auxiliaries		-	-	-	-	-	-	-
J. Campaign Bulltoring								
1. Telegrams		-	-	-	-	-	-	-
2. Mother of the Week		-	-	-	-	-	-	-
3. Broadcast Schedules		-	-	-	-	-	-	-

PROJECT STAFF RESPONSIBILITIES

Graph #16 illustrates the distribution of staff responsibilities among both MOH and technical assistance personnel. The key players are:

- Dr. Arturo Zelaya - Director of Health Education, MOH
- Ms. Miriam Martinez - Trained nurse, contracted by MOH for this project
- Dr. Reynaldo Pareja - AED Field Coordinator
- Ms. Elizabeth Booth - AED Assistant Field Coordinator
- Mr. Hector Valledares - Graphic Arts Specialist, contracted by MOH for this project
- Lic. Luis Sarmiento Health Education Officer, MOH

Dr. Zelaya will have overall responsibilities for guiding and approving project activities. His principal responsibility will be to interface with other MOH offices and to ensure that the program is consistent with the Ministry's overall health priorities.

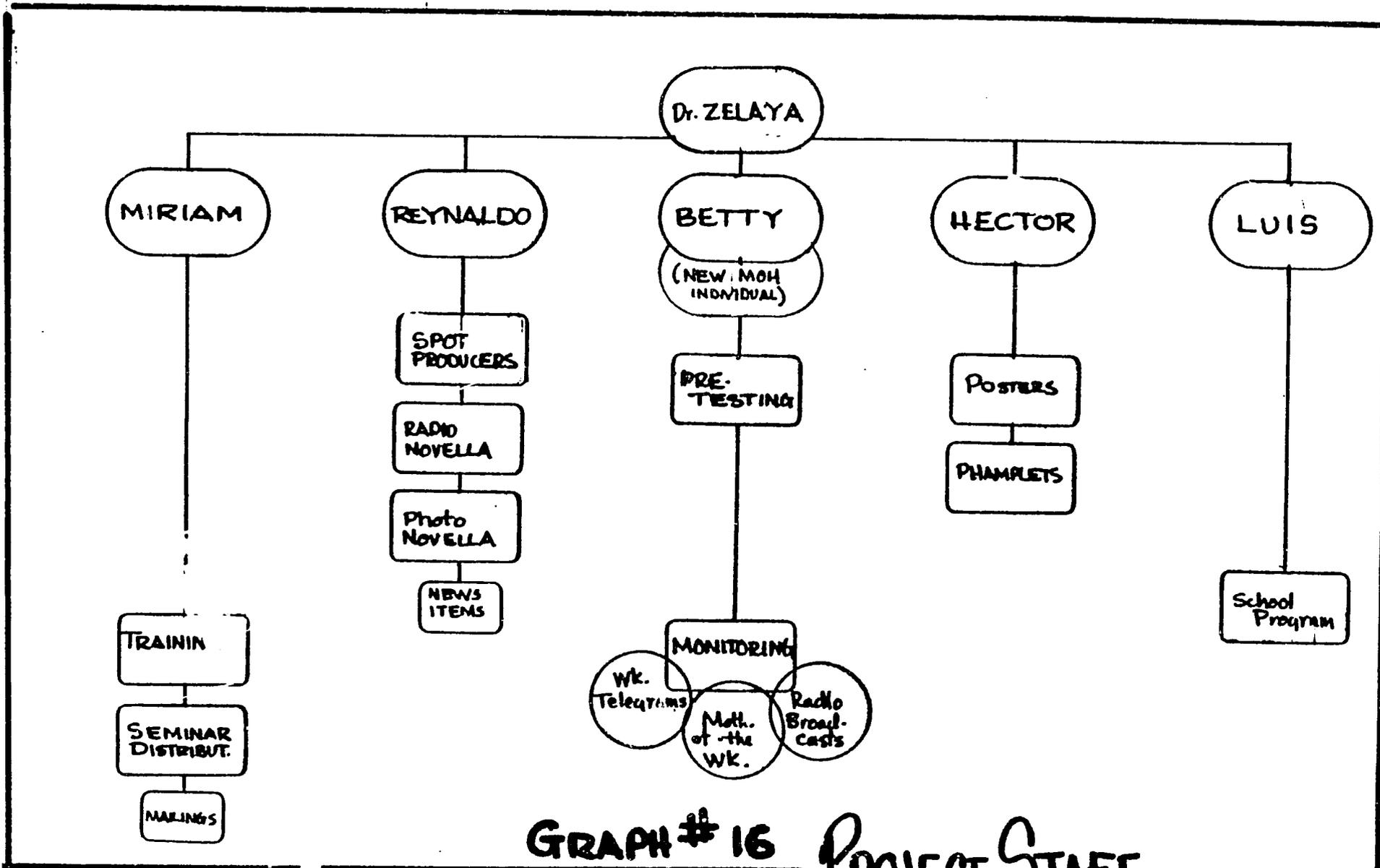
Ms. Martinez will take principal responsibility for the health personnel/training component and oversee the distribution activities associated with the regular seminar for guardianes as well as the mailings to professional medical personnel.

Dr. Pareja, in addition to overall administration of the technical assistance effort, will take responsibility for coordinating radio program production. This requires managing the three local groups contracted to produce spots, radio novellas, and fotonovelas as well as preparing the regular news items for radio and TV.

Ms. Booth will coordinate the pretesting and product testing of materials. Working closely with the program producers and especially with the "Mother of the Week" team, she will assist the new MOH counterpart in organizing, conducting, and analyzing the field testing results. Finally, she will be responsible to see that suggested revisions are incorporated into new materials.

Mr. Valledares will direct the graphic production of posters and pamphlets. He will prepare the initial designs himself, incorporate revisions from pre-testing, and coordinate final printing with local commercial firms or within the MOH facility.

Lic. Sarmiento will have primary responsibility for the school-related programs. His contacts within the Ministry of Education, coupled with his understanding of the rural educational system, will permit him to direct this important aspect of project activity.



GRAPH # 16 PROJECT STAFF RESPONSIBILITIES

APPENDIX A

ESTIMATED COSTS FOR MAJOR CAMPAIGN COMPONENTS

PROJECTED PRODUCTION COST/HONDURASI. BROADCAST MEDIAA. Production

1. 52/30 second spots @ \$400 each	\$20,800
2. 6 months of MOW @ \$1,300 a month	7,800
3. Radio-Novellas	5,000
4. News Items (no cost)	

B. Broadcast Time*

20 months @ \$1,631 a month (see attached)	<u>32,620</u>
	66,220

II. PRINT MEDIA

MOH Broadcast Time	-	20,000
		<u>\$46,220</u>

A. Production**

1. Poster (1) @ \$3,000	3,000
(2) @ \$4,375 for 5,000 copies	8,750
2. Mini-Novella (2) @ \$5,625 for 5,000 copies	11,250
3. Calendar (2) @ \$10,500 for 10,000 copies	21,000
4. Pamphlets (2) @ \$4,125 for 15,000 copies	8,250
5. Flip Chart (no cost)	

Total	<u>\$98,470</u>
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* See page A-2

** See page A-3

ACTUAL RADIO BROADCAST COST

I. Emisoras Unidas (Monday thru Saturday)

HRN

1 30 sec. spot daily	8 - 8:30 am	Reportero Fisgon	\$125/mo.
1 30 sec. spot daily	9 - 11:00 am	Prensa del Aire	96/mo.
1 30 sec. spot daily	4:30 pm	Lico y Pancho	105/mo.
1 30 sec. spot daily	5:00 pm	Prensa del Aire	105/mo.

Radio Centro

1 30 sec. spot daily	9:00 am	Novella	88/mo.
1 30 sec. spot daily	9:30 am	Novella	88/mo.
1 30 sec. spot daily	10:30 am	Novella	88/mo.
1 15 min. program - Saturday - 2 - 2:15 pm			61/mo.

II. Audio Video (Monday thru Saturday)

Radio America

1 30 sec. spot daily	7:15 am	Los Barberos	750/mo.
1 30 sec. spot daily	8:00 am	Casos y Cosas	
1 30 sec. spot daily	8 - 10:00 am	Banderin Numerado	
3 30 sec. spots daily	2:00 pm	Hermandos Mejia	

Radio Sonora Danli

10 spots daily
2 spots daily

III. Radio Oriental

10 spots daily	50/mo
15 min. program daily	<u>75/mo.</u>

Total \$1,631/mo.

52

PRINTING COST/HONDURAS

	Quantity		
	5,000	10,000	15,000
1. Posters 17 1/2" x 23" 4 colors	\$4,375	7,500	\$10,500
2. Pamphlets 4 pages/5 colors	1,750	2,900	4,125
3. Fotonovelas Color Cover/8 pages B+W	5,625	11,000	15,000
4. Calendars 12 pages/2 colors/17 1/2" x 23"	5,625	10,500	24,250

BASIS FOR ESTIMATING GRAPHIC MATERIAL NEEDS

Estimated Total Population in Region I	400,000
Average Family Size	÷ <u>5</u>
Estimated Number of Households	80,000
Percent of Households with Women of Child-bearing Age or with Infants Less than 5 Years Old.	x <u>80%</u>
Estimated Number of Target Households	<u>64,000</u>

Potentially:

Mini-Novellas could be distributed to	15% of Target Households
Calendars could be distributed to	30% of Target Households
Pamphlets could be distributed to	48% of Target Households

ESTIMATED NUMBER OF DISTRIBUTION POINTS FOR POSTERS

Fixed Health Facilities	- 73 x 5 posters	365
Schools	- 100 x 5 posters	500
Health Workers	- Guardianes 164 x 5 posters	820
	- Representatives 60 x 3 posters	300
	- Parteras 698 x 3 posters	2,094
Pulperias	- 800 x 3 posters	<u>2,400</u>
		6,479 posters

57

ESTIMATED NUMBER OF PACKETS NEEDED FOR ONE YEAR SUPPLY

	# of Facil.	Average Monthly Incidents Reported	3 Packets Per Episode	2 Packets Per Episode
CHE	1	600 x 2* = 1,200	3,600	2,400
CESAMO	11	500 x 2* = 1,000	33,000	22,000
CESAR	61	250 x 2* = 500	91,500	61,000
GUARDIANES	164	100	49,200	32,800
PARTERAS	698	100	209,400	139,600
PULPERIAS	400	100	120,000	80,000
Total for 1 year			506,700	337,800

* Reported incidents have been multiplied by 2 to compensate for under-reporting and to include less severe cases which may be treated due to increased media attention.

APPENDIX B

COMPLETE LIST OF PREVENTION BEHAVIORS CONSIDERED

COMPLETE LIST OF PREVENTION BEHAVIORS CONSIDERED

I. BREASTFEEDING/BOTTLE-FEEDING

1. Stop use of infant formula.
2. Prepare infant formula correctly, (series of actions).
3. Breastfeed infant as much as possible.
4. Bottle-feeding is dangerous to infant if it is not mixed with the right amount of water.
5. Bottle-feeding is dangerous unless mother boils all water she uses to make formula.
6. Bottle-feeding is only easier if it is not prepared correctly.
7. Infant has special health needs.
8. Water can be dangerous to infant because animalitos are especially dangerous to him.
9. Breast is best, safest for children.
10. Bottle-feeding is dangerous unless bottle, water, and nipple are boiled before each use.
11. Colostrum is like a vaccination for the infant (la primera vacuna).
12. Because breast is best, feed more often.
13. A good mother will nurse her child at least four times a day and her infant at least six times a day.
14. Infants should only get breast milk until they are six months old and then continue getting the breast with other foods until 12 or 18 months.
15. Mothers need to eat well when they are breastfeeding.
16. Increased amounts of foods, particularly eggs, are good for breastfeeding mothers.

II. FEEDING PRACTICES

17. Do not feed cuajada to children after it has been stored for more than one day.
18. Do not give beans to infants because they are difficult to digest.

III. FOOD PREPARATION

19. Heat kills animalitos
20. Reheat tortillas before giving to child/infant.
21. Reheat frijoles in small frying pan and give to child warm.
22. Reheat soup in small frying pan and give to child warm.
23. Reheat rice in small frying pan and give to child warm.
24. Reheat cow's milk after 4 hours before giving to child/infant.
25. Wash mango before giving to child/infant.
26. Peel fruit before giving to child/infant.
27. Boiled water given to infants should be stored in a covered jar, out of children's reach.
28. Boil all water used for infants.
29. Reheat bean soup before giving to child.
30. Discard teas given to child after child finishes.

IV. FOOD STORAGE

31. Keep tortillas covered with cloth when not eating.
32. Keep cooked frijoles covered when stored.
33. Keep soup covered on stove but not directly on burner.
34. Keep cooked rice covered when stored.
35. Store cow's milk in a bottle with top.
36. Store cuajada in tight covered container.
37. Do not store food for infants, always make it fresh.
38. Keep water covered.

V. PERSONAL HYGIENE (MOTHER AND INFANT/CHILD)

39. Mother washes her hands with soap before preparing food for children/infants.
40. Mother washes her hands with clean water before preparing food for children/infants.
41. Mother washes her hands in clean water frequently while making tortillas.

42. Mother washes her hands before feeding infants.
43. Mother washes her hands before serving foods.
44. Mother washes her breast at least three times a day if breastfeeding.
45. Mother cuts her fingernails once a week.
46. Mother cuts fingernails of older siblings and washes their hands before giving foods to infants.
47. Increase volume of water used to wash hands.
48. Increase number of times mothers wash hands.
49. If you use soap, your hands will become cleaner.
50. Wash hands after defecating.
51. Wash hands before preparing meals for infants.
52. Mother washes children/infants hands before she/he eats at meals.
53. Keep separate bowls of chlorinated water to wash hands in.
54. Wash hands frequently with soap while making tortillas.

VI. HOUSEHOLD HYGIENE

Utensils:

55. Wash container in which water is kept (with chlorine).
56. Wash container that water is carried in with soap after emptying.
57. Wash spoon that is used to cook beans with soap.
58. Wash pot that is used to cook beans.
59. Keep infant's spoon and other utensils separated from family utensils.

Others:

60. Store diapers in a covered spot and out of children's reach.
61. Store diapers as soon as they are changed.
62. Build a corral for infant as soon as he/she begins crawling, and leave child there when not with mother.
63. Put door/gate on kitchen door to keep animals out,
64. Wash bedpan every morning with chlorinated water or soap and water.

- 65. Mother should have a special towel to use.
- 66. Bury excrement away from home and water service.
- 67. Do not defecate near water source.
- 68. Encourage infant to tell mother after defecating.

VII. ENABLING KNOWLEDGE

- 69. Child/infant is different from adult, must be given special treatment.
- 70. Heat kills animalitos (bichos, lombrices, etc.).

VIII. Water Use:

- 71. How to keep animalitos from children by washing.

Child Care:

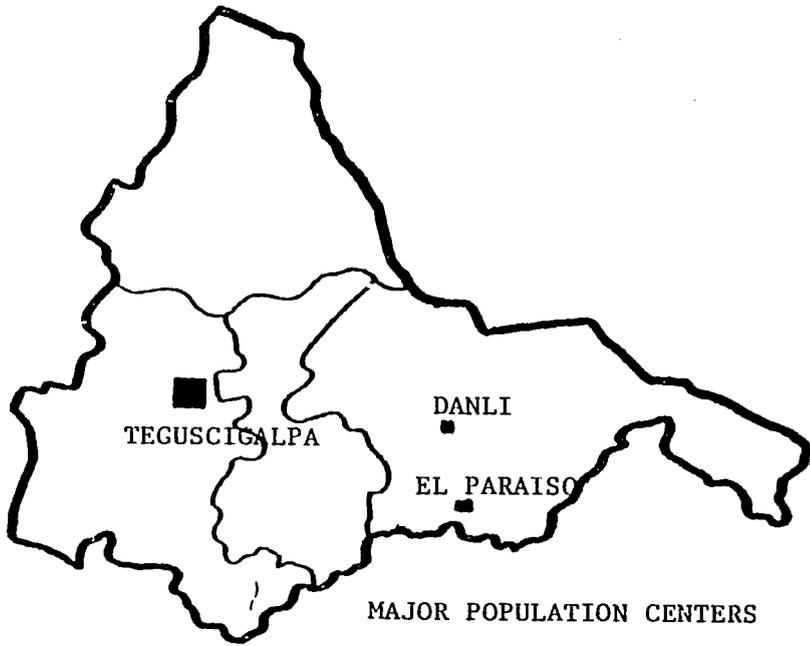
- 72. Ways child can be protected from animalitos.
- 73. Infant is different from young child, needs even more care.

APPENDIX C

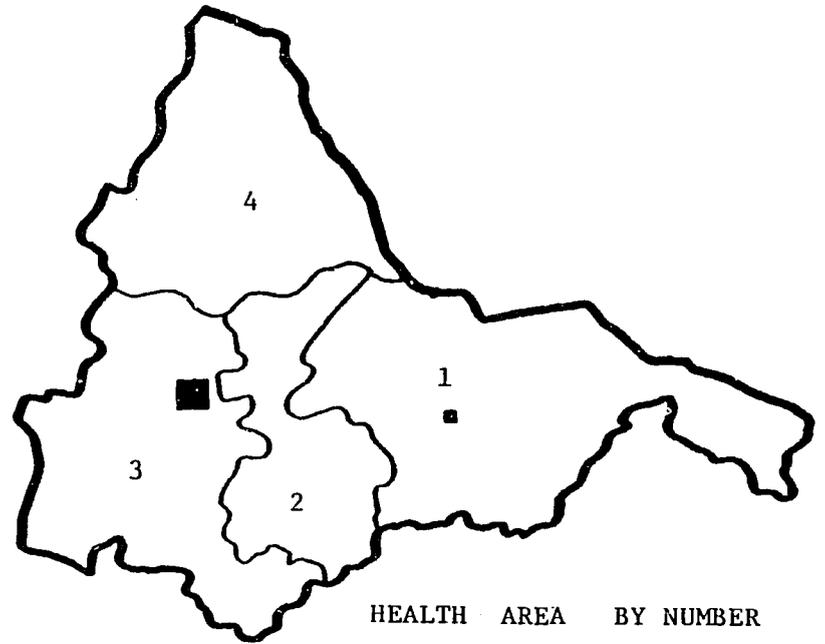
BACKGROUND INFORMATION ON HEALTH REGION I

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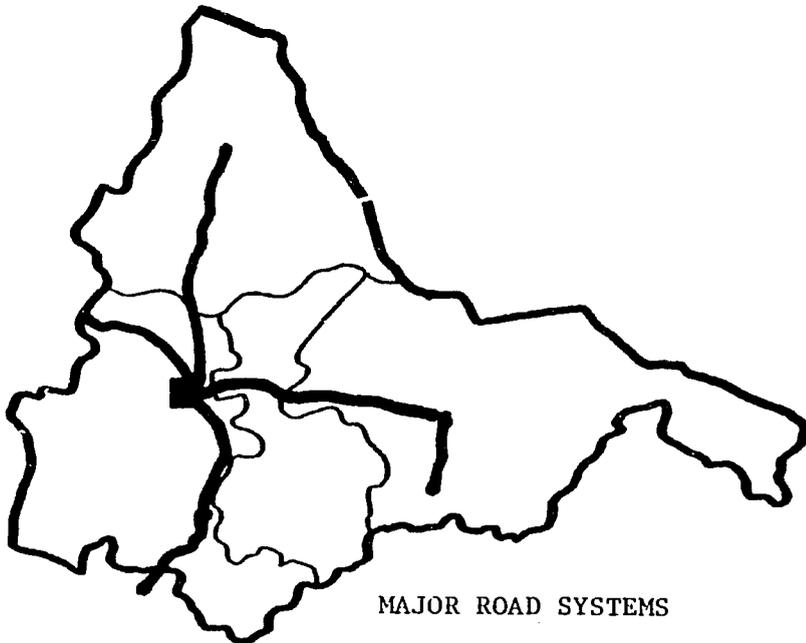
The maps on the following two pages illustrate the geographical distribution of important characteristics within Health Region I. The map is of Health Region I exclusively and is subdivided into the four administrative health areas used by the Ministry. The city of Tegucigalpa is included within the region geographically but not administratively. The municipality of Tegucigalpa is included in Health Region I administratively. The figures provided exclude the city of Tegucigalpa but include the municipality of Tegucigalpa.



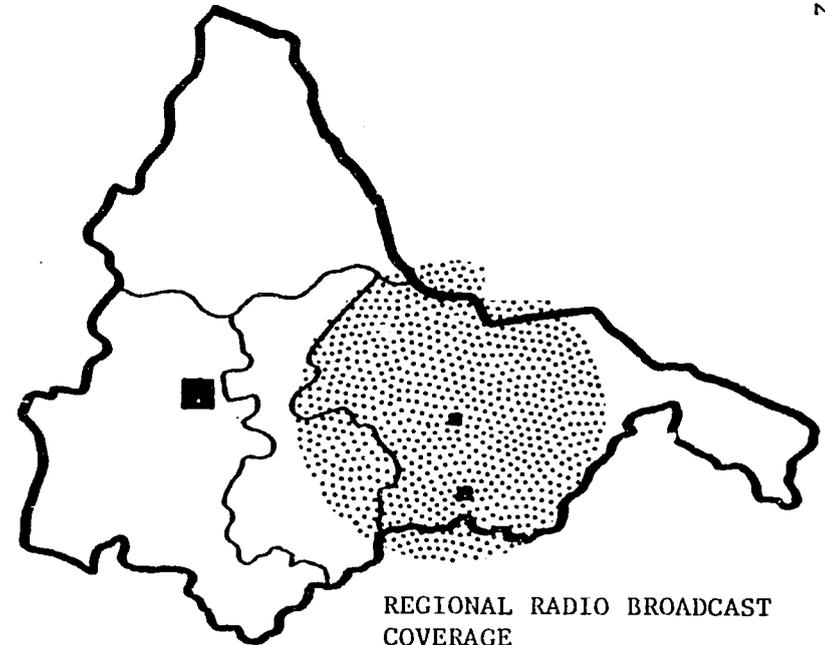
MAJOR POPULATION CENTERS



HEALTH AREA BY NUMBER



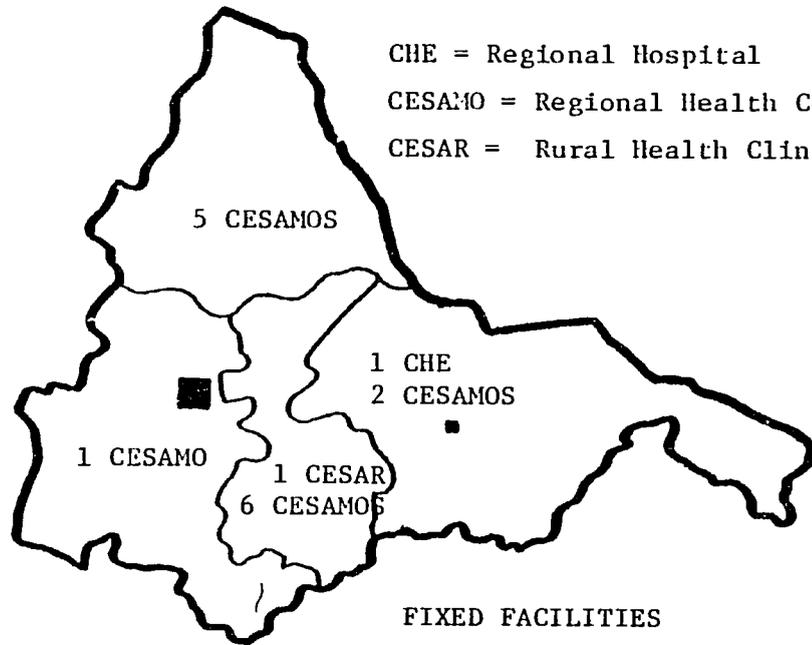
MAJOR ROAD SYSTEMS



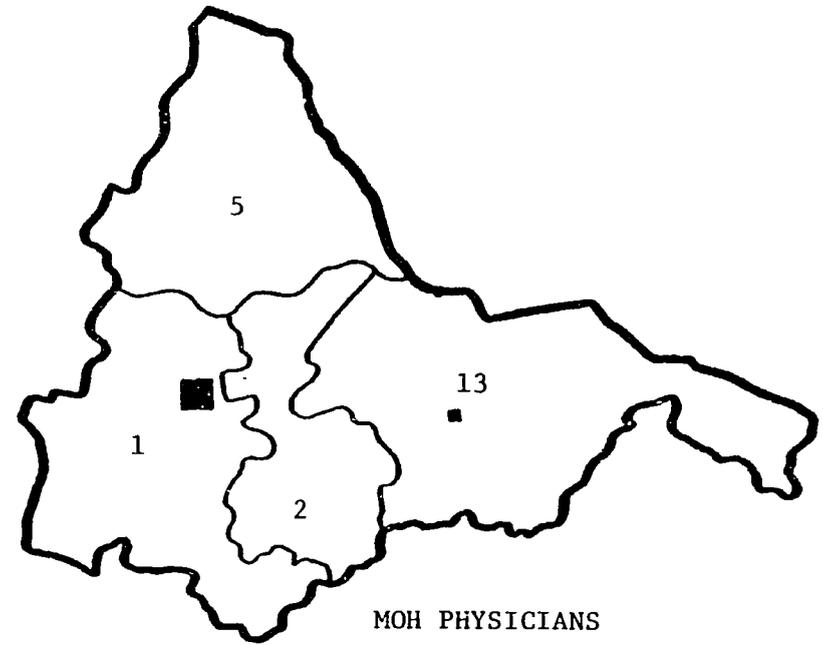
REGIONAL RADIO BROADCAST
COVERAGE

20

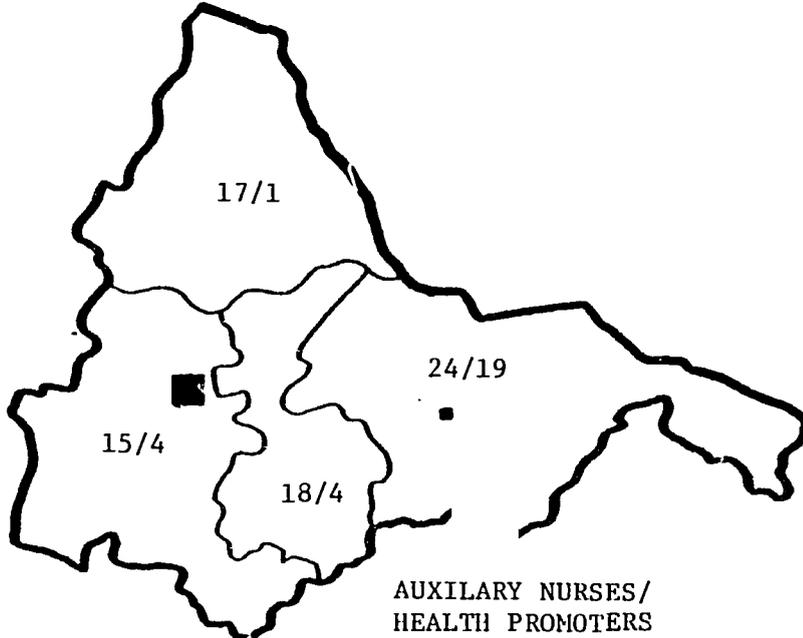
CHE = Regional Hospital
 CESAMO = Regional Health Center
 CESAR = Rural Health Clinic



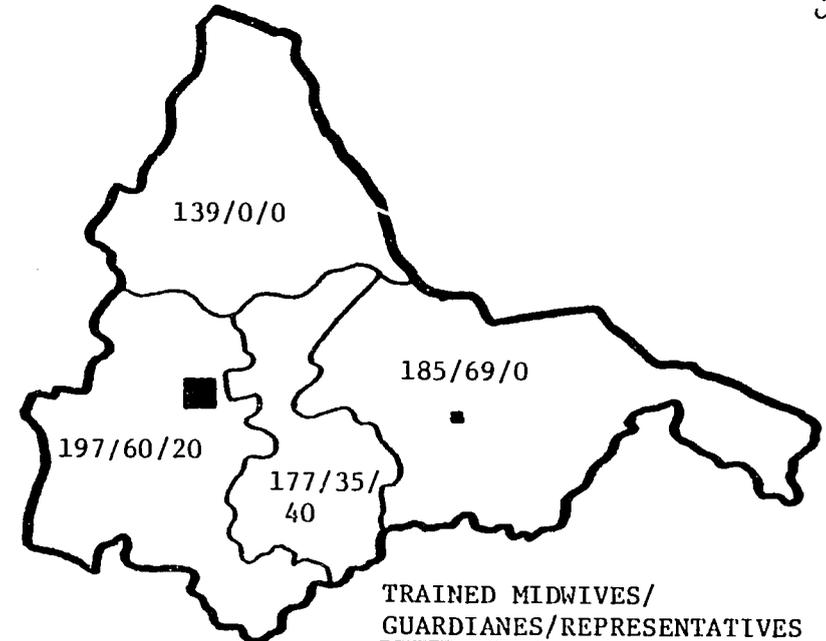
FIXED FACILITIES



MOH PHYSICIANS



AUXILARY NURSES/
HEALTH PROMOTERS



TRAINED MIDWIVES/
GUARDIANES/REPRESENTATIVES