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SEMIANNUAL REPORT No. 6

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SECTION I

BACKGROUND

On September 30, 1978, the Academy for Educational Development was contracted by the Offices of Health and Education of the Science and Technology Bureau (ST/H, ST/ED) of the United States Agency for International Development (AID) to implement a five-year project for the prevention and treatment of acute infant diarrhea in the rural areas of two developing countries. Simultaneously, Stanford University was contracted to evaluate the project.

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

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

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

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

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

This report represents a six-month review of project activities in all three components of the project: MM&HP, Honduras; MM&HP, The Gambia; and W&S, Honduras.

SECTION II

PRINCIPAL OBJECTIVES ESTABLISHED FOR THIS PERIOD

The following objectives are taken directly from Semiannual Report No. 5 and constitute the activities originally projected for the period covered by this Semiannual Report No. 6.

A. HONDURAS

Phase I of the implementation plan will be completed and Phase II of the broadcast campaign initiated. Training will continue for health professionals, village health workers, and the alcaldes auxiliares (auxiliary mayors).

B. THE GAMBIA

Mr. Rasmuson will arrive in The Gambia and begin the developmental investigation phase of project activity. It is expected now that this phase should take three to five months after which an implementation plan will be developed for the education campaign. This implementation plan will be reviewed, submitted to AID, and subsequently, to the Academy's Institutional Review Board for approval.

C. WATER AND SANITATION COMPONENTS

An implementation plan for the education activity will be submitted to the MOH and USAID/Honduras for their approval. Execution of the plan will begin as soon as approval is received.

SECTION III

ACTIVITIES UNDERTAKEN

A. HONDURAS

This reporting period marks the intensive initiation of campaign activities in Honduras. The initial research and planning phases have been completed. The official campaign was inaugurated on March 1, 1981, with the first series of radio broadcasts. As specified in the implementation plan, the campaign is divided into four sequential phases--Phase I (March 1 to June 26, 1981) used media to develop general awareness of the diarrhea problem and stressed critical prevention behaviors. Phase II (June 26 to November 1, 1981) is timed to coincide with the principal rainy season and the highest period of diarrheal episodes during the year and is stressing treatment behaviors related to the acquisition, mixing, and administration of an oral rehydration therapy (ORT). Phase III (November 2, 1981, to May 30, 1982) will return to an emphasis on prevention behaviors, at the same time that selected treatment messages will be continued to sustain the learning gains achieved during Phase II. Finally, Phase IV (June 1, 1982, to February 28, 1983) will return to a full-scale promotion of treatment behaviors, building upon all that has been learned from the previous three phases to permit mid-campaign adjustments in programming, training, print materials, distribution systems, and production cycles. This information is an integral part of the systematic approach to campaign development being fostered through the MM&HP program.

1. Review of Specific Campaign Activities in Honduras

The following section outlines the principal campaign activities implemented during this reporting period. In most cases, information has been summarized in a series of graphs and figures which illustrate the extent to which campaign plans have been implemented.

a. Packet production, distribution, and utilization

The following graph illustrates the degree to which packets of oral rehydration salts have been produced and distributed during the period. These packets represent the principal "product" being promoted in Health Region I, the primary site of project activity in Honduras. The packets are small aluminum and polyurethane envelopes containing a mixture of sodium, potassium, glucose, and bicarbonate in proportions recommended by the World Health Organization (WHO). These salts do not "cure" diarrhea, but when properly administered, they do prevent death from diarrheal dehydration and permit the child to recover naturally from the diarrheal episode. They are being locally produced by the Honduran National Pharmacological Laboratories (PANI) and distributed free by the Ministry of Health. One preliminary measure of the program's overall effectiveness is the adequate production and distribution of these packets.

Population of Health Region I: 280,000

Packet Production:

Number of packets produced to date: 477,000

Number of packets produced daily: 5,000

Packet Distribution (April 1, to September 1, 1981)

	No. Units in Region	No. Units receiving Packets	No. Packets distributed on @ visit	Total No. Packets Distributed
Hospital	1	1	4,400	4,400
Health Clinic	16	16	400	18,000
Rural Health Centers	55	50	400	22,000
PHW/Midwives	670	486	100	48,000
Mayors/Aux. Mayors	1,950*	277	500**	129,800
Other				23,848
TOTAL				241,848

ORT packets, called LITROSOL in Honduras, were not used in the health system or on the commercial market prior to the campaign's initiation. Monthly surveys of selected health centers in the region indicate that most children being treated for diarrheal dehydration are receiving LITROSOL treatment. Only a few of the children are being referred to hospitals where intravenous therapy is available (see graph below).

Packet Utilization Sample

MONTH	No. Centers Reporting	NUMBER OF CHILDREN			
		with diarrhea	LITROSOL Treatment		referred to Hospital
			at Center	at Home	
May	15	379	144	227	5
June	18	469	224	393	17
July	20	515	70	447	9
August	26	1,105	193	918	7

* Estimation, exact figures are not available.

** Average.

These surveys, along with a regular monitoring system using telegraph communication to remote health centers, indicate that packet supply is at planned levels. Most packets have been distributed during training sessions for nurses, auxiliary nurses, midwives, primary health care workers (guardianes), mayors (alcaldes), and auxiliary mayors (alcaldes auxiliares). In some cases, distribution to alcaldes had to be delayed due to the large number of packets (up to 1,000) each alcalde had to distribute and the fact that most alcaldes lacked adequate transport for such large numbers of packets after the training sessions. In these cases, special distributions were made by a single truck. This caused delays of up to three months in supplying some alcaldes with packets.

Resupply is being handled through the health centers, and several distribution pilot tests are scheduled for the next phase of program implementation to determine if more reliable distribution systems can be developed. In addition, the USAID Mission in Honduras has given considerable attention to the development of an improved pharmaceutical distribution system in a recently signed Health Sector Loan. It is expected that significant improvement in the distribution system will occur within the next two years.

Appendix A includes information on ORT packet use within the principal treatment facility in the region, the Maternal-Child Hospital in Tegucigalpa. This facility serves a large number of both rural and urban women, and as the information in Appendix A shows, oral therapy has also been the preferred treatment at the top levels of the Honduran health structure.

b. Instructional themes

In addition to the production and distribution of packets, the campaign consists of three major instructional components: radio broadcasts, print materials, and health worker training. Because each is designed to complement the others, careful sequencing of each element is critical.

The overall campaign is structured around a series of instructional themes. These themes are generally divided into prevention and treatment categories, although a few themes, such as breastfeeding, include both treatment and prevention benefits. The following graph lists the principal message themes and describes the relative importance each has received in the campaign. This importance is expressed in terms of number of radio spots and songs, number of graphic materials, and a scale indicating the relative importance each theme received during the training sessions for community health workers, auxiliary nurses, and district nurses.

T H E M E S	No. Different Radio Messages on this Theme	Graphic Material	Relative Importance in Training Program *		
			Comm. Health Worker	Aux. Nurses	Dist. Nurses
PHASE I MESSAGES					
Boil all drinking water	3				
Wash hands before eating	2				
Reheat foods	3				
Dirty conditions cause disease	3				
Give special care to infants	4		1	1	0
Breastfeeding is best for infants	5	1 poster			
Give liquids to child with diarrhea	9	1 flyer 1 poster	3	3	1
Dehydration is loss of liquids during diarrhea					
Oral Therapy Clinical regimen		1 poster	0	0	3
PHASE II MESSAGES					
Use LITROSOL for dehydration	8	1 poster	3	3	2
LITROSOL restores appetite & activity	2		2	1	1
Mix LITROSOL with one liter of water	1				
Three pop bottles= one liter	1		1	1	0
Give LITROSOL every time child has diarrhea	1		1	2	1
Continue giving LITROSOL even if diarrhea cont.	1		3	3	3
Packet has full instructions	5	1 flyer 1 packet label	3	3	3
LITROSOL available at sign of the flag	4	1 flag 1 poster	3	1	1
LITROSOL available from CHW/Midwives/Mayors	1				
PHASE III MESSAGES					
Follow all instructions on packet	1	1			
LITROSOL is for dehydration	5	(1)			
Breastfeed during diarrhea	1				
Give soft foods during diarrhea	1				
Give soft foods after diarrhea. Suspend all food for one meal	1				
Give soft food after suspending all food for one meal	1				
Breast feeding is best for infants	1	(1)			
LITROSOL returns appetite and activity	4				

* Scale 0-3 0-no importance
3-very important

() Indicates re-distribution of earlier poster

c. Face-to-face training

One of the campaign's first priorities was to ensure that the health providers, both professionals and paraprofessionals, understood and could correctly apply oral rehydration therapy in fixed facilities. In addition to ORT, it was agreed that professional health providers would need to improve the advice they had previously given to mothers on infant feeding during diarrhea, use of antibiotics in the treatment of diarrhea, and breast-feeding. To achieve these goals, a training design was developed for some 1,200 health providers in Health Region I. This training program is described in detail in Field Note No. 4, but the following graph indicates the kinds and number of people trained.

TRAINING

April - September 1, 1981

TRAINEES	No. Units in Region	First Generation Training	Second Generation Training	TOTAL TRAINED
Doctors	20	23		23
Supervisors	4	4		4
Nurses	5	50*		50
Auxiliary Nurses	80	73		73
Community Health Workers/Midwives	670		486	486
Mayors	37	44		44
Auxiliary Mayors	1,913	277	300**	577
GRAND TOTAL				1,257

* Forty-five from other health regions.

** Conservative estimate.

d. Radio

Radio was given significant instructional importance in the overall development of the campaign. Program planners saw radio as providing more than just publicity for LITROSOL. Past experience had indicated that mass media could play a direct instructional role and could deliver critical instructional support to the most isolated rural families. The following graph shows the number of radio programs developed and segments them by kind of program, program phase, and whether they have a treatment or prevention focus.

Particular emphasis has been given to radio's role in supporting treatment rather than prevention messages. This is largely due to radio's unique ability to promote a new product like LITROSOL and represents the air time targeted for this one critical goal.

The discrepancy between the number of programs actually transmitted and those planned to be transmitted is due to the poor control, and somewhat cavalier approach, Honduran radio station managers take to contractual broadcast commitments. It is important to note that the chart illustrates about 80 percent compliance, a figure which is very high for Honduras. In large part, compliance is due to adept negotiation with radio station managers, based on independent broadcast control carried on by project personnel. When faced with actual evidence that broadcast commitments were not being fulfilled, station owners were apologetic and compensatory.

PHASE	No. Messages	No. Spots	No. Songs	No. Individual Transmiss.	No. of Stations		
					National	Local	
Prevention	I (118 days)	4	12	1	939* / 1173**	3	2
	II (122 days)					2	3
	III	1	1			2	3
Treatment	I (118 days)	2	7	1	4053* / 5066**	3	2
	II (122 days)	4	5	1	9231* / 11538**	2	3
	III	2	5	1		2	3

* Number actually transmitted.

** Planned to be transmitted.

e. Print and graphic materials*

The third area of campaign activity includes a wide variety of print materials. Some of these materials have been developed for small scale distribution to selected audiences like pediatricians; others have been developed for full-scale community distribution. Most have been designed to stand alone as instructional reminders to the primary target audience, rural mothers. Only the physician's chart and the instructional envelope depend heavily upon direct face-to-face instruction. The following graph illustrates that most of the graphic and print materials produced for the first two campaign phases have been distributed.

GRAPHIC MATERIAL

April 1 - September 1, 1981

	Number Produced	No. Distributed		
		Total	per Unit	
Posters {	Breastfeeding	5,000	5,000	3-44
	Dehydration	1,800	1,538	1-13
	Special Care of Young	5,000	5,000	3-44
	LITROSOL Poster	20,000		
	Sign of Dehydration Poster	1,500	1,017	1/2
	Physician Chart	1,500	144	1
LITROSOL Symbol	20,000	17,487	9-20	
LITROSOL Flag	1,500	1,166	1	
Sign of Dehydration Flyer	35,000	27,600	50	
Packet Envelope	120,000	109,000	50-200	
Packet Label	300,000	256,248		
TOTAL	511,300	424,369		

* Sample materials are presented in Appendix B.

The project has also taken advantage of the press and other means of publicity to get LITROSOL messages to the public. Sixteen radio news releases were aired during the period on major network news shows. Twelve newspaper articles dealing with diarrheal themes and seven other items of general publicity were also developed. Among these, a widely distributed lottery form used by the PANI to finance its drug production unit was particularly effective. See Appendix B for sample copies of newspaper articles.

In August, the project conducted a direct promotional campaign in Danli, the largest town in Health Region I. A booth was set up near the market area, complete with nurse, packets, and posters. Two young men dressed in large cardboard hearts labeled LITROSOL walked through the market place directing interested persons to the booth and answering questions about LITROSOL. The project vehicle was equipped with a loudspeaker used to broadcast radio spots and to direct people to the booth. Approximately 100 people stopped by, asked questions, and were given a brief demonstration of how to mix the LITROSOL. Some 480 packets and flyers were distributed.

f. Regular program monitoring

As has already been mentioned, the program includes a series of regular monitoring and formative evaluation activities. These include reports from selected sites on existing supplies of packets and instructional materials, visits to isolated health clinics and centers, interviews with visiting field personnel, regular monitoring of radio broadcasts, continued pre-testing of new materials in rural areas, and a full-scale, one week observation sweep to 38 project communities. All these activities provide important information needed to make mid-campaign corrections in educational materials and themes. An example of how pre-testing was used to trouble-shoot is included in Appendix C. In this example, a poster with an ambiguous and potentially dangerous message was quickly analyzed and tested at the village level. The test showed that the potential danger (confusion of water with Coca-Cola) was essentially non-existent.

The intensive formative investigation of communities was a more comprehensive way of looking at campaign implementation in progress. It included interviews with 37 mothers who reported using LITROSOL, 43 mothers who reported never having used LITROSOL, six auxiliary alcaldes, seven guardianes, two midwives and one health representative. In the course of a single week, it permitted project planners to investigate the following topics:

How do mothers respond to LITROSOL?

How did they first hear about it?

What problems are encountered when they apply ORT in the home?

Do mothers understand the concept of rehydration?

How do mothers use the educational materials they have received?

Which of the radio programs did mothers remember most?

Guardianes and midwives were interviewed to determine how they had used LITROSOL and what difficulties they were encountering. Several questions were added to determine if they were sensitive about mayors and auxiliary mayors playing health roles in their communities. Other questions explored were:

Were alcaldes reliable providers of packets and correct information about packet use?

How did the auxiliary alcaldes trained directly by the project compare with those trained by other alcaldes?

What problems did rural nurses have in applying and teaching the oral therapy regimen?

What distribution problems were apparent?

What kind of support materials were available, and which of these materials were most used?

A number of encouraging facts emerged from the ongoing formative evaluation. First, it appears clear that the major elements of the campaign are in place. Radio programs are being broadcast and listened to, posters are distributed and properly displayed in even isolated sites, packet supplies are sufficient, and the basic mixing and administration skills seem to be widely dispersed among the targeted health providers, both professional and paraprofessional. In terms of information, rural people contacted appear to recognize LITROSOL, know it is related to diarrhea, know where to get it, and, generally, have a positive attitude towards it. Along with these encouraging points, a number of potential problems were also identified. Several of these are only now being analyzed, and constitute questions as yet not fully formulated.

First, the messages on feeding during bouts of diarrhea were not being passed on to rural women. Strong taboos against feeding during episodes continued to be common in both the professional and traditional sectors. Secondly, the word dehydration, while widely recognized by mothers, had little real meaning for most of them. Mothers' satisfaction with oral therapy centered upon their belief that it did in fact stop diarrhea. This was true despite the fact that the campaign stressed the contrary: "LITROSOL does not stop diarrhea." One possible explanation is related to the way in which mothers were administering LITROSOL. Normally, a mother will wait for one or two days into the episode to begin any medication. This means that in many cases the child's bout, which typically lasts only three days, is about to end naturally. The mother associates the cessation as a result of the medication. This rewarding association has proven more powerful than our verbal instructions to the contrary.

It has been reported that some mothers are now giving LITROSOL earlier, on the first or second day of the bout, and becoming frustrated when the diarrhea continues. What was a fortuitous coincidence may become a major obstacle. Mothers do not seem to understand the dehydration/diarrhea distinction, and thus continue to expect a successful remedy to stop the child's watery stool. Additional information also suggested that some mothers were not giving their children the entire liter volume of solution, but administer-

ing only one-half to one-third of the bottle. Mothers stopped administration when they saw improvement, which again may be associated with giving the solution the third day of the episode.

Thirdly, it was discovered that the instructional envelope is being underutilized. Many health workers make only a perfunctory review of the envelope or stress only a few of the seven messages printed on it. Many mothers did not realize that the envelope contained instructions at all. The reverse printing on one side of the envelope also seemed confusing.

Finally, the administration regimen which recommends alternating plain water with LITROSOL proved confusing and basically unacceptable to health providers and rural mothers alike. The specific advice was to give one cup of plain water after every two cups of LITROSOL. The investigation showed clearly that this was not being done and that those interviewed did not believe it was worth the trouble or that it made any logical sense. Recent consultation with WHO officials suggests they are right.

2. Reprogramming Campaign Activities for Phase III

In the early planning stages of the project it was clear there were five potentially serious problems which had to be addressed. Would rural people:

- 1) be able to get LITROSOL when they needed it? Could an adequate production and supply system for packets be developed?
- 2) accept a remedy for a problem they did not recognize, i.e., would rural people accept a remedy for dehydration that did not also stop diarrhea?
- 3) mix the solution properly, using the proper volume of water and particularly, avoiding super-concentrated sodium solutions?
- 4) give enough of the solution, slowly, over a 24-hour period?
- 5) continue to give the solution if the child vomited?

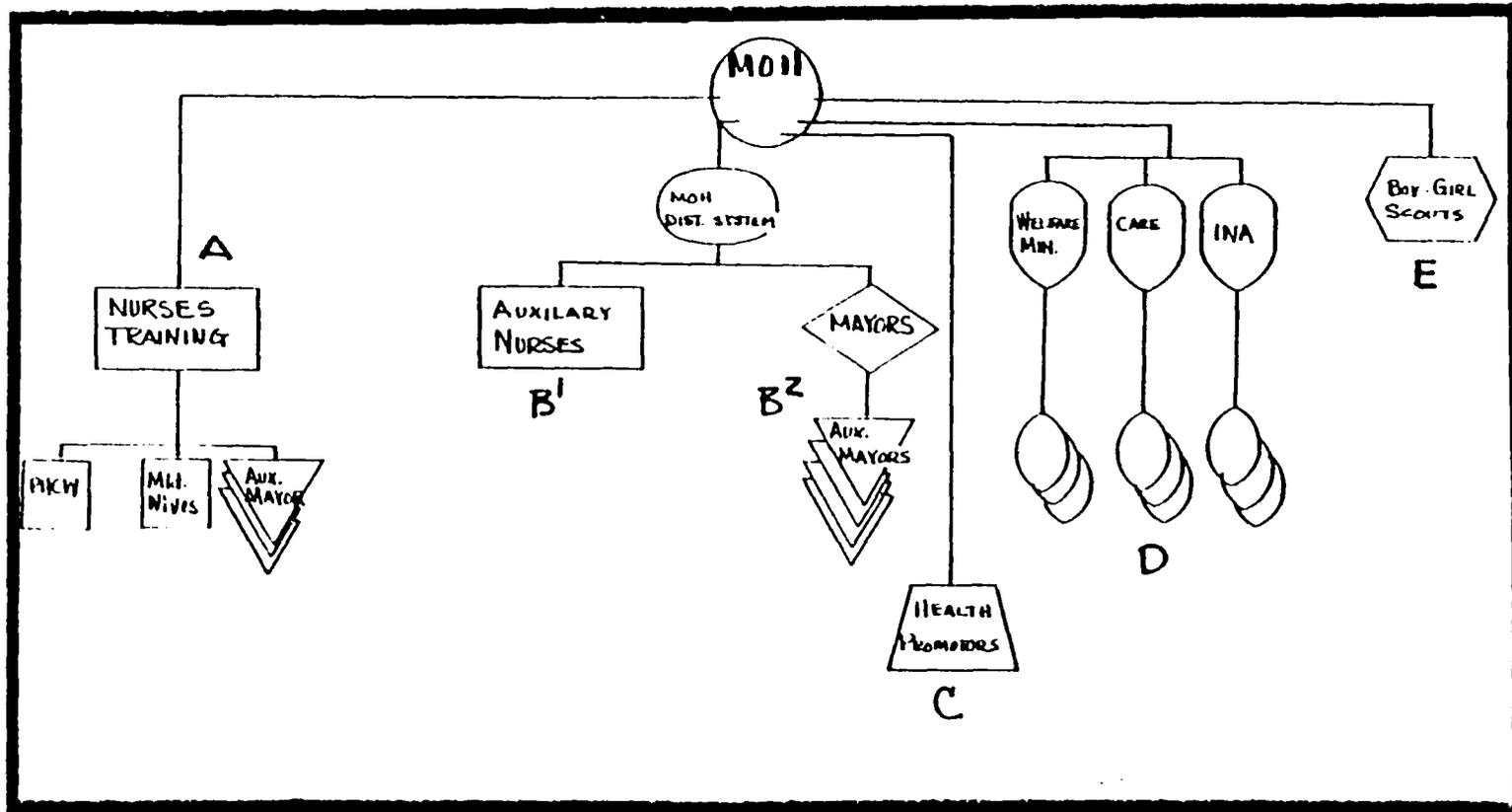
Initial information indicates that the problems related to supply, mixing, and vomiting have largely been solved. The other two problems, a remedy for diarrhea and giving enough solution to benefit seriously ill children, continue to be worrisome.

Unfortunately, we do not at this point have a sufficient understanding of what is really happening, how widespread, or even how accurate our analysis of the problem is. Consequently, December and January will focus on field investigation of these two issues.

In addition to these broad concerns, several specific modifications in the original plan will be implemented. They include:

- 1) Redesign the ORT instructional envelope so that it is less confusing and more graphically appealing.
- 2) Begin preparation of specific materials for schools.
- 3) Prepare for retraining of existing auxiliary nurses and for the new alcaldes to be named after the up-coming elections. This training should stress proper use of the instructional envelope.
- 4) Begin a new Saturday radio program for guardianes and midwives, lasting ten minutes and using pre-recorded field interviews with successful health workers to promote better use of the instructional envelope
- 5) Re-broadcast some of the first phase radio programs, including the breastfeeding song.
- 6) Develop a flip chart for nurses to use in health centers with large groups of women.
- 7) Produce a larger version of the LITROSOL flag and redistribute it to rural outlets.
- 8) Use radio to inform guardianes and midwives where to go to get re-supply of packets.
- 9) Develop a message package around a single prevention behavior relating radio, graphic, and training materials to a central theme. (The theme will be selected in consultation with the evaluation contractor.)
- 10) Develop a fotonovela (photo novel) on both prevention and treatment themes.
- 11) Procure a second batch of one million locally produced oral therapy packets. (Earlier designs for a triangular packet were discarded because no manufacturer for the proposed packet shape could be found. UNICEF representatives in New York offered full assistance in both purchasing bulk materials and in printing the one million packets.)
- 12) Pilot test several new distribution systems for packets and print materials. The following diagram illustrates the relationship between the new distribution systems being tested.

ALTERNATIVE DISTRIBUTIONS SYSTEMS



Five of the systems are designed to serve geographically distinct rural areas in the region, while one focuses on distribution to the principal semi-urban areas of Paraiso and Danli. System A is a continuation of the original distribution system, relying on bulk distribution during organized training sessions. Nurses receiving materials during the training in turn distribute them to PHCWs (Primary Health Care Workers), midwives, and auxiliary alcaldes in their area of influence. In System B1, the MOH's regular distribution vehicle will resupply Phase II health centers with both packets and print materials. These auxiliary nurses will in turn distribute stocks of materials to PHCWs, midwives, and the mayors in their areas. System B2 uses the same MOH vehicle to distribute bulk materials to alcaldes. The alcaldes in turn distribute to their staff of auxiliary alcaldes. System C focuses on the regional health promoter, providing bulk distribution of posters to the Regional Director for placement in rural communities served by the field promoters he supervises. System D uses existing social service institutions, such as the National Welfare Ministry, the Ministry of Agriculture promoters, and the CARE-supported feeding centers as distribution points for additional print material to villages and health workers in their respective areas of influence. Finally, System E aims to cover the semi-urban area of Paraiso and Danli, which were poorly served during the first round of distribution. Local Scout groups, both Boys and Girls, have agreed enthusiastically to distribute and place print materials in appropriate public places throughout the two towns. A set of questions have been added to one of the evaluation contractor's instruments which help monitor supply of materials and packets, as well as providing information on how the specific material was received by the mother or provider. This should help us determine the relative effectiveness of each new system and, coupled with information of cost and time required, provide additional criteria to the MOH's redesign activity.

B. THE GAMBIA

In early April, 1981, Mark Rasmuson was approved as project field director by AID and representatives of the Ministry of Health in The Gambia. On April 30, 1981, Mr. Rasmuson arrived in Washington for an intensive orientation program prior to departure for The Gambia. The full agenda for the program is provided in Appendix D. The meeting included major program consultants, representatives of AID, the evaluation contractor, and Dr. Reynaldo Pareja, Honduras' project field director. Dr. Pareja worked closely with Mr. Rasmuson, describing MM&HP program development in Honduras and assisting in the initial planning activity for The Gambia.

Upon arrival in Banjul, The Gambia, in May, 1981, Mr. Rasmuson proceeded to contact the central figures in the Gambian program, including local AID officials, Ministry of Health counterparts, representatives of Radio Gambia, the Peace Corps, the British Medical Research Council, the Book Production Unit of the Ministry of Education, UNICEF, and WHO. These meetings essentially re-stated the program's goals and were the first opportunity to begin the cooperative program design needed to transform the Project Agreement into a practical reality.

In July, a national policy committee was formed within the MOH to oversee diarrheal disease control activity and to ensure that the MM&HP planning was consistent with other aspects of the Diarrheal Disease Control (DDC) program. Mr. Rasmuson was asked to participate as a member of this committee.

One of the first tasks agreed upon was the review of the MOH manual on DDC. The manual had been in development for some months and represents both a statement of national policy and a practical field guide for rural practitioners. Review of the guide involved a number of wide-ranging issues including what form of oral therapy (pre-packaged or home-mix) would be promoted, how would the guide be introduced and used, what kind of graphic format would be best, and how the guide could be most effectively printed and distributed. A final draft guide suitable for field testing was approved by the MOH in mid July (see Appendix E). Another topic of importance was the relationship between the MM&HP program and the newly formed Health Education Unit. A number of proposals were put forth, but it was finally agreed that the MM&HP program would be considered part of the overall health education activity of the country, and thus avoid being stereotyped as an independent project, isolated from regular MOH activity.

Meetings with the staff of Radio Gambia centered upon understanding the broadcast styles and formats most commonly used in The Gambia, and defining priorities for radio broadcast schedules. The collection of field data on listener attitudes and practices was a topic of considerable interest and generated support from the inter-ministerial Advisory Sub-Committee on Rural and Adult Education Broadcasting.

A number of field visits were made to determine the extent of health infrastructure in rural areas. It was discovered that the Gambian Expanded Program of Immunization (EPI) has been very successful in reaching even the most isolated areas of the country. Reports show that some 85 percent of rural mothers had a EPI child health card.

It was also discovered that oral therapy was widely known, but unreliably practiced at all levels of the health system. Major questions about the relative merits of pre-packaged salts or home-mix solutions surfaced during these visits. A team from MRC had just completed a series of mixing trials involving both pre-packaged and home-mix solutions of OR salts. Sixty-three percent of the 153 mothers who had been taught to mix the pre-packaged salts, mixed correct solutions in their homes on the following day. (Of the 37 percent who had not mixed the solution on the following day, a substantial number had no liter container, even though they said they did have such a container.) The home-mix solutions, using a different group of mothers and soda-bottle caps as measures, showed generally higher levels of sodium concentration, in some instances, dangerously high levels. In both components, it was found that few mothers administered more than 100 to 300 mls. (one-third of the required dosage) within the first 24 hours. This, coupled with the information on the important role rural nurses play in villagers' education, were important clues to defining investigation topics for the first phase of formative evaluation.

Discussion with the staff of the Book Production Unit (BPU) of the Ministry of Education proved most helpful. They reiterated their enthusiasm for assisting in the development and production of needed graphic materials.

A Kodak contact screen was procured to permit them to prepare poster formats for the diarrheal manual. BPU personnel were particularly enthusiastic about possible production of a photo novel.

It was decided that a national logo was needed and development of a visual symbol for the program was initiated. Visuals to be included in the manual were ready for pre-testing, and a questionnaire for Peace Corps Volunteers was developed to determine what mixing containers were commonly available in rural areas (see Appendix F).

In addition to these substantive investigation and design activities, Mr. Rasmuson had several pending administrative duties. He coordinated the construction of the project's office facility. As agreed, AID supplied funds to remodel an existing garage space into two offices for the implementation and evaluation contractors. Establishment of regular banking and communications procedures took additional days to work out, and Mr. Rasmuson was also responsible for purchasing vehicles and clearing project materials and goods through local customs.

On May 20, 1981, The Gambia experienced an attempted coup d'etat which paralyzed the country for several weeks and caused significant delays in program implementation. On August 8, all American personnel were evacuated from Banjul to Dakar, Senegal. Mr. Rasmuson returned to The Gambia on August 25, 1981, with Dr. Peter Spain, the Stanford field director. Following the coup, several weeks were needed to determine what long-range impact the attempt would have on counterparts, MOH priorities, and program field operations. Early discussions after the coup with MOH representatives indicated strong continued support for the diarrhea program. Planning proceeded even though important questions on how the program would be implemented remained unanswered.

As part of a general review of Academy overseas projects, Dr. Alvin C. Eurich visited The Gambia on September 24 and 25, 1981. Dr. Eurich's visit was an opportunity after the coup to bring together the principal decision-makers in the Ministry of Health and make a concise re-presentation of the program's goals and activities.

In late September, 1981, Mr. Rasmuson left The Gambia on emergency leave to attend his father's funeral. Upon returning from leave, he stopped in Washington for two days to review field progress and to re-program field activities. The following decisions were made during this visit:

- The developmental investigation would be scheduled for October and November, 1981. Special attention would be given to village observation and focus group interviewing around themes to be determined in early October. In November, Elizabeth Booth would travel to The Gambia for a three-week visit, assisting in the final design of the investigation, training radio station operators in the production of instructional spots, and conducting early analysis of investigation results. Analysis of the results would be completed in December, 1981.
- The developmental investigation would be carried out jointly by implementation and evaluation contractor personnel, providing a

common opportunity to develop effective field questioning techniques and focusing the complementary skills of both contractor personnel on this critical task.

- In January, 1982, Drs. Smith, Foote, Novelli, and Touchette would travel to The Gambia for review of the investigation results and preparation of the final campaign plan. This plan would be submitted to AID, the MOH and the AED Institutional Review Board in February, and activities would begin as soon as it was finally approved.
- In late February, 1982, a consultant would travel to The Gambia for two to three weeks to assist in the final production of the first radio programs, and to work with Radio Gambia personnel in script development, draft program production, and pre-testing.

C. WATER AND SANITATION COMPONENT

The Water and Sanitation Component (W&S) of the MM&HP program focuses on educational support to a large-scale, AID-supported program conducted by the Ministry of Public Works, as well as the Ministry of Health in Honduras. Unlike the primary MM&HP contract, the W&S program includes major investment in infrastructural changes: latrines, wells and a piped water system. The Academy's contribution to the program is the provision of 36 person/months of technical assistance to the health education unit of the MOH. This assistance focuses on the development of an educational campaign similar in scope and design to the diarrhea campaign, but directed more specifically at water and sanitation related behavior in three northeastern provinces of Honduras--Santa Rosa, Santa Barbara, and Ocotpeque.

The Academy's principal technical advisor, Dr. Oscar Vigano, arrived in Honduras on February 16. His first task was to assist in the development of a detailed work plan including phased budget projections for the health education component of the overall program. Working with Lic. Luis Canales, Dr. Vigano began a several month process of field investigation, meetings, document reviews, and approval. This process came to an end on August 12, with final MOH approval of the implementation plan. A copy of the plan is available from the Academy, but due to its size it was not included as an appendix to this report.

The major features of the plan include:

- A community investigation phase which takes advantage of information already collected by the diarrhea component and stresses early pilot testing of specific educational materials.
- Face-to-face training of regional health promoters in techniques of community participation, mobilization, and education.
- Development of targeted radio messages, directed at both health promoters and the general rural audience. Some 80 programs will be developed during the first 20 months, four new programs a month using three local stations.

- An audio cassette forum for use in community meetings and during continued self-training of promoters.
- A wide range of graphic materials including flip-charts, photo novels, comic books, educational games, puppets, flannel boards, and video cassettes.
- A school education program especially structured around visual materials, permitting teachers to emphasize key W&S behaviors with young children of the community.

A project committee was formed to oversee the various aspects of the program. The committee consists of Eng. Edmundo Madrid, Project Coordinator; Eng. Oscar Diez of SANA, the National Public Works Organization; Eng. Efrain Giron, MOH; and Lic. Luis Armando Canales, MOH. This committee was critical in ensuring that all parts of the educational plan fit into the overall schedule of the program.

During the development of the plan, a wide range of information was collected on health infrastructure in the region. A learner's profile was prepared to describe the promoter's specific learning needs and a 20-question initial investigation was conducted to determine the rural audience's attitudes towards selected behaviors such as latrine use, water storage, and well construction. The experience proved important in demonstrating that promoters could effectively interview rural people and pointed out the continued resistance among rural people to latrine use. Problems commonly cited included the presence of bugs, particularly mosquitoes; children falling into latrines; the unpleasant odor; and even several cases of latrines having "exploded."

This informal investigation was used to establish themes around which to develop pilot materials. It was decided that the W&S program would build upon the diarrhea component's investigation results, and not replicate the full developmental investigation. Instead, project planners would invest heavily in pre-testing of pilot materials, permitting the education components to remain in phase with the construction aspects of the project (see sample booklet for schools in Appendix G). Because the program is phased by regions, the earlier regions will have the longest potential exposure. This added exposure will compensate for defects in early materials. Regions implemented later in the program will have less exposure, but the materials used will have benefitted from prior development stages. This approach requires regular systematic monitoring and periodic changes in materials consistent with the overall MM&HP methodology.

On September 8 and 9, 1981, Dr. Vigano visited the Academy in Washington, following completion of his approved R&R leave in the United States. During this visit, progress on the project was reviewed and planning for the next three- to six-months' activity was begun.

D. COORDINATION WITH EVALUATION CONTRACTOR

Regular communication continued between the evaluation and implementation contactors. Drs. Dennis Foote and Peter Spain, Stanford project personnel participated in the orientation for Mr. Mark Rasmuson in April of 1981. Regular phone communication between the Academy and Stanford was maintained. The Academy reviewed the draft evaluation instruments provided by Stanford. These reviews included a series of suggested questions to be added to the instrument. The final instruments were received in August of 1981.

E. PROJECT RELATED TRAVEL

Several important trips took place during this reporting period. They include:

April 30 to May 4

A visit by Reynaldo Pareja to Washington. This visit was accompanied by a general review of project development which include the project's principal consultants, evaluation contractor representative, AID monitors, and the newly appointed field director for The Gambia, Mr. Mark Rasmuson. While the principal purpose of the visit was orientation for Mr. Rasmuson, it also provided an opportunity for the full group to review progress in Honduras. The agenda for the meeting is provided in Appendix D.

July 13 to 17

A review visit by AID project monitor, Dr. Anthony Meyer, to Honduras. This review came during the height of Phase I activity and was an opportunity for Dr. Meyer to judge firsthand whether major campaign elements were in place. A copy of Dr. Meyer's report is attached in Appendix H.

August 10 to 14

A visit to Washington by Elizabeth Booth, assistant field coordinator in Honduras, following her approved R&R in the United States. Ms. Booth reviewed field progress with the home office staff and participated in the preparation of a series of Field Notes describing specific aspects of project implementation.

F. PROPOSED PAHO/AID SEMINAR ON DIARRHEAL DISEASE CONTROL IN HONDURAS

One result of Dr. Meyer's July visit to Honduras was a proposal to train national managers of Diarrheal Disease Control Programs throughout Central America. Dr. James Rust of PAHO/Washington, was also in Tegucigalpa at the time and met on several occasions with Dr. Meyer and the project team. It was agreed during these meetings that a Central American seminar on DDC program management would be jointly sponsored by PAHO and AID.

On September 18, 1981, AID amended the Academy's Studies in Facilitating Learning Contract to provide \$14,000 toward the travel and administrative cost

of the DDC seminar. Representatives from 10 Latin American countries--Guatemala, El Salvador, Nicaragua, Honduras, Costa Rica, Panama, the Dominican Republic, Ecuador, Mexico, and Brazil--would meet for one week (October 26 to 30, 1981) in Tegucigalpa. The principal resource material for the seminar would be a series of structured modules developed originally by WHO in India and pre-tested in Thailand. A special session on the use of mass communication in public education would be added by the Academy team.

During this reporting period, seminar participants were selected and contacted. Materials were prepared, reviewed, and approved by PAHO and AID representatives, and logistical arrangements for the seminar proceeded in Honduras. The USAID and PAHO missions in Tegucigalpa were an important source of support and along with the Ministry of Health provided on-site administrative guidance for the program.

G. DISSEMINATION ACTIVITIES

One objective of the MM&HP program is to establish contact with similar programs and ensure that the methodology of systematic mass communication development is shared widely among health professionals. A number of activities were completed in this period which contribute toward this goal. They include:

Development of three Field Notes. These notes are short, journalistic descriptions of discrete aspects of the implementation program. The first three titles include PACKETS: Do Visual Instructions Make a Difference?, PACKETS: More Questions and A Few New Answers, and THE ORT POSTER: Something Special for the Professionals. Copies of the Field Notes are available from the Academy.

The project received publicity in several journals and newsletters. Copies have been included in Appendix I.

Dr. Smith participated in a National Council for International Health-(NCIH) sponsored seminar (June 14-15, 1981) on water and sanitation programs and made a presentation of the methodology being applied in Honduras.

Dr. Smith made a two hour presentation on May 20, 1981, to representatives of PAHO and AID. The presentation included a full review of the implementation plan, copies of graphic materials produced, and radio spots played. Background materials were distributed to participants.

Regular communication between Dr. James Rust, Chief of DDC at PAHO/Washington, and Dr. Michael Merson, Director of DDC at WHO/Geneva, continued. A number of letters were exchanged, and copies of materials were sent to both individuals.

H. ADMINISTRATION

A budget review was held on April 3 with AID monitors, Drs. David Sprague, Clifford Block, and Anthony Meyer. The status of project expenditures was discussed, and the potential need for additional funds was presented. It was agreed to review funding requirements periodically.

I. GENERAL PROJECT ADMINISTRATION

During this period, a full-scale review of local imprest fund management was conducted and a field guide developed for use in preparing and submitting field financial reports. The guide covered a variety of additional topics, including emergency evacuation information, overseas personnel procedures, equipment and commodity management, and publication and reporting policies. The guide was distributed to each field director along with a several hour orientation on how it should be used and adapted to specific field conditions.

Travel arrangements were made for:

Pareja travel to Washington for Gambia orientation	April 30-May 4
Booth R&R plus visit to Washington	August 10-14
Rasmuson relocation in The Gambia	May 5
Emergency evacuation to Dakar, return to Banjul	August 8-25
Emergency leave in U.S. and visit to Washington	September 5-7
Vigano's R&R leave plus visit to Washington	September 30

SECTION IV

ACTIVITIES PROJECTED FOR PERIOD FROM OCTOBER 1 TO MARCH 31, 1982

A. HONDURAS

1. Conduct the PAHO/AID-sponsored seminar on Diarrheal Disease Control in Tegucigalpa, from October 26 through 30.
2. Develop prevention theme packet and prepare materials for Phase III.
3. Make changes in existing materials as defined in Section III.
4. Continue with implementation of Phase III .
5. Reappoint Pareja and Booth for an additional 12 months, as their appointments expire in December, 1981.

B. THE GAMBIA

1. Arrange Booth's travel to The Gambia for participation in developmental investigation.
2. Analyze developmental investigation results in December.
3. Prepare campaign plan in January with assistance of Smith, Foote, Novelli, and Touchette, and seek AID and IRB approval.
4. Provide two weeks of radio production program consultancy in February to assist with development of first radio programs and initial training of Radio Gambia staff.
5. Implement first phases of campaign plan.

C. WATER AND SANITATION COMPONENT

1. Continue implementation of campaign plan.
2. Develop radio spots, poster materials, photonovels, and puppets.
3. Initiate large-scale training of health promoters.

D. GENERAL ADMINISTRATION

Present a series of amendments needed in MM&HP contract for AID review and approval.

SECTION V

ADMINISTRATIVE REPORT

Expenditures to September 30, 1981

	MM&HP	W&S	TOTAL
Salaries & Wages	310,529.54	26,937.69	337,467.23
Employee Benefits	53,931.23	5,931.15	59,862.38
Consultant Fees	23,529.91		23,529.91
Travel & Transportation	79,966.15	17,742.12	97,708.27
Overseas Allowances	28,173.64	3,070.66	31,244.30
Other Direct Costs	117,224.45	1,129.44	118,353.89
Equipment	28,992.32	922.50	29,914.82
Overhead	152,741.44	12,935.10	165,676.54
TOTAL	795,088.68	68,668.66	863,757.34

* Because of the addition of USAID Honduras mission funds to the MM&HP contract, all future administrative reports will segregate expenditures into basic contract expenditures (MM&HP) and mission-supported activities in water and sanitation (W&S).

INFORMATION FROM THE REHYDRATION WARD OF THE

NATIONAL CHILDREN'S HOSPITAL IN TEGUCIGALPA, HONDURAS

This information was provided by the directors of the Pediatric Ward of the National Children's Hospital in Tegucigalpa, and covers the period from January 1, to August 30, 1981.

Ninety-four percent of all children with diarrheal dehydration in the hospital were treated with oral IV therapy.

Average number of diarrhea cases a day: 8

Average number of diarrhea cases a month: 250

Seventy-five percent of cases treated at Children's Hospital are from families living in areas officially classified as urban.

Ninety-five percent of children treated are below the age of two.

Eighty-seven percent of children treated are below the age of one.

Eighty-six percent of all children are accompanied by their mothers.

Thirty-one percent of the children have had diarrhea for three days or more.

Thirty-one percent of the cases are accompanied in the early phases with vomiting.

Fifty-three percent of the cases were for mild diarrhea.

Forty-seven percent of the cases had moderate diarrhea.

Treatment in the Hospital lasts for about six hours in 90 percent of the cases.

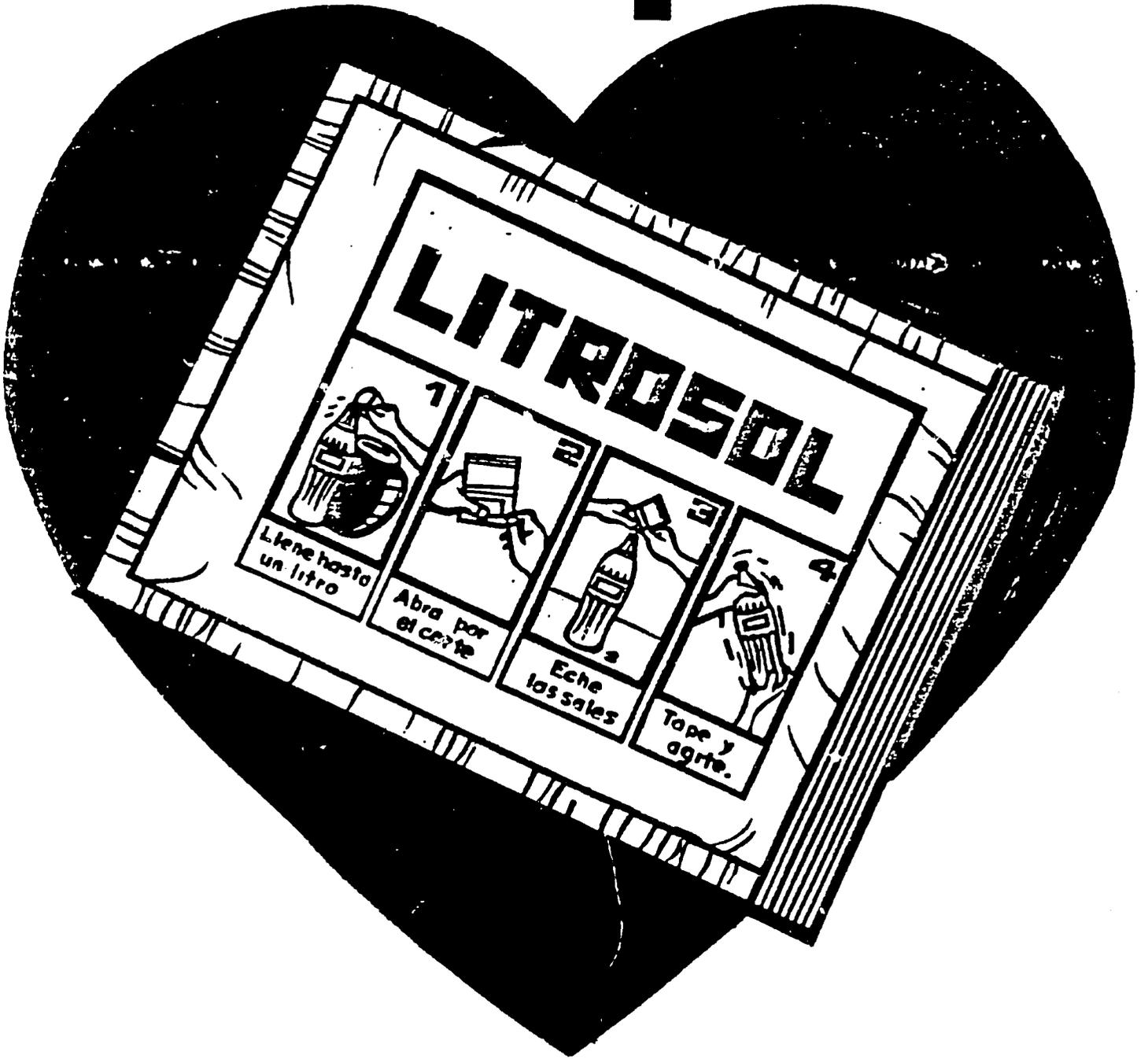
Five percent of the children treated returned for additional treatment.

During the period covered, one child died from complications unrelated to diarrheal dehydration.

PROMOTIONAL MATERIAL

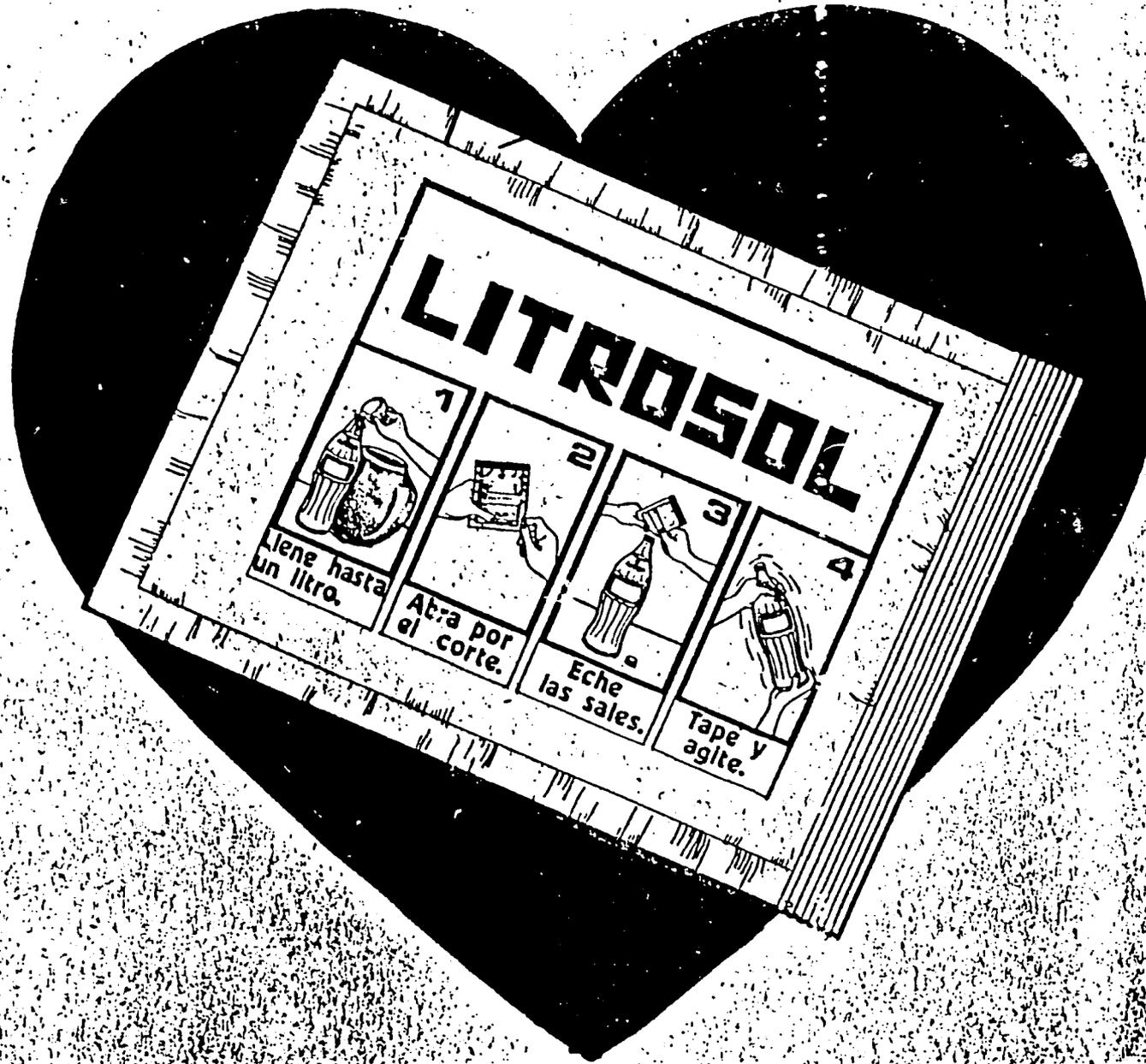
HONDURAS

Pida aquí su...



27

PIDA SU...



DONDE VEA LA BANDERA DEL CORAZON

LITROSOL



PARA QUE NO MUERA
DESHIDRATADO
POR LA OBRADERA

29

MADRE QUE PECHO DA...



¡ES MADRE DE VERDAD!

*Ministerio de Salud Pública y O. S.
División de Educación*

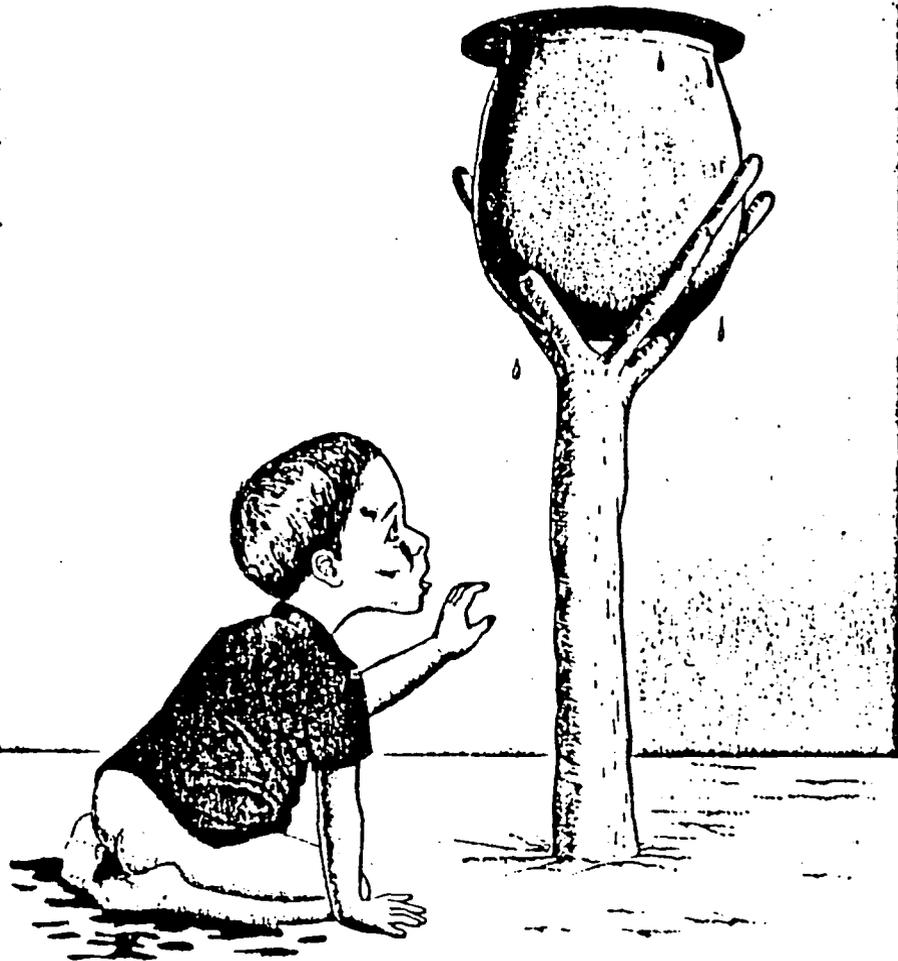
Proyecto Tratamiento Diarrea Infantil. 30

EL TIERNO ES MAS DELICADO



¡ DELE MAS CUIDADO !

¿ CON OBRADERA ... ?

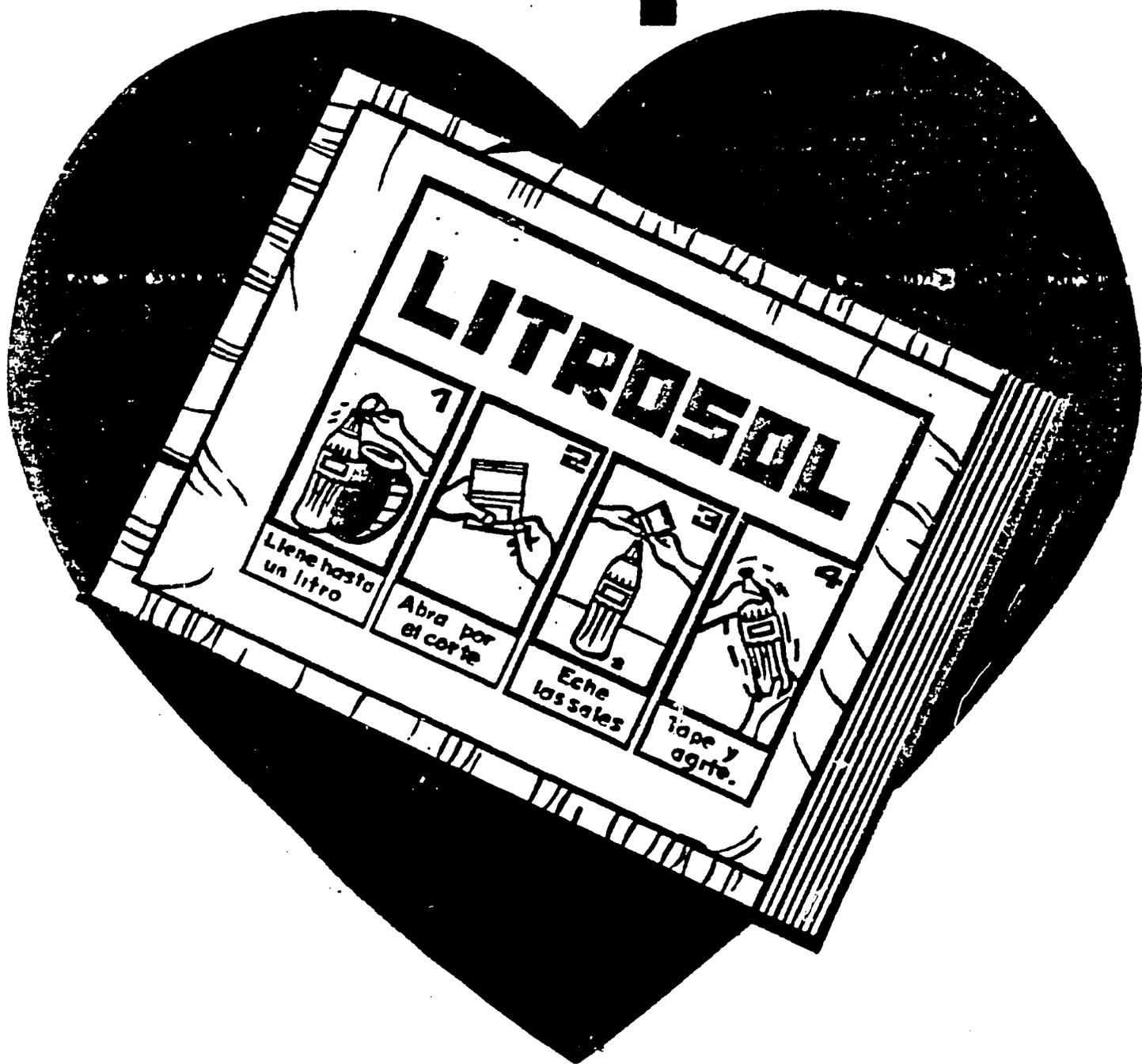


¡ DELE LIQUIDOS PARA QUE NO MUERA !

INSTRUCTIONAL MATERIAL

HONDURAS

Pida aquí su...



SENALES DE DESHIDRATACION

Mollera Hundida

Ojos Hundidos

Boca Seca

Pliegue de La Piel

Falta de
lágrimas

Orina Poco,
o No Orina

Mucha Sed

DECAIDO

DESGANADO

**¡ ATENCION...! SI EL NIÑO TIENE DOS O MAS DE
ESTAS SEÑALES, LLEVELO EN SEGUIDA AL CENTRO DE SALUD.
PREPARELE LITROSOL PARA DARLE EN EL CAMINO.**

LA REHIDRATACION ORAL CON LITROSOL

La solución oral de litrosol (LITROSOL) para la rehidratación oral es el tratamiento ideal en los casos de diarreas agudas leve y moderada y como prevención más del 80% de la incidencia de las cólicas.

Se ha probado en tres regímenes para el manejo de la diarrea infantil de acuerdo al estado de hidratación del paciente (leve, moderada o severa).

Los hechos científicos indican que durante todo el tiempo el niño o enfermo debe ser tratado con LITROSOL.

Los hechos científicos indican que cuando el niño o enfermo es tratado con LITROSOL, el paciente se recupera más rápido.

Los hechos científicos indican que cuando el niño o enfermo es tratado con LITROSOL, el paciente se recupera más rápido.



La aplicación de cada régimen será dividida en cuatro pasos:

1. Evaluación del paciente
2. Asignación del tratamiento
3. Re-evaluación del paciente
4. Fase de Mantenimiento o Prevención

Los Cuadros A y B indican los regímenes aplicables.

I. Evaluación del Paciente:

La evaluación del paciente deberá ser global y completa de manera que se pueda determinar el pronóstico del paciente para su manejo inicial. Esta evaluación debe basarse en los signos de hidratación leve, moderada o severa. Para el paciente se debe evaluar el estado de hidratación y su respuesta al manejo inicial de acuerdo al cuadro. Sin embargo, si no hay mejoría a una hora, se recomienda el paso por otros puntos de evaluación. (Ver Cuadro A).

II. Asignación del Tratamiento:

El paciente debe ser asignado al régimen que corresponde de acuerdo a la evaluación:

Hidratación leve:

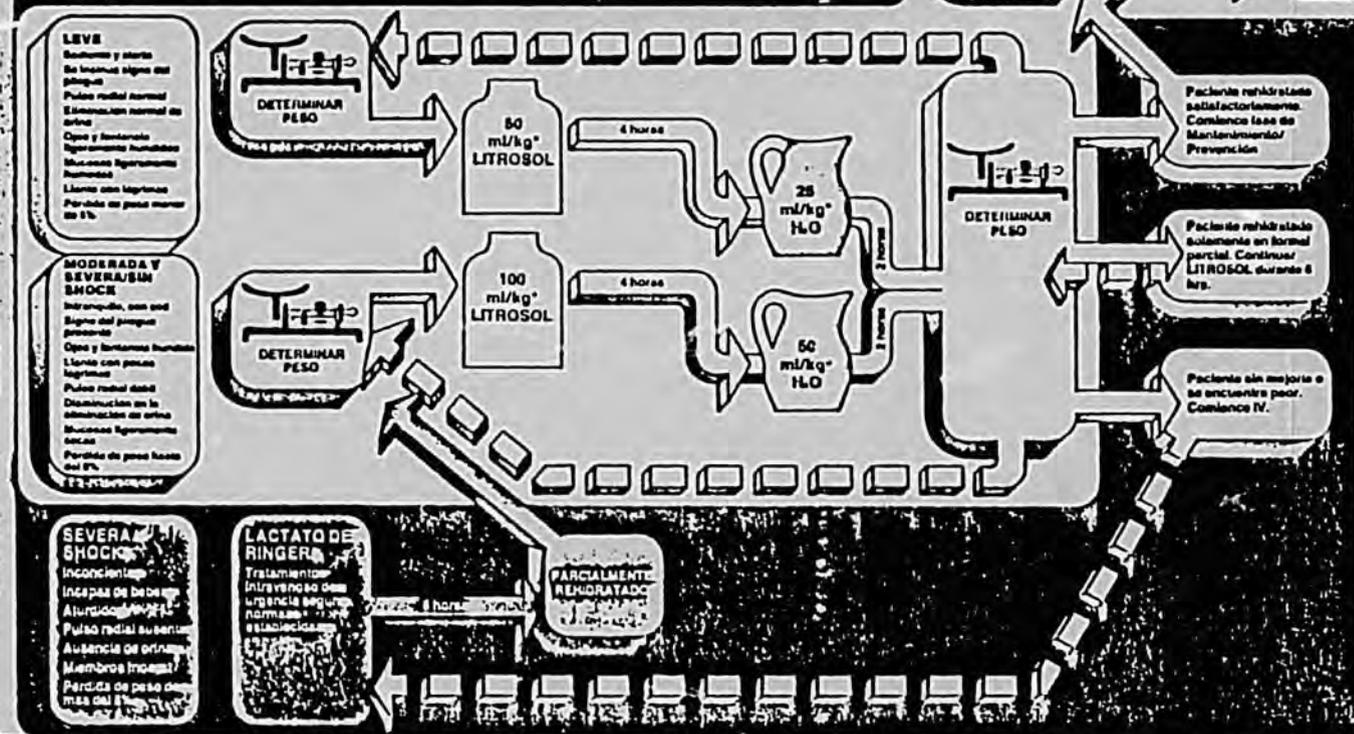
- 50 ml de LITROSOL por kg de peso durante 4 horas, y
- 50 ml de agua por kg de peso en las 2 horas siguientes.

Hidratación moderada:

- 100 ml de LITROSOL por kg de peso durante 4 horas, y
- 50 ml de agua por kg de peso en las 2 horas siguientes.

Hidratación severa:

- Seguir las normas establecidas para el tratamiento IV.



Cuadro A. Estimación del Peso del Niño de Acuerdo a la Edad y Estatura

Se estimó una serie de tablas de aumento para determinar el peso aproximado del niño para calcular los requerimientos de solución LITROSOL. Se debe utilizar para evaluar el estado de hidratación y el tratamiento de la diarrea.

Edad	Peso KG	Peso Libra	Estatura Cm.
0 Meses	3.5	7.8	58.3
3 Meses	5.8	11.1	57.6
6 Meses	6.7	14.7	65.7
9 Meses	7.8	16.8	68.0
12 Meses	8.6	18.8	70.0
18 Meses	9.6	20.8	72.4
24 Meses	10.1	22.3	76.3
30 Meses	10.9	23.9	78.3
36 Meses	11.4	25.2	81.3
42 Meses	12.1	26.7	84.3
48 Meses	12.6	27.8	87.6
54 Meses	13.3	29.3	89.6
60 Meses	13.8	30.4	91.7
66 Meses	14.3	31.5	94.7
72 Meses	14.7	32.6	95.7

• Si por ejemplo, una criatura pesa 4 kg y 100 ml/kg está indicado dar al niño 400 ml de LITROSOL.



PROMOVER LA ALIMENTACION AL PECO MATERNO

Durante las Epizootias de Diarrea

Durante las epizootias de diarrea se debe continuar la lactancia materna en la medida de lo posible. Una lactancia materna adecuada es un requisito importante de la recuperación.

El lactante debe ser alimentado con leche materna o con leche materna fortificada. Si el lactante no puede continuar con la lactancia materna, se debe utilizar leche materna fortificada o leche materna estéril.

Como medida preventiva

El lactante debe ser alimentado con leche materna o con leche materna fortificada. Si el lactante no puede continuar con la lactancia materna, se debe utilizar leche materna fortificada o leche materna estéril.



PROMOVER LA ALIMENTACION DURANTE LOS ATAQUES DE DIARREA

La diarrea puede ser un signo de deshidratación leve o moderada. Durante los ataques de diarrea se debe continuar la alimentación con leche materna o leche materna fortificada. Si el lactante no puede continuar con la lactancia materna, se debe utilizar leche materna fortificada o leche materna estéril.



EVITAR EL USO RUTINARIO DE ANTIMICROBIANOS Y ANTIDIARREICOS

Antimicrobianos:

El uso rutinario de antimicrobianos puede ser perjudicial para el niño. El uso rutinario de antimicrobianos puede ser perjudicial para el niño. El uso rutinario de antimicrobianos puede ser perjudicial para el niño.

Antidiarreicos:

El uso rutinario de antidiarreicos puede ser perjudicial para el niño. El uso rutinario de antidiarreicos puede ser perjudicial para el niño. El uso rutinario de antidiarreicos puede ser perjudicial para el niño.

APPENDIX B
NEWSPAPER ARTICLES
HONDURAS

TRANSPORTES DISCUA-LITENA

Anuncian su horario de salidas, lo espera en sus terminales
Tegucigalpa, Boulevard Suyapa
Tels. 22-1856, 32-7939

DANLI: Frente a la Plaza Julio Verne
Tel. 93-2217
En El Paraiso, calle de Radio, El Paraiso

	DANLI	PARAISO
5:10 a.m.	3:30 a.m.	4:10 a.m.
5:50 a.m.	4:45 a.m.	5:30 a.m.
7:10 a.m.	6:05 a.m.	6:10 a.m.
8:30 a.m.	6:45 a.m.	6:50 a.m.
9:50 a.m.	7:25 a.m.	8:10 a.m.
10:30 a.m.	8:45 a.m.	8:50 a.m.
11:10 a.m.	9:25 a.m.	10:10 a.m.
12:30 p.m.	10:45 a.m.	10:50 a.m.
1:10 p.m.	11:25 a.m.	12:10 p.m.
1:50 p.m.	12:45 p.m.	1:30 p.m.
3:10 p.m.	2:05 p.m.	2:50 p.m.
3:50 p.m.	3:25 p.m.	3:30 p.m.
5:10 p.m.	4:05 p.m.	4:10 p.m.
6:30 p.m.	4:45 p.m.	



Con equipo moderno
de radio comunicación
Discua Litena si vale la
pena.

SE SUMAN A LOS PROGRAMAS DE SALUD LOS ALCALDES AUXILIARES

En su afán de popularizar el método de rehidratación oral, el Ministerio de Salud Pública ha capacitado en esta técnica a 380 alcaldes auxiliares de Francisco Morazán y El Paraiso, durante los meses de mayo y junio.

Este entrenamiento es parte de la primera etapa de una campaña experimental para combatir la deshidratación en la Región Sanitaria Número Uno, que comprende dichos departamentos.

La nueva técnica fue también enseñada a 186 personas, que incluyen a doctores en servicio social, enfermeras profesionales y auxiliares, personal de Salud Pública y Asistencia Social que opera en la Región y 60 trabajadores de salud del Cuerpo de Paz.

Durante la primera etapa de la campaña, que cubre el inicio de los meses de mayor incidencia de la diarrea y enfermedades de tipo gastrointestinal, se produjeron y distribuyeron 36 mil afiches con diferentes mensajes para combatir la deshidratación.

Asimismo se imprimieron mil banderines que sirven para

identificar las casas de los campesinos miembros de la comunidad donde se encuentra disponible el LITROSOL, un preparado que disuelto en agua hervida ayuda a combatir la deshidratación.

Hasta el momento han sido preparados en 36 municipios 109 mil 600 sobres de esta preparación y 222 personas laboran en su distribución explicando a las madres su empleo.

En los próximos meses y una vez que sea posible medir el impacto de esta campaña, el LITROSOL estará a la disposición de los pacientes en los hospitales regionales del país y se procederá a implementar la campaña a nivel nacional.

Se estima que una vez que haya conciencia entre la población sobre este problema y la manera más efectiva de combatirlo, la mortalidad infantil producida por la pérdida de líquidos que acompaña a la diarrea disminuirá notablemente.

IMPORTACIONES Y EXPORTACIONES

la ruta de NORRIZ

Tegucigalpa
Altos Edificio Industrias Firestone No. 1710
Boulevard Toncontín
Comayagüela, D.C.
teléfonos: 33-17-21 33-49-78
33-17-23 33-49-89
33-17-24

Puerto Cortés
Barrio El Centro
Tel. 55-05-50

San Pedro Sula
Boulevard Morazán 1a
calle oeste, 11 y 12 ave. No. 72
Tels. 54-21-12 54-41-02
54-24-81 54-16-27

Agencia Aduanera
Rivera Zelaya
S. de R. L. DE C. V.

Servicios Aduaneros con Agencia en todas las fronteras de la República

Best Available Document

JEANS



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EL SORTEO SERA EL 3 DE FEBRERO DE 1981.

EL BILLETE: Lps. 40.00
 10 TEMPIRAS EL PREMIO MAYOR.

COMBINACION DE PREMIOS

DEL SORTEO EXTRAORDINARIO N° 745, PARA EL PRONJIO A DE SEPTIEMBRE DE 1981.

El sorteo consta de 45,000 billetes, a Lps. 40.00 cada uno, divididos en vigésimos, a Lps. 2.00 cada vigésimo.

PREMIOS DE URNA

1 PRIMER PREMIO DE	L. 350,000.00
1 SEGUNDO PREMIO DE	" 120,000.00
1 TERCER PREMIO DE	" 50,000.00
1 CUARTO PREMIO DE	" 30,000.00
2 PREMIOS DE L. 25,000.00 CADA UNO	" 50,000.00
3 PREMIOS DE L. 10,000.00 CADA UNO	" 30,000.00
12 PREMIOS DE L. 5,000.00 CADA UNO	" 60,000.00
10 PREMIOS DE L. 2,000.00 CADA UNO	" 20,000.00
45 PREMIOS DE L. 1,000.00 CADA UNO	" 45,000.00
45 PREMIOS DE L. 200.00 CADA UNO	" 9,000.00
100 PREMIOS DE L. 100.00 CADA UNO	" 10,000.00

APROXIMACIONES, TERMINACIONES Y REINTEGROS

2 Premios de Lps. 2,000.00 cada uno para el número anterior y posterior del Primer Premio	L. 4,000.00
2 Premios de Lps. 1,000.00 cada uno para el número anterior y posterior del Segundo Premio	" 2,000.00
2 Premios de Lps. 500.00 cada uno para el número anterior y posterior del Tercer Premio	" 1,000.00
41 Premios de Lps. 300.00 cada uno para el número cuyas 3 últimas cifras sean iguales a las 3 últimas cifras del Primer Premio	" 12,300.00
405 Premios de Lps. 160.00 cada uno para los números cuyas 2 últimas cifras sean iguales a las 2 últimas cifras del Primer Premio	" 64,800.00
419 Premios de Lps. 120.00 cada uno para los números cuyas 2 últimas cifras sean iguales a las 2 últimas cifras del Segundo Premio	" 50,280.00
419 Premios de Lps. 80.00 cada uno para los números cuyas 2 últimas cifras sean iguales a las 2 últimas cifras del Tercer Premio	" 33,520.00
1,050 Premios de Lps. 40.00 cada uno para los números cuya última cifra sea igual a la última cifra del Primer Premio, exceptuando las 3 y 2 últimas cifras	" 42,000.00
291 Reintegros de Lps. 40.00 cada uno para los números comprendidos en la Centena del Primero, Segundo y Tercer Premio, exceptuándose el número anterior y posterior de dichos premios	" 11,640.00

5,915 PREMIOS CON UN VALOR TOTAL DE L. 1,122,440.00

LEGISLATIVO No. 83 DE FEBRERO DE 1934

Los billetes premiados el portador y no podrán por ningún otro documento suspenderse el pago si de la autoridad competente.

EN LOS SORTEOS DE LA MAYOR DE HONDURAS.

LEGISLATIVO No. 3 DE FEBRERO DE 1958

sobre los premios de urna de la Lotería Nacional de Honduras, acordará de acuerdo con la siguiente tarifa:

L. 1,000	2%
L. 1,000 a L. 10,000	4%
L. 10,000	6%

DE LA DIRECCION

Este es aplicable en su proporción como favorecido, tomando como total del billete.

El Patronato Nacional de la Infancia (PANI), durante el mes de julio a cargo en favor del Ministerio de Salud Pública, la cantidad de Lps. 400,000.00, suma que ha requerido dicha Secretaría de Estado para solventar problemas económicos suscitados en el Hospital Materno-Infantil, lo que ha motivado al PANI a hacer este aporte especial al margen de los fondos que entrega al Gobierno Central.

De igual manera, otra entrega en efectivo consistió en Lps. 700,000.00 más en vias de concretarse al mismo Ministerio de Salud para utilizarlos en las necesidades económicas que con carácter de urgencia requiere el Materno-Infantil, lo que viene a aumentar la cantidad en Lps. 1,200,000.00.

Estos aportes responden a la aguda crisis financiera por la que atraviesa el Hospital Escuela y Materno-Infantil, ambas dependencias del Ministerio de Salud que no ha visto más recurso que solicitar asistencia económica al Patronato Nacional de la Infancia (PANI), Institución que ha respondido al llamado, no obstante a los serios compromisos que por separado tiene con el gobierno al aportarle anualmente gruesas erogaciones para ser utilizadas en programas de asistencia social que vengán en beneficio del pueblo hondureño.

Dos balones de fútbol y dos docenas de camisetas fueron entregadas recientemente al Departamento de Promoción a Mujeres y Menores Trabajadores, dependencia de la Dirección de Previsión Social del Ministerio de Trabajo.

Esta donación es una forma de coadyuvar a la meritoria labor que desarrolla aquel departamento en pro de brindar sano entretenimiento a jóvenes adolescentes, que por este medio utilizan su tiempo libre en actividades recreativas.

Por otro lado el PANI, colabora también en la celebración de aniversario de la Escuela "Tempera" de Comayagüela, obsequiando al alumnado con confites y palletas, lo que indudablemente vino a hacer más feliz el festejo.

El Patronato Nacional de la Infancia regularmente atiende este tipo de peticiones con el fin de ayudar a todas aquellas actividades en las que se encuentre de por medio la niñez del país.

Desde luego, estas aportaciones no están limitadas en los grandes programas que el PANI financia a nivel nacional y que comprenden la protección del binomio Madre-Niño.

EL TIERNO ES MAS DELICADO



¡ DELE MAS CUIDADO !

MADRE QUE PECHO DA...



¡ ES MADRE DE VERDAD !

SAMPLE PRE-TEST DESIGN

The following report describes one of the pre-tests conducted during this reporting phase. It has been included here to demonstrate how simple pre-testing can be used on an ad hoc basis to answer unexpected design questions. A new poster (see page A-5) was being developed to promote LITROSOL. The central concept was to show a family, both husband and wife, administering LITROSOL to their young child. The poster was to communicate five key ideas:

1. LITROSOL is a family medicine, a husband can help his wife administer the solution, and this sharing produces a loving response.
2. The solution should be given in a cup or with a spoon.
3. The packet should be mixed in water.
4. Only one packet should be mixed at a time.
5. A liter-size container should be used to mix the packet. Earlier research had shown that the coke bottle was the most widely recognized liter container.

Several designs were taken to the field and pre-tested, but not until the first proofs came back from the printer was it noted that the husband might be seen as pouring Coca-Cola and not water into the cup. While a coke mixture would not necessarily present a danger, it would increase the sugar content of the solution, and might prolong the child's diarrhea. This seemed like an important enough problem to warrant a special pre-test.

An interview guide was developed that same day, and within 48 hours, two members of the team had visited three communities, interviewed 44 women from isolated, moderately isolated and semi-urban areas. Not a single mother confused the solution with coke, all mentioned explicitly that the father was pouring water into the cup. The results were so overwhelmingly conclusive that it was determined to proceed with the poster as designed. The pre-test had resolved a major concern, and given program planners the confidence to proceed with the large-scale printing of an important new material.

ASUNTO: INFORME GIRA A TEUPASENTI, DEPTO. DE EL PARAISO
DE: HECTOR A. VALLADARES
H. EFRAIN VALLEJO

PARA: PERSONAL DE PROCOMSI

1. Propósito de la Gira:

La gira a Teupasenti y dos Aldeas se realizó porque prevalecía una preocupación dentro del equipo y es que la botella dibujada en el Afiche es de Coca-Cola, esto mismo nos hacía temer que las madres, una vez viendo este tipo de botella - tan conocida e inconfundible en Honduras - prepararan el LITROSOL con este refresco.

2. Lugares Visitados:

Teupasenti : Municipio = 2 horas desde Tegucigalpa

Potrerillos : Fácil Acceso = 9 Km. del Municipio

El Rodeo : Difícil Acceso 11 Km del Municipio

La carretera que desde Teupasenti conduce a estas dos Aldeas es casi intransitable en invierno, realidad que deberá tomarse en cuenta para futuras giras a esta zona.

3. Población Entrevistada:

Se entrevistaron un total de 44 personas clasificadas así:

	MADRES	PADRES	ABUELOS
MUNICIPIO	8	2	1
ALDEA DE FACIL ACCESO	10	4	1
ALDEA DE DIFICIL ACCESO	13	5	
TOTAL	31	11	2

4. Resultados Obtenidos:

1. ¿Me puede decir qué es lo que usted ve en este cartel?

Descripción	Municipio	Aldea de Fácil Acceso	Aldea de Difícil Acceso
Remedio	1	3	2
LITROSOL	7	6	12
Líquido	2		1
Medicina	1	6	1
Alimento			2
TOTAL	11	15	18

2. ¿ Con qué está preparado el LITROSOL?

Descripción	Municipio	Aldea de Fácil Acceso	Aldea de Difícil Acceso
Coca-Cola			
Pepsi-Cola			
No sé		3	
Agua(Hervida)	10	12	17
Jugo			
Otra Cosa	1		1
TOTAL	11	15	18

5. Observaciones Generales:

Los entrevistados describieron sin dificultad todo el contenido del Afiche.

La radio ha comunicado a esta población con qué se prepara LITROSOL y qué hay que hacer cuando no tengan botella de un litro en sus casas.

La calcomanía está cumpliendo dos funciones dentro del Afiche:

- a) Es un elemento que identifica LITROSOL como algo familiar, principalmente las personas que si conocen LITROSOL. La mayoría de los entrevistados lo conocen o lo han usado.
- b) Las personas que sí saben leer se auxiliaron de esta calcomanía para responder que el LITROSOL se prepara en agua (hervida fría).

El signo de admiración no fue leído como una "i", "ILITROSOL".

Todavía existe dificultad de pronunciación de la palabra "deshidratado", dicen por ejemplo, "destrozado", "destractado", etc.

Cuatro madres de la aldea de difícil acceso dijeron que la Coca-Cola es de color negro por lo que el contenido de la botella del Afiche no sugiere que se interprete como líquido Coca-Cola.

Tres madres de esa misma aldea afirmaron que lo que contenía la botella del Afiche era "suero", "ingredientes" y "otras cosas", respectivamente.

CONCLUSION:

Por los resultados obtenidos podemos afirmar que el Afiche como está diseñado no sugiere que se deba preparar LITROSOL con Coca-Cola a pesar de que la botella dibujada es inconfundiblemente de Coca-Cola.

APUNTES ADICIONALES:

Los pobladores de la aldea de difícil acceso preguntaron por qué se vendía el LITROSOL a Lps. 0.20 en la aldea de fácil acceso, cuando ellos tienen entendido que por la radio se dice que LITROSOL es gratis.

Se tuvo la oportunidad de platicar con el Dr. J. Moisés Vallecillo en Teupasenti que tiene su clínica independiente del Ministerio de Salud. Este señor es uno de los pioneros del Programa en ese sector. Creemos conveniente que PROCOMSI mantenga comunicación con este Doctor para desarrollar con mayor efectividad nuestras actividades en el área de influencia de Teupasenti.

AGENDA FOR ORIENTATION MEETING OF GAMBIA SITE

REVIEW OF MM&HP IMPLEMENTATION ACTIVITIES

HONDURAS

The campaign officially began on March 1, 1981

RADIO SPOTS

20 radio spots were produced for Phase I

2 radio spots were rejected by the Ministry

13 radio spots are presently being broadcast

A detailed transmission schedule is provided in Appendix A. Six commercial radio stations are being used with a total average of 328 individual spots transmitted each

In addition to the radio spots, three songs have been produced and are being aired 145 times a week. One radio news item on dehydration has been aired on one of the national radio chains.

TRANSMISSIONS MONITORING

Two transmission control systems are being used. The first monitors broadcasts on the two national radio chains. The second monitors broadcasts on the four regional stations. Initial results showed that stations were not complying with broadcast schedules. Station owners were surprised to know that someone was monitoring their broadcast, and their performance has improved considerably once they were confronted with this poor performance. Recent reports showed an 80 percent compliance with negotiated broadcast schedules.

IMPACT MONITORING

Information on recognition is still anecdotal and highly speculative, but during one of the evaluation contractor's recent visit to a rural community, recognition of two campaign themes was high. Articulation of the word "dehydration," however, remained low, although basic understanding of the concept as heard on the radio seemed clear.

PUBLIC RELATIONS

3 newspapers published a news item on the project and oral rehydration.

25 doctors have received Diarrhea Dialogue in Spanish by mail.

A one-hour forum to publicize the oral therapy program with the Director General of Health, the Sub-Director of Maternal Child Care, and a hospital physician included audience questioning during broadcast.

The PANI lottery results newsletter with a circulation of 70,000 included key campaign slogans.

2 television news items on oral rehydration ward were broadcast.

ADDITIONAL PRINTED MATERIALS DISTRIBUTED

Translation and printing of three major papers of Oral Rehydration for the Medical Community:

- 1) "OMS Manual for Dehydration Treatment"
- 2) Robert Parker - Oral Therapy for Diarrhea and Dehydration
- 3) Clements/Levine Study at Materno Infantil, Tegucigalpa, Honduras.
The last two were distributed to over 30 medical professionals.

Others:

- 4) Statistical Form - Monthly report of Dehydration cases.
- 5) Summary of Current Diarrhea & Oral Rehydration Concepts
- 6) Training Programs for:
 - Doctors
 - Nurses
 - Auxiliary Nurses
 - Guardianes
- 7) Translation of Implementation Plan

PACKETS

220,000 packets produced by PANT
120,000 have been labeled
37,600 labeled packets distributed to 74 Auxiliares and 4 hospital facilities
11,850 envelopes containing 2 packets each distributed as part of 37,600

GRAPHIC MATERIALS

	<u>Amount Printed</u>	<u>Amount Distributed To Date</u>
<u>Posters</u>		
Dehydration	2,000	1,338
Breastfeeding	5,000	3,242
Special Infant Care	5,000	3,242
Signs of Dehydration	2,000	97
Rehydration Process	2,000	(150 photocopies)
Litrosol Symbol	20,000	(new)
<u>Others</u>		
Litrosol Flag	1,000	(new)
Litrosol Instruction Envelopes	75,000	(new)
Flyer on Signs of Dehydration	35,000	(new)

TRAINING CONDUCTED

	<u>Actual Amount in District</u>	<u>Amount Trained</u>	<u>Length of Training</u>
Regional <u>Auxiliary</u> Nurses	80	74	2 days
Regional Staff & Doctors	30	12	3 days
Nurses (National Seminar)		34	1 day
PC Health Workers		60	1 day
Doctors in Tegucigalpa		20	

TRAINING PLANNED TO BE COMPLETED
BY JULY

<u>Guardianes</u>	160	1 day (7 hrs.)
<u>Midwives</u>	650	1 day (7 hrs.)
<u>Village Mayor</u>	380	1 day (7 hrs.)

Oral Therapy operating in Materno-Infantil
Servicio Social
Clinic Alonso Suarzo

	Total #	Posters	Packets	Flag	Flyers	Nurses' Guides
Already Distributed						
Hospital	1	14	-	-	-	-
Private Clinic	-	-	-	-	-	-
Regular Hospital CHE	1	14	3,200	-	-	4
CESAMOS	6	642	2,400	-	-	12
CESAR	67	67 Cesar x 101 posters 107=7169	67 Cesar x 400 packets 26,800	-	-	67 Cesar x 2 guides
Others/Ministry/Drs.		80				
To Be Distributed						
Guardianes	160	12	200	1	100	-
Parteras	620	12	200	1	100	-
Alcaldes	800	12	200	1	-	-
Buses						
Public Place in Teguc.						
Billboard						
Newspaper						

PROGRAMACION RADIAL - FASE I

FASE I		LUNES							MARTES							MIERCOLES							JUEVES							VIERNES							SABADO							DOMINGO							Total Cads. Semana														
MARZO - ABRIL		A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G								
DES	HIDRATACION			N ¹	S ²	S ³	S ³	3			N ¹	S ²	S ³	S ³	3			N ¹	S ²	S ³	S ³	3			N ¹	S ²	S ³	S ³	3			N ¹	S ²	S ³	S ³	3			N ¹	S ²	S ³	S ³	3			N ¹	S ²	S ³	S ³	3			N ¹	S ²	S ³	S ³	3			N ¹	S ²	S ³	S ³	3	11 1-24 3-10 5-46 Total-82
				C	C	C	C	C			C	C	C	C	C			C	C	C	C	C			C	C	C	C	C			C	C	C	C	C			C	C	C	C	C			C	C	C	C	C			C	C	C	C	C	73							
VE	CHHO			N ¹	S ²	S ³	S ³	1			N ¹	S ²	S ³	S ³	1			N ¹	S ²	S ³	S ³	1			N ¹	S ²	S ³	S ³	1			N ¹	S ²	S ³	S ³	1			N ¹	S ²	S ³	S ³	1			N ¹	S ²	S ³	S ³	1			N ¹	S ²	S ³	S ³	1			N ¹	S ²	S ³	S ³	1	10 1-36 5-46 Total-82
VERNO	VIDADOS			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1	75
DIS	CHIOS			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1	70							
COMBRICES				S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1			S ²	S ³	S ³	S ³	1								
Total Spots		3	2	12	8	9	9	6	3	2	12	8	9	9	6	3	2	12	8	9	9	6	3	2	12	8	9	9	6	3	2	12	8	9	9	6	3	2	12	8	9	9	6	3	2	12	8	9	9	6	3	2	12	8	9	9	6	3	328						
Vario Canciones		-	-	2	2	6	6	5	-	-	2	2	6	6	5	-	-	2	2	6	6	5	-	-	2	2	6	6	5	-	-	2	2	6	6	5	-	-	2	2	6	6	5	-	-	2	2	6	6	5	-	-	2	2	6	6	5	-	145						

Radio Transmission Schedule

- A - IIRN
- B - CENTRO
- C - AMERICA
- D - SONORA
- E - ORIENTAL
- F - LATINA
- G - HONDURAS (Emisora Nacional)

- 1/2 - CUÑA
- 1² 2² - CUÑA REPETIDA DOS VECES EN EL DIA
- S = DR. Salustiano
- N = Noticiero
- C = Cancion

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ON THE SERVICE OF THE GAMBIA GOVERNMENT

THE REPUBLIC  OF THE GAMBIA

2 November 1980

Dear Health Worker,

We would like to ask your personal help in producing an important new book for all health workers in the Gambia - a Manual on Diarrhoeal Disease Control.

The following pages contain several parts of The Manual, both text and illustrations, which we would like you to "pre-Test" for us. This simply involves looking at the illustrations and text and telling us if they clearly express to you the ideas they are meant to express.

A team from the Mass Media for Infant Health Project will be conducting the pre-testing. Please give them your full cooperation.

Thank you very much

P.R.S. Gowers
Medical Officer of Health

TEST MATERIALS
FOR FIELD TESTING
AND
EVALUATION
ONLY

I N T R O D U C T I O N

This manual has been prepared for all Health Care Workers to use when managing cases of acute diarrhoea. While the Manual focuses on management of diarrhoea in children, the principles equally apply to adults. It is a statement of policy and an authoritative guide for members of the Medical and Health Department and as such supersedes and replaces all previous circulars and books on the subject.

We know you will find it helpful and useful, and trust that you will feel free to write in with your own suggestions for its improvement.

We acknowledge, with thanks, the work of Dr. Andrew Tomkins from the Medical Research Council in preparing this book.

P. R. S. GOWERS

National Programme Coordinator/Manager for D.D.C.



HEALTH WORKERS : *Don't Be Afraid
To Look In A Book For Help.*

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After assessing the child's Hydration Status, then begin to implement the appropriate Treatment Plan. There are three Treatment Plans. Treatment Plan I is to be used for patients with Normal Hydration Status, Treatment Plan II for patients with Moderate Dehydration, and Treatment Plan III for patients with Severe Dehydration.

TREATMENT PLAN I

NORMAL HYDRATION STATUS

Aim: To ensure that Hydration Status remains normal, thus preventing dehydration.

1. Weigh the child.
2. Show the mother how to make and administer the Home Mix.
3. Tell her the amount to give the child, using the information in the box below.
4. Advise her to return if the child's condition worsens.

HOW MUCH HOME MIX TO GIVE

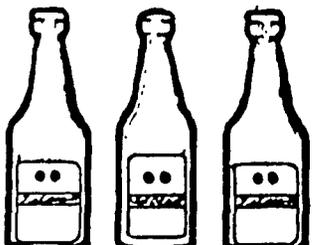
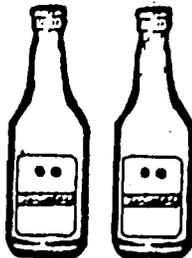
* For 24 hours, between breast feeds, give:

Child weighing LESS THAN 5 kg (0-6 months old)	- 300 ml (1 empty Julpearl bottle)
Child weighing MORE THAN 5 kg (6-18 months old)	- 600 ml (2 empty Julpearl bottles)
Child weighing MORE THAN 10 kg (18 months and older)	- 900 ml (3 empty Julpearl bottles)

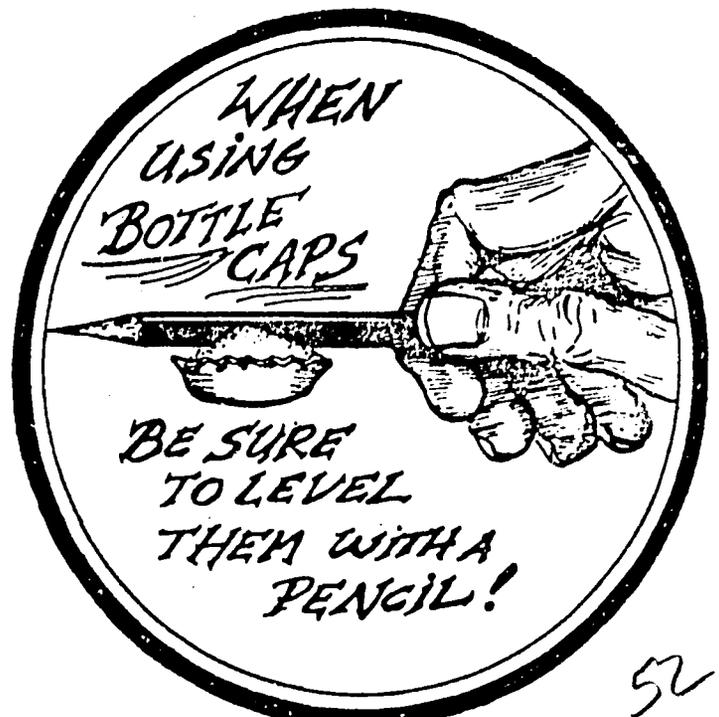


UNDER 5kg

OVER 5kg
UNDER 10kg.



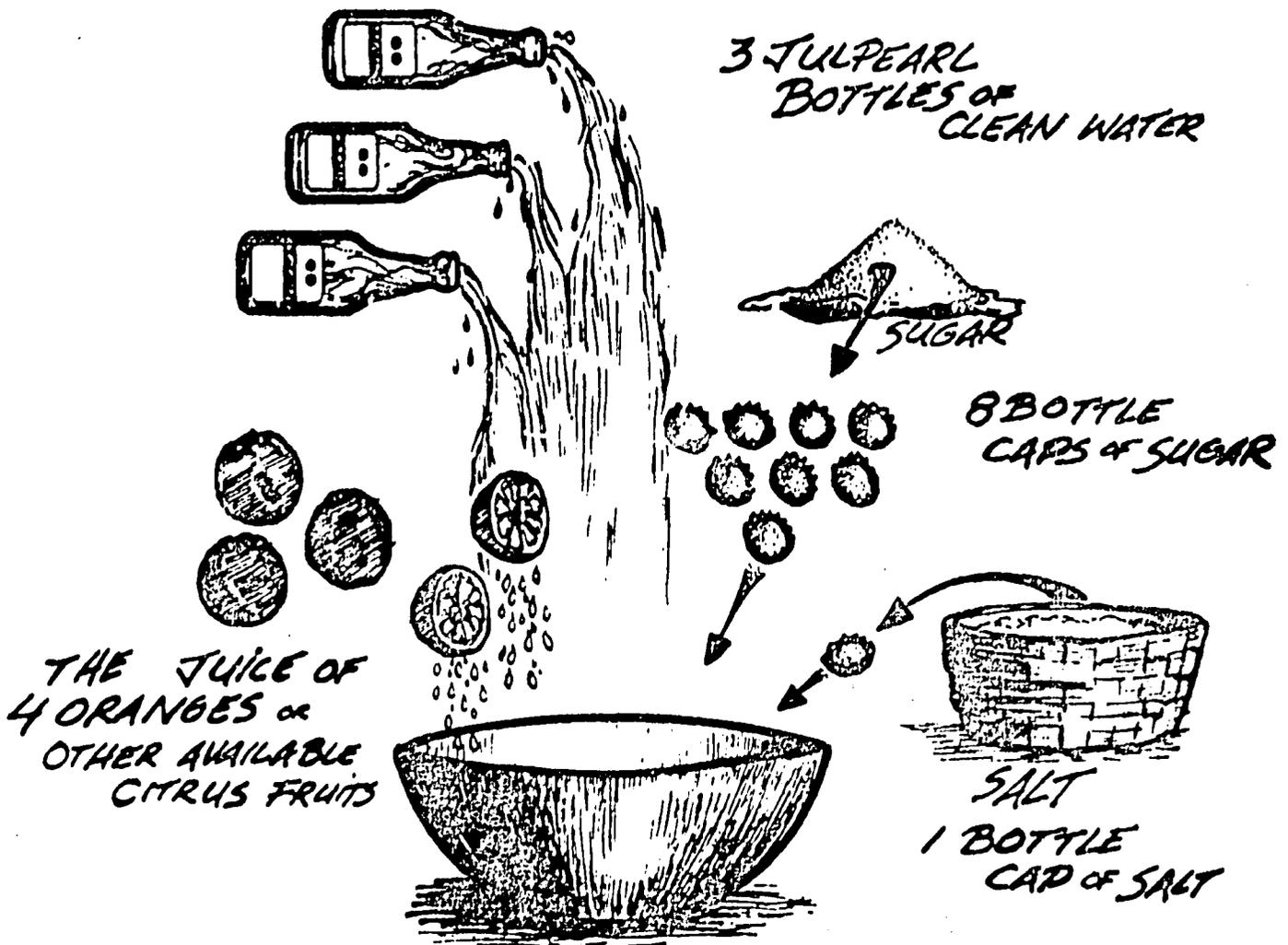
OVER 10kg.



TREATMENT PLAN I

HOME MIX RECIPE: TEACHING PROCEDURE

1. Wash hands with soap and water.
2. Use clean utensils and the cleanest water available.
3. Pound salt if necessary.
4. Do not make Mix yourself. Instruct and supervise only.
Involve the mother (or mothers, if you are instructing a group) in the process.
5. Teach the following RECIPE:
 - * Measure out 3 JULPEARL BOTTLES of clean WATER into a clean container.
 - * Measure out 1 JULPEARL CAP of SALT.
 - * Measure out 8 JULPEARL CAPS of SUGAR.
 - * Squeeze out the juice of any CITRUS FRUIT - oranges, lemons, or limes if available. (The juice of four oranges is best.)
 - * Stir until DISSOLVED.
6. Ask the mothers, to count out loud as each measurement is being added to the container.
7. Review the measurements of each ingredient until you are sure the women remember them.



MOTHERS SHOULD CONTINUE TO BREASTFEED!

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THINGS TO REMEMBER WHEN TEACHING THE MOTHERS

- * Explain to the women that the child is weak because he has lost water and salts. and may die if this continues.
- * Tell the women that Oral Rehydration Fluid (O.R.F.) whether Home Mix or W.H.O. Solution is a medicine that will replace the lost water and salts, and will help make the child strong again.
- * Advise the women to continue with treatment even if the diarrhoea does not stop immediately. The stools should eventually lessen.
- * Advise the women that O.R.F. should be given even if vomiting occurs. They should wait ten minutes and then continue giving O.R.F.
- * Advise the mothers to return if they think the child's condition is worsening.
- * Emphasize that it takes time to get a child to drink as much O.R.F. as he needs. It must be given at frequent intervals, in an upright position, with a suitable container. No feeding bottles!
- * Explain that O.R.F. must be stored in a clean container with a cover, and must be used up the same day.
- * Warn the women that giving laxatives or purgatives to their children can be very dangerous, and even fatal.
- * Encourage the women to continue breastfeeding.
- * Encourage the women to give their children food rich in calories and protien.

HEALTH WORKERS, LOOK FOR WAYS TO SHARE YOUR KNOWLEDGE.



TREATMENT PLAN II

MODERATE DEHYDRATION STATUS

Aim: To replace present losses and to anticipate losses in the next 24 hours.

1. The child must be weighed to determine how much Solution he needs.
2. Mix the W.H.O. Solution yourself. DO NOT teach the mother how to do this.
3. Supervise the mother in administering the Solution for 4-6 hours in the Health Centre. If the child doesn't drink enough volume, use a nasogastric tube if available.
4. After 4-6 hours, reassess Hydration Status. If worsening, begin implementing Treatment Plan III. If improving, give the mother enough Solution to last overnight, using the amounts given in the Box below. Instruct her to return in the morning for reassessment and further treatment.
5. Review "Things to Remember When Teaching the Mother" on the opposite page.

HOW MUCH W.H.O. GLUCOSE-ELECTROLYTE SOLUTION TO GIVE

- * For the first 4-6 hours, give:
20 mls/Kg /Hour
- * Reassess after 4-6 hours
If worsening, go to Treatment Plan III
If improving, give 100 mls/Kg /Overnight
- * Reassess the next morning
If Hydration Status is normal Treatment Plan I
If Moderate Dehydration Persists Treatment Plan II
If Severe Dehydration Develops Treatment Plan III

Reassess the next morning

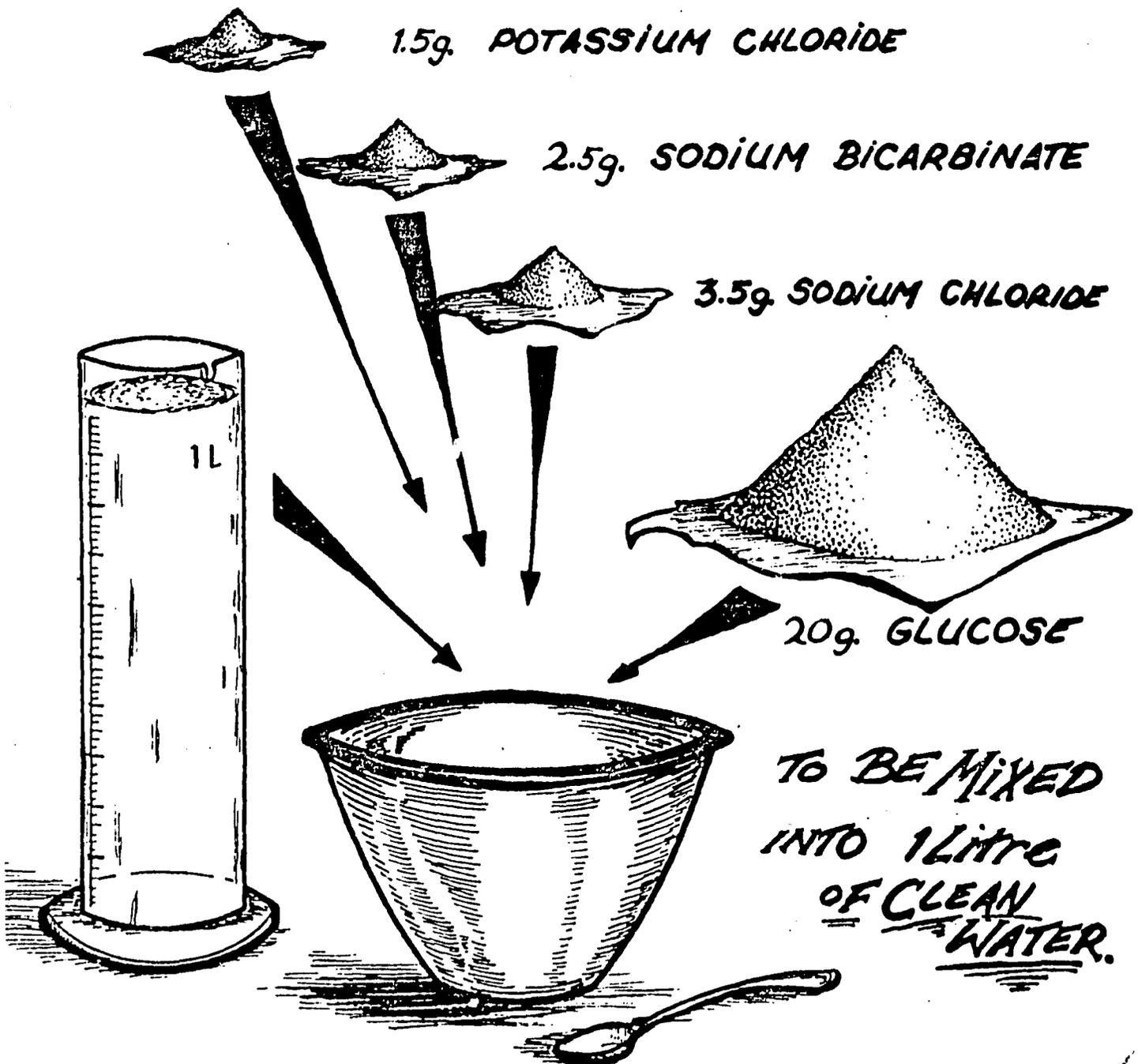
- If Hydration Status is normal ——— Treatment Plan I
- If Moderate Dehydration Persists ——— Treatment Plan II
- If Severe Dehydration Develops ——— Treatment Plan III

TREATMENT PLAN II

W.H.O. GLUCOSE-ELECTROLYTE SOLUTION

All medical facilities will be provided with supply of the W.H.O. Glucose-Electrolyte Solution packets. In the event that these supplies run short, the correct mix can be made by dissolving the following in one litre of water:

Sodium Chloride	3.5 g
Sodium Bicarbonate	2.5 g
Potassium Chloride	1.5 g
Glucose	20 g
OR Sucrose	40 g



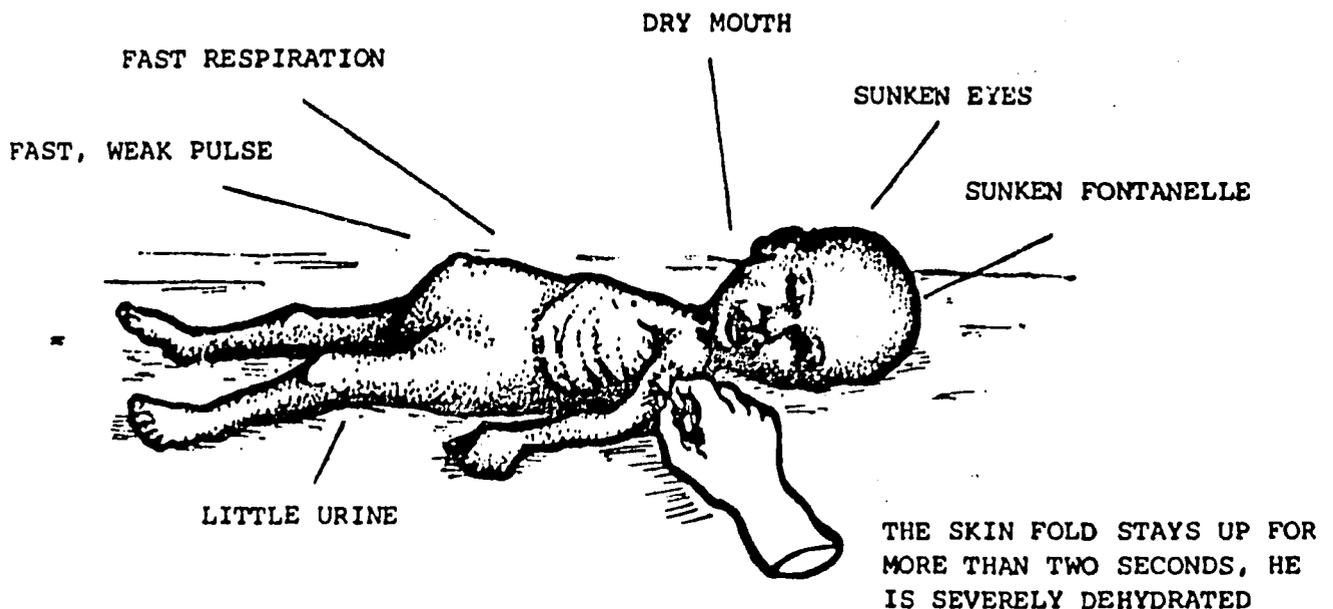
TREATMENT PLAN III

SEVERE DEHYDRATION STATUS

Aim: To immediately and urgently replace present losses and to keep pace with losses over the next 24 hours.

TO HEALTH WORKERS WITHOUT INTRAPERITONEAL (I.P.) OR INTRAVENOUS (I.V.) EQUIPMENT

1. Begin Oral Rehydration Therapy (O.R.T.) immediately. Do not wait!
* For the first hour, give:
20 mls/Kg of W.H.O. Solution, using the nasogastric tube if necessary.
2. Arrange for speedy transfer to a facility that is equipped to rehydrate with an I.P. or an I.V.
3. Appoint an escort to continue O.R.T. en route and to ensure speedy admission.

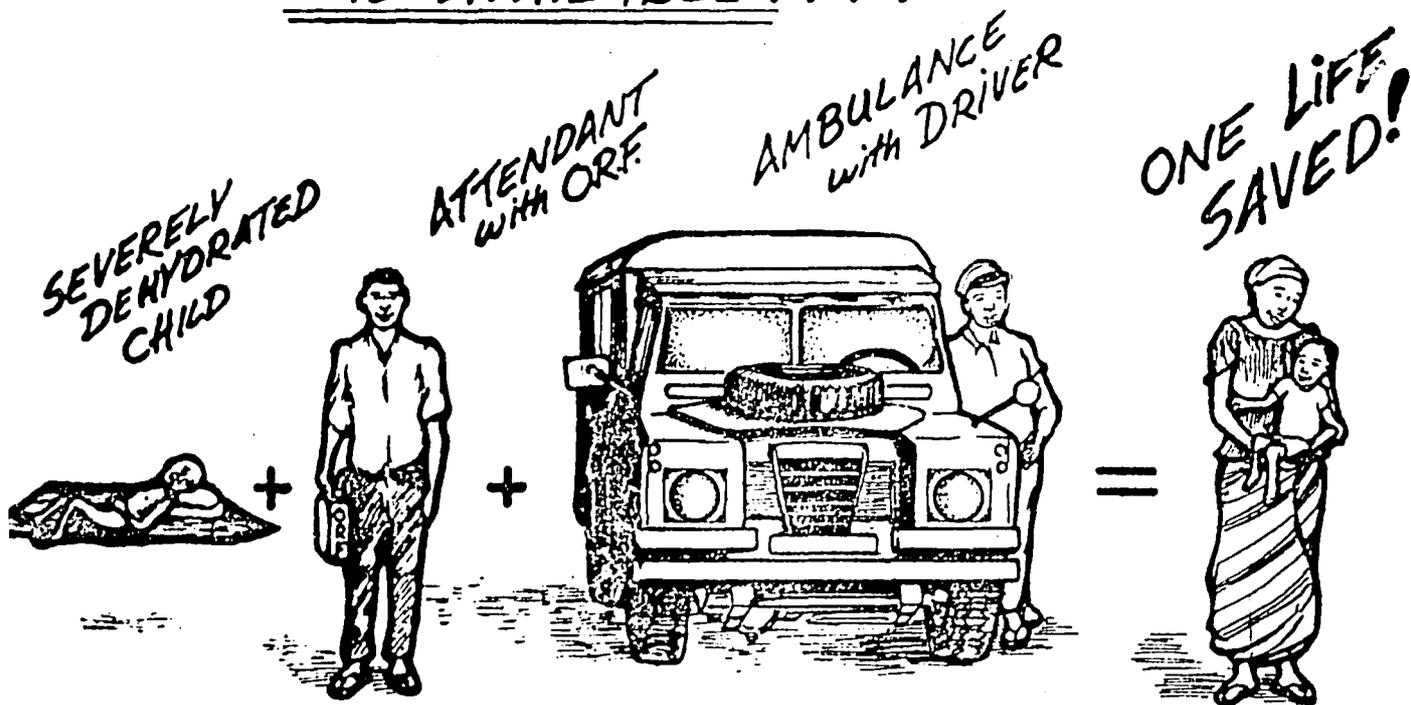


DEHYDRATION MEANS LOSING FLUID:

This child is severely dehydrated. Everyday he is losing as much as 10% of his body weight in fluids and salts. If the fluids and salts are not returned to his body, he will surely die - he needs help fast!

LIFE SAVING EQUATION

WHERE NO I.V. OR I.P. EQUIPMENT
IS AVAILABLE. . . .



A SEVERELY DEHYDRATED BABY
MUST BE RUSHED TO THE NEAREST MEDICAL CENTER.

TO HEALTH WORKERS WITH INTRAPERITONEAL (I.P.) AND/OR INTRAVENOUS (I.V.) EQUIPMENT

1. Begin intraperitoneal rehydration immediately. Do not wait!

I.P.: *For the first hour, give:
50 mls/Kg of I.V. Solution

2. Reassess after 1 hour. If improving, continue the above Oral Therapy until rehydrated. If not improving, transfer to I.V.

I.V.: * Immediately, give:
20 mls/Kg
* Then, give:
10 mls/Kg/Hour until rehydrated

3. Even while using I.P. or I.V., continue with O.R.T. if the child can drink.

* 20 mls/Kg/Hour of W.H.O. Solution

WHY DIDN'T YOU BRING YOUR CHILD SOONER!



TREATMENT PLAN III

AVAILABLE I.V. SOLUTIONS

(Only Available at Selected Centres)

In order of preference:

- * $\frac{1}{2}$ STRENGTH DARROW'S SOLUTION WITH 2.5% GLUCOSE
- * HARTMANN'S SOLUTION
- * DEXTROSE - SALINE
- * NORMAL - SALINE

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Banjul
17 July 1981

Dear PCV:

As you may be aware, our Mass Media and Health Practices Project has recently gotten underway at the Medical and Health Department.

Eventually the Project will conduct an educational campaign, using radio, print and graphic materials, and health workers, on the prevention and treatment of acute infant diarrhea. At this point, however, we are planning a field research phase to find out as much as we can about current beliefs and practices. One of the first important questions we must answer is what system of measurement of oral rehydration salts makes most sense in the village context.

While we hope to be able to meet many of you in your villages in the future to discuss these issues, could you please take a few minutes now to answer the questions below and drop this sheet off to Meri Ames the next time you are in Banjul (or, for the health volunteers, at your in-service training next month). Thank you very much!

Mark Rasmuson
Project Field Director

Name: _____ Post: _____

1. How many families in your village have the following items in their homes?

	<u>Most Families</u>	<u>Some Families</u>	<u>Few Families</u>
--	----------------------	----------------------	---------------------

- | | | | |
|---|-----|-----|-----|
| a) a 1-liter bottle (What type? e.g. a Niani oil bottle? _____) | ___ | ___ | ___ |
| b) a small (330 ml) Julpearl bottle | ___ | ___ | ___ |
| c) an undamaged Julpearl bottle cap | ___ | ___ | ___ |
| d) a teaspoon, 5 ml. | ___ | ___ | ___ |
| e) other vessels for measuring (type and size: _____) | ___ | ___ | ___ |

2. How available in village shops are the following items?

	<u>Usually Avail.</u>	<u>Sometimes Avail.</u>	<u>Rarely Avail.</u>
--	-----------------------	-------------------------	----------------------

- | | | | |
|---------------------------------|-----|-----|-----|
| a) salt (course or fine: _____) | ___ | ___ | ___ |
| b) sugar (cube or gran.: _____) | ___ | ___ | ___ |
| c) citrus fruit (which? _____) | ___ | ___ | ___ |
| d) bananas | ___ | ___ | ___ |
| e) papayas | ___ | ___ | ___ |
| f) coconuts | ___ | ___ | ___ |

3. What is the nearest health center or dispensary to you? _____
To the best of your knowledge, does this facility have a supply of Oralyte (Yes ___ No ___), Di-Oralyte (Yes ___ No ___), graduated vessels for measuring fluids (Yes ___ No ___; if yes, in mls. ___ or fl. ozs. ___)? What formula do the health workers at this facility recommend to villagers for mixing oral rehydration salts? _____

4. What formula do you recommend to village people for oral rehydration? _____

APPENDIX G

WATER AND SANITATION

SAMPLE GRAPHIC MATERIALS

JUANITA Y LA GOTITA... SON DOS PERSONAJES DE HISTORIETAS CON FINES PEDAGÓGICOS... FUERON CREADOS ESPECIALMENTE PARA EL PROYECTO DE AGUA Y SANEAMIENTO AMBIENTAL RURAL DE HONDURAS... ESTAS HISTORIETAS HAN SIDO APROBADAS POR EL MINISTERIO DE EDUCACIÓN DE HONDURAS Y SERÁN USADAS EN LAS CLASES DEL 1º A 6º GRADOS DE LAS ESCUELAS RURALES... LAS HISTORIETAS CONTIENEN: UN CUESTIONARIO Y VOCABULARIO, ADEMÁS ESTÁN ACOMPAÑADAS DE UNA GUÍA DE APLICACIÓN PARA LOS MAESTROS.

HIERVE EL AGUA DURANTE QUINCE MINUTOS... ASÍ MATAS A LOS MICROBIOS...

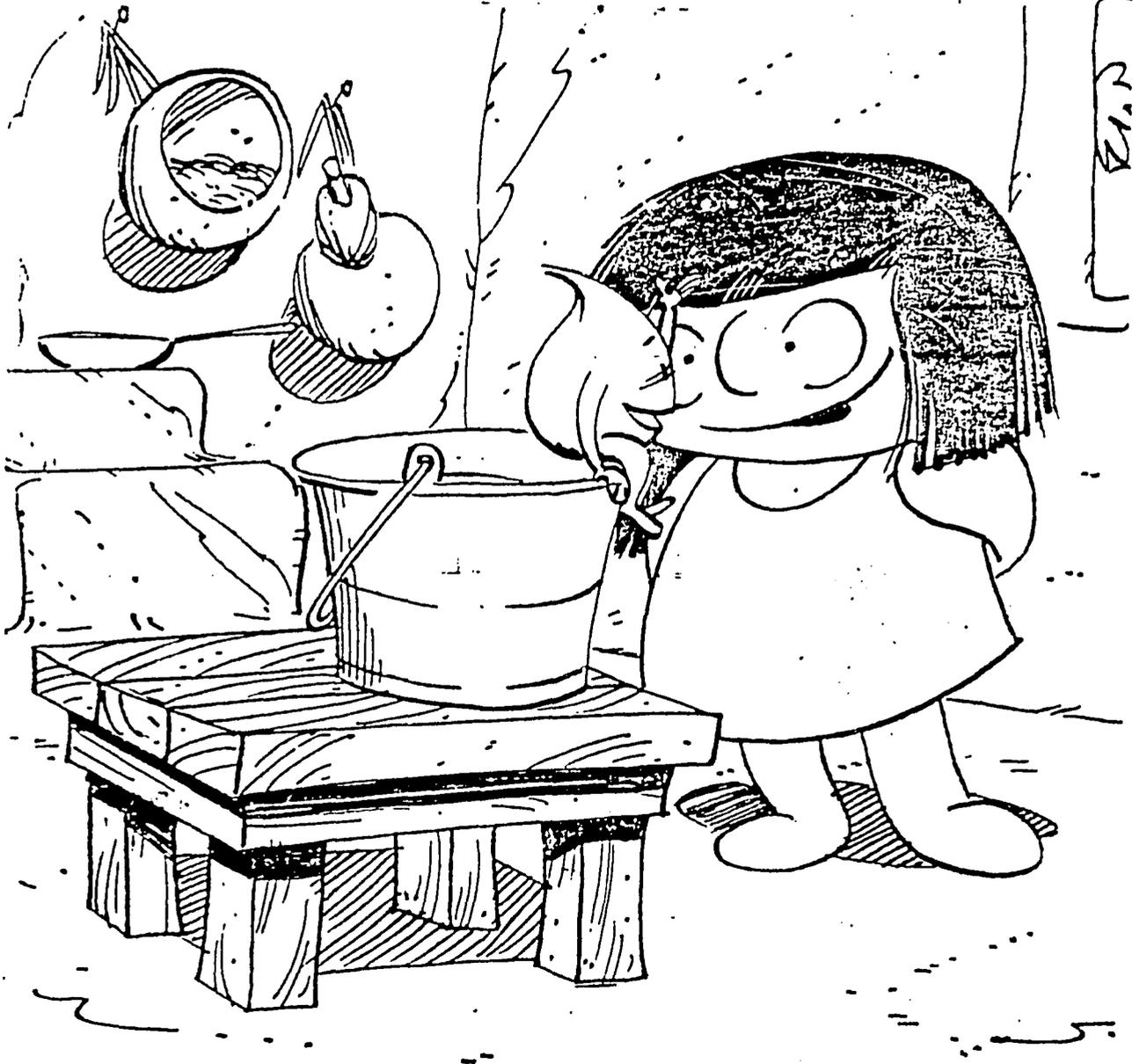


**JUANITA
LA GOTITA**

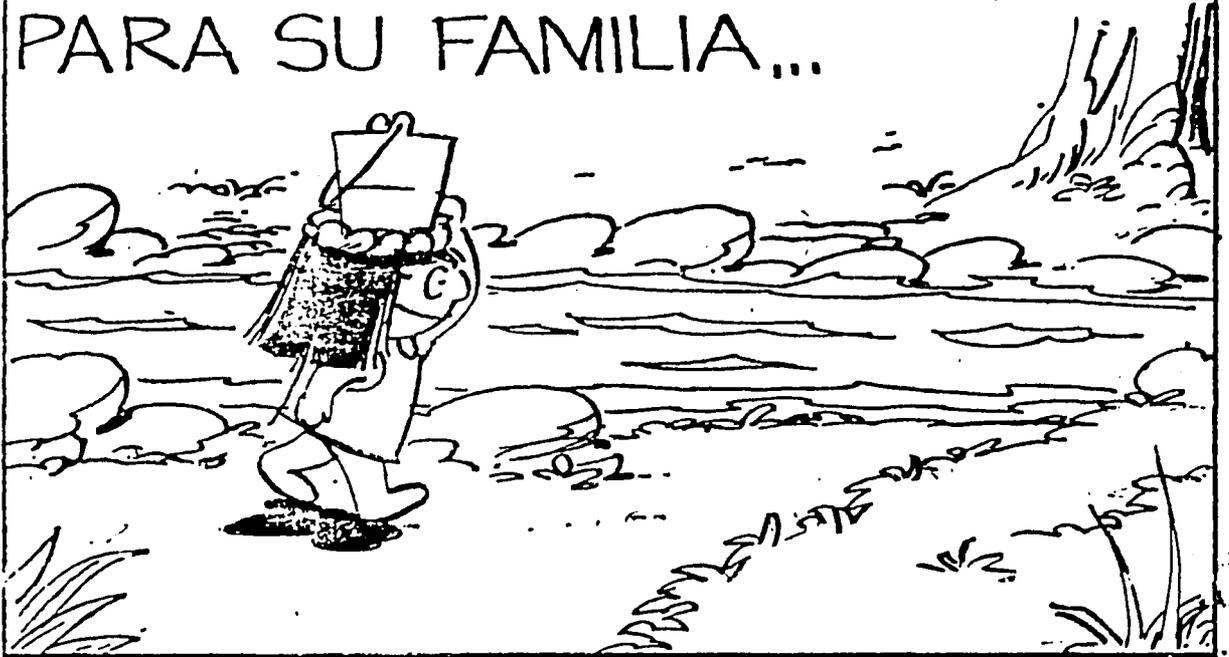
A TRAVÉS DE UNA SERIE DE DOCE HISTORIETAS SE DRAMATIZAN PROBLEMAS Y SOLUCIONES RELACIONADOS CON SALUD, HIGIENE, AGUA Y SANEAMIENTO AMBIENTAL EN ZONAS RURALES DE HONDURAS...

EL PÚBLICO DE LAS HISTORIETAS SON ESCOLARES DE SEIS A DOCE AÑOS.

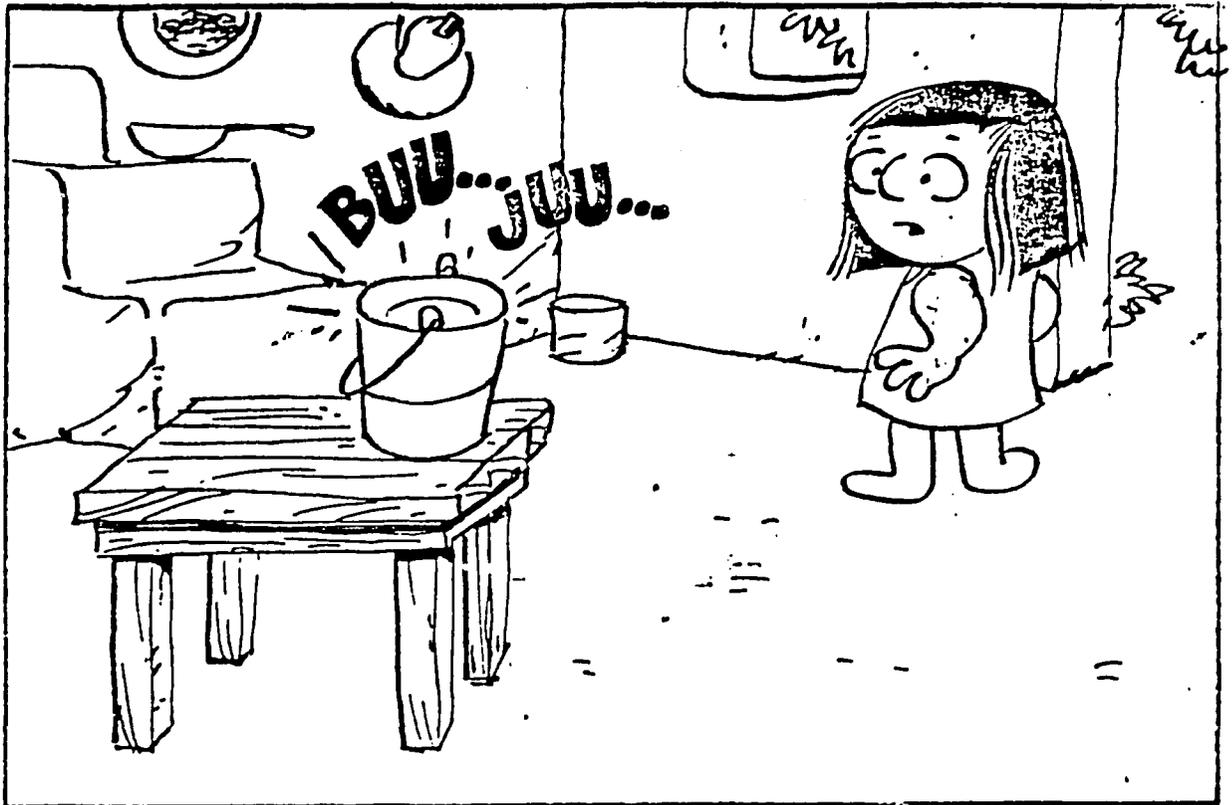
JUANITA y LA GOTITA



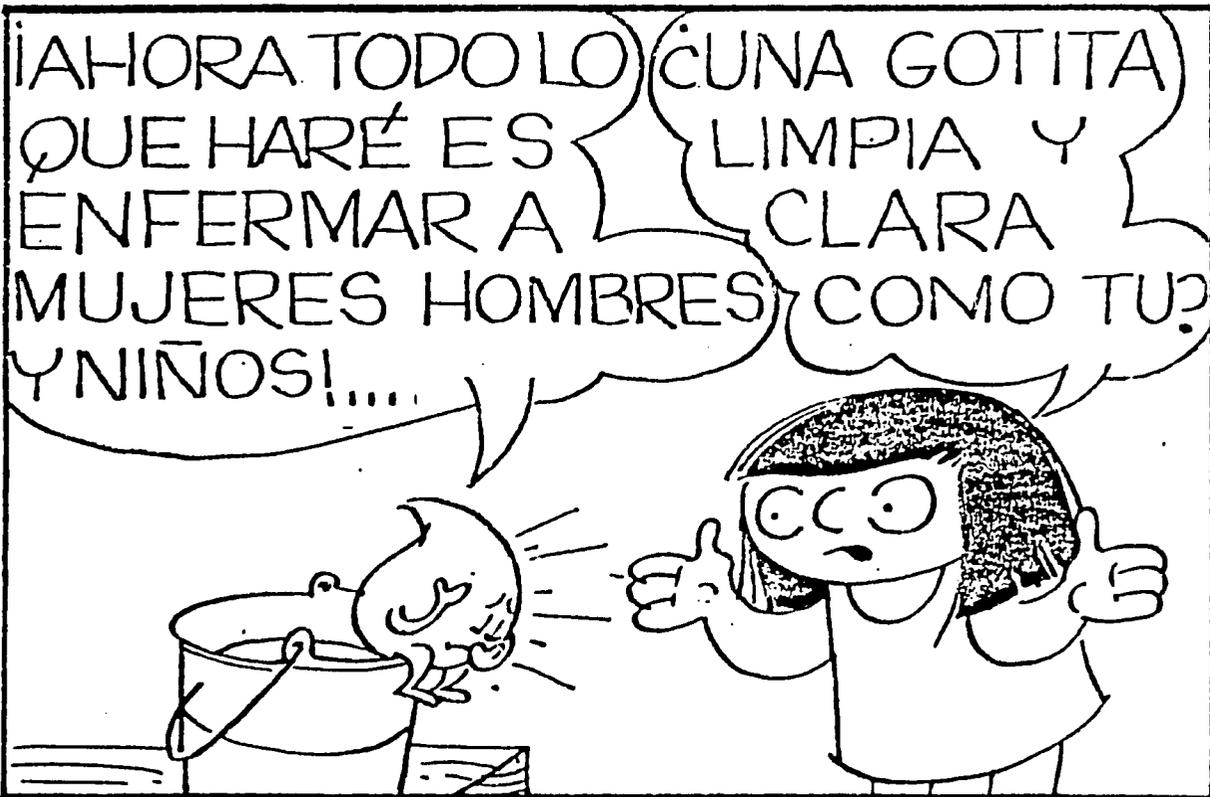
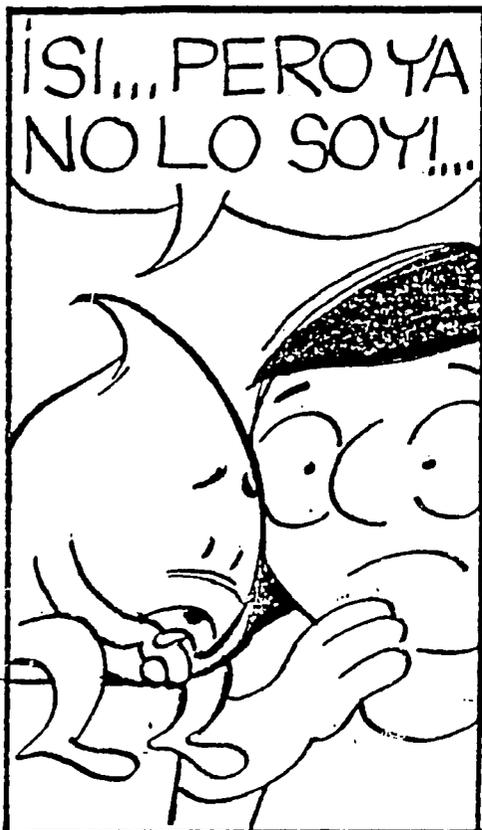
UNA LINDA MAÑANA DE SOL,
JUANITA VA A BUSCAR AGUA
PARA SU FAMILIA...



64







61

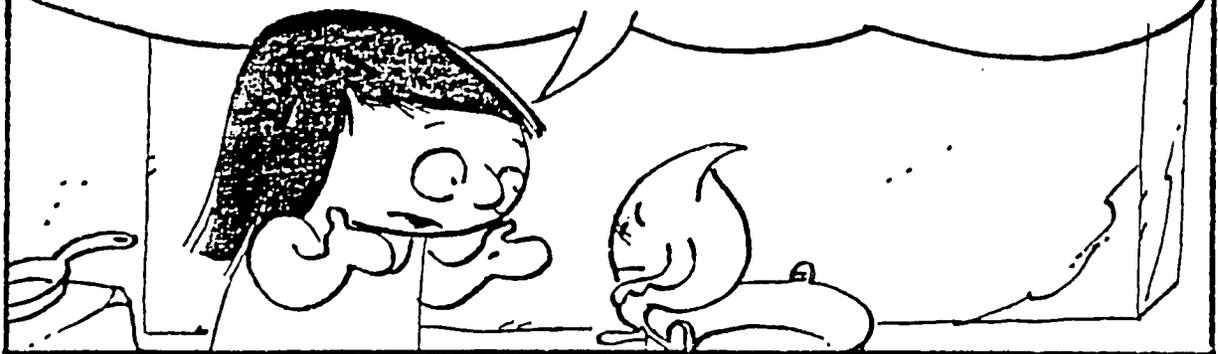


ES





¡OH NO!... ¡NOSOTROS NO
HARIAMOS ESO!... VAMOS A
BUSCAR AGUA DONDE TU
ESTABAS PORQUE ES LIMPIA
Y PURA... ¡JAMAS PONDRIAMOS
ENFERMEDADES EN EL AGUA!

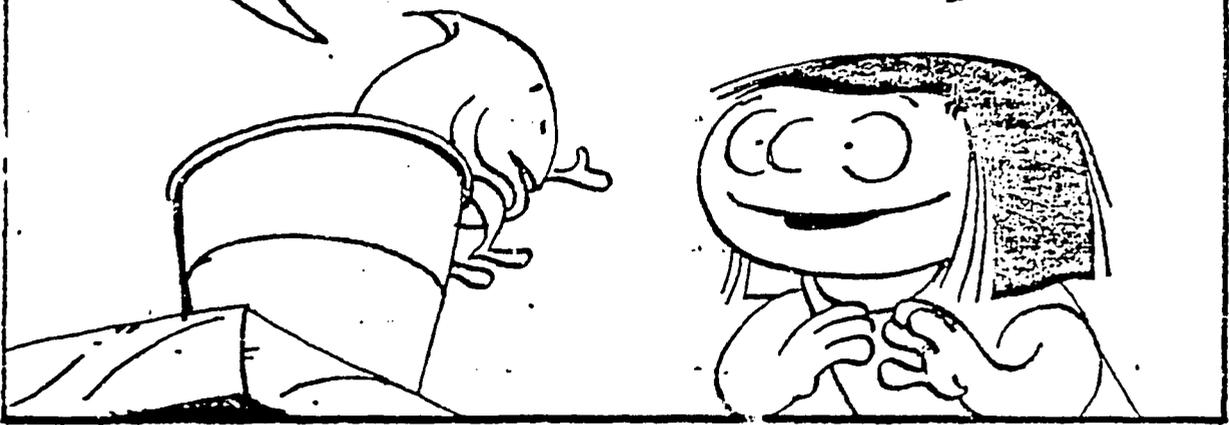


¡SI!... ¡SI LO HICIERON!... ¡LA GENTE
HACE PUPU POR TODOS LADOS
Y USTEDES, CUANDO VAN POR
AGUA CAMINAN EN EL PUPU QUE
TIENE MUCHOS MICROBIOS... Y
DESPUES ENTRAN EN
EL RÍO A SACAR AGUA,
CON LOS PIES
TODOS SUCIOS!...



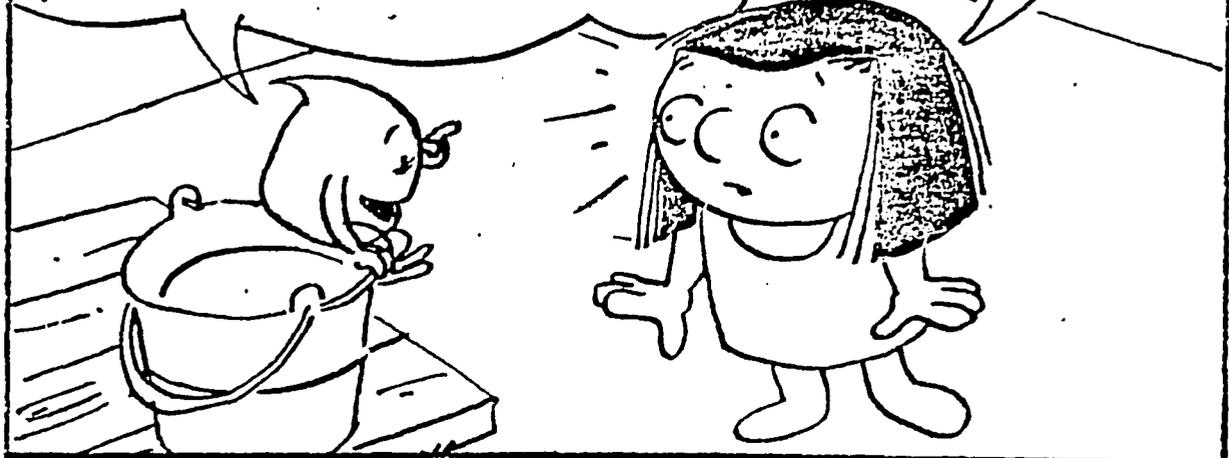
BUENO... ¿ME HARIAS
UN FAVOR PARA
AYUDARNOS A TODA
TU FAMILIA Y AMIGOS...

¡SI!... ¡SI!...



PON EL BALDE
SOBRE EL FUEGO
E HIERVEME POR
QUINCE MINUTOS...

¡PERO!...
¡TE
QUEMARÁS!







¡YA PASARON
LOS QUINCE
MINUTOS!...¿COMO
ESTAS, GOTITA?...

¡AHORA SI
ESTOY BIEN!
¡HE VUELTO
A SER PURA
Y YAINO

ENFERMARÉ
AL QUE ME
TOME!...

FIN

July 24, 1981

MEMORANDUM

TO: See Distribution

FROM: S&T/ED, Anthony Meyer, Ph.D. *AM*

SUBJECT: TRIP REPORT: TDY Honduras, July 12-18, 1981, regarding Project 931-1918, "Mass Media and Health Practices" and to planning of a joint PAHO-AID Workshop related to it.

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Permanency of the three MOH positions	10
Finalization of Plans for the PAHO-AID Workshop	11
Problems Remaining to be Solved	12

Purpose of Trip:

In the letter of agreement between the GOH and AID/W three MOH counterpart positions in the Division of Health Education were promised for the "Mass Media and Health Practices" project applying the use of communication methodology to the treatment and prevention of infant diarrhea. The three positions were to further the project purpose of institutionalizing the capacity of the MOH to conduct health education more effectively for

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national diarrhea control and other purposes after the end of the project. Severe economic constraints and stringent personnel ceilings ordered by the Ministry of Planning have to date prevented MOH assumption of the counterpart positions after their initial funding under the project. The trip enabled me and USAID/Tegucigalpa to pursue the question of their funding by GOH beginning in FY 82 (January 1982) being budgeted at the present time.

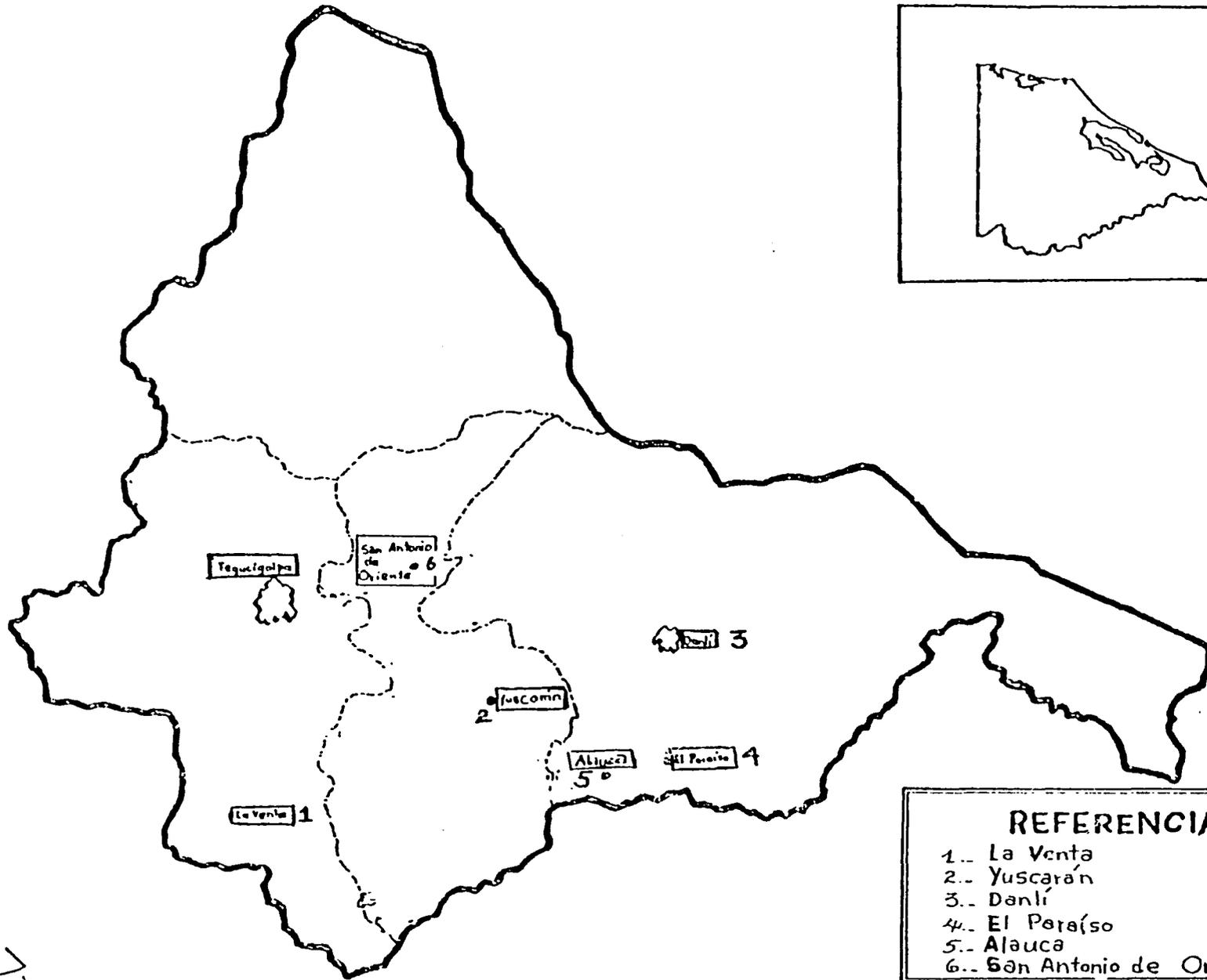
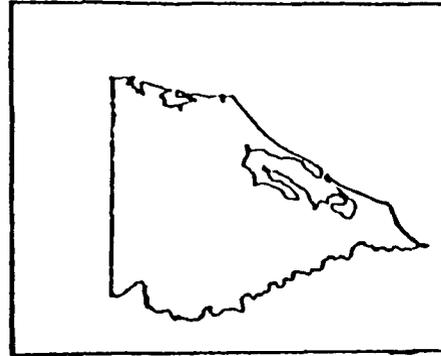
A secondary and related purpose of the trip was to obtain GOH final approval and to complete plans for a PAHO-AID Central America regional workshop on the development of national diarrhea control programs using the newly published WHO training modules and featuring country presentations, including site visits to the Mass Media and Health Practices project. Thirdly, the trip afforded an opportunity to observe the project in progress. Separate memoranda are being prepared regarding other trip outcomes vis-a-vis an AID-funded CARE nutrition education project and an AID-assisted MOE curriculum reform effort.

The Project in Progress

The project takes place in Health Region I with some 350,000 population (shown on the map), and is perceived by the MOH to be the first stage of what they hope to develop into a national program. The Mass Media and Health Practices project (in Spanish, PROCUMSI for Proyecto de Communication Massive Aplicado a la Salud Infantil) uses radio (four "local" stations and two "national" stations with a variety of formats), graphic materials (posters, flags, ORS packet instructions, photonovels), and the training of health center nurses, assistant nurses, guardianas, mayors and assistant mayors in the distribution of ORS packets and related instruction. The project also had to establish a distribution system for the Honduran-produced ORS packets and has experimented with packet shape, design, and labeling as well.

The focus on Health Region I will continue a full two years until September 1983, although applications to a national program are already beginning. After a six-month period of investigation of cultural practices, message development, and pretesting, the project went "on the air" in March with a promotional, information campaign. Presently, the emphasis has shifted to distribution and use of the ORS packet, "Litrosol" (a copy of one face of the 2-packet pouch given to mothers is included here); the importance of breastfeeding; the continuation of breastfeeding and other foods during diarrhea; the importance of rehydration as distinguished from diarrhea cessation; what Litrosol is, where to get it, what to do with it. Training for the various field personnel distributing Litrosol will be completed during August. Then the educational messages will shift to a prevention phase as the peak diarrhea season ebbs.

Región 1



REFERENCIAS	
1..	La Venta
2..	Yuscarán
3..	Danlí
4..	El Paraíso
5..	Alajuela
6..	San Antonio de Oriente

H-3

As much as possible, positive reinforcement and instruction based on ideas and practices already extant in the culture are the basis of messages. For example, one of the most popular radio songs praises mothers for the life-giving, nurturing relationship in breastfeeding; a humorous radio spot features two worms discussing their relationship to dirt and diarrhea (local beliefs have it that all humans have worms in a sac in their gut; such things as dirt and improper eating cause the worms to go wandering out of the sac, causing sickness; cure implies containing the worms in the sac.); one poster features a mother enshrined in a heart with laurel on head and rose in hand, as reproduced in miniature on the packet pouch reproduced here.

Visits to Project Sites.

The trip was rich in visits to the field: one to the parastatal ORS production plant, PANE, and to two villages within 50 kilometers of Tegucigalpa was required to introduce Dr. James Rust, PAHO/W and the PAHO epidemiology advisor at the ministry, Dr. Alvaro Rueda, to the project; the remaining three visits enabled me to review evaluation procedures with the evaluation contractor (Stanford University) staff and implementation procedures with the implementation contractor staff (Academy for Educational Development) and MOH personnel. In all, I visited La Venta del Sur, Yuscaran, Danli, El Paraiso, Alauca, and San Antonio de Oriente, shown on the map. The furthest trip was to Alauca, 120 kilometers from Tegucigalpa. Because of the evolution of events during the week, none of the sites had advance warning of my arrival.

In general, I was able to verify that the project was in fact "out there" as planned. As I explained in my final briefing to Dr. Anturo Zelaya, Director of the Division of Health Education, and to the Division staff: I kept looking under stones to see what I could find; I kept poking through the surface of the project; and everywhere I looked, no matter how deeply I probed, I found evidence of the project. In-depth interviews were conducted with a rural physician; a male nurse; a remotely placed health aide (guardiane) working out of her home; a mother who had used ORS solution; and an alcalde principal (a senior mayor charged with distribution of bags of ORS to scattered assistant mayors as part of the distribution system). We interviewed the principal of a primary school to gain the perspective of an "opinion leader;" visited a local radio station in El Paraiso, interviewing the manager and owner and examining the station logs; interviewed one of the project's two radio listening monitors; and attended a training session in the use of ORS for guardianas and midwives. Activities related to the evaluation contract are described below.

EVITAR QUE SU TIERNO O NIÑO SE DESHIDRATE
POR LA DIARREA.

LITROSOL

Mezcle un sobre
de LITROSOL
en un LITRO
de Agua



1

1 Llene hasta un litro.

2 Abra por el corte.

3 Eche las sales.

4 Tape y agite.

2

LITROSOL Agua

Dele suero así:
Dos tazas de LITROSOL
Después una taza de
Agua.—Dárselo así
hasta terminar **TODO**
EL LITRO EN 24 HORAS



3



Si vomita, espere
15 minutos. Siga
dándole el LITROSOL
más despacio y
con cucharita.



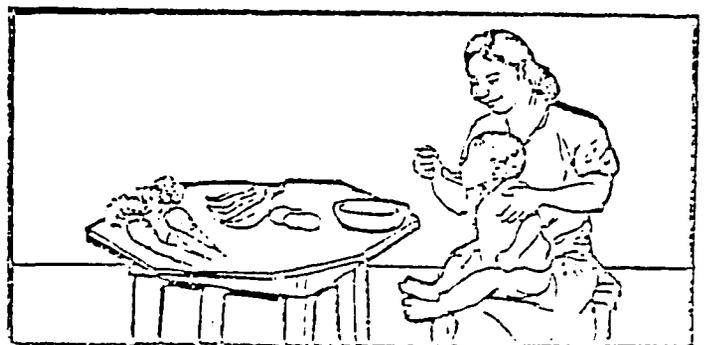
4

Madre que pecho da...

Es madre de verdad

Siga dándole el pecho
aunque tenga diarrea

5



Después de 6 horas de
darle LITROSOL, déle
comida suave como
sopas y verduras deshechas
para que no se desnutra



The Efficacy of Training

The field workers knew their material. We interviewed the male nurse for over an hour, asking him to repeat exactly what procedures he followed and what he told the mothers. He did well, including an excellent discussion using the project's instructional posters. His records were well kept. He had treated 41 cases over a total of 21 days in June and July, eight of them serious for which he administered the ORS himself. He had fifteen posters up in and around the health post.

Dr. Rueda, the PAHO advisor, stood fascinated as he heard the alcalde principal describe how he, in turn, could answer questions regarding ORS. Here was a respected community leader with no formal training in medicine clearly explaining the importance of continued breastfeeding and nutrition; how to mix ORS; to throw out the remainder of the liter after 24 hours; and so forth. There were 5 posters surrounding the entrance to this civic center building. He and the nurse lived in San Antonio de Oriente where project personnel had visited only twice to deliver ORS packets.

Three extremely rugged kilometers past Alauca we interviewed a guardiane, the furthest outreach position in the health system. Poster and Litrosol flag in front, she too demonstrated how she instructs mothers perfectly.

Taking a step back from those trained to the source of training, I attended a training session for guardianas and midwives in La Venta del Sur conducted by an MOH area supervisor trained by our project. It was an excellent, interactive session which included small group discussion, role-playing and a variety of teaching aides including our instructional posters, the supervisor's own hand-drawn flip chart, and a demonstration doll. The quality of training was in fact adequate to explain the quality of performance observed among the field personnel.

The Impact of Radio

I thought I would obtain a different and perhaps issue-raising perspective from the primary school principal at Alauca. We were led to her home. Inside, the first thing that greeted us was a project poster on her wall. She had put a second one up at the school. Hearing about the program on the radio, she had obtained the posters, knew what Litrosol was and where to get it, and had passed this information on to some mothers. She thought highly of the program.

There were about 10 kids standing around inside her home. Three times the first two lines of different radio jingles were called to them; at least four kids promptly completed the slogan.

At radio station El Paraiso, a large white cardboard sign over the announcer's microphone had the entire schedule of project announcements posted. This was reflected in their station log. Project posters were all along the hall of the station, and during the two weeks prior to my visit, the first two weeks of Litrosol spots on that station, two to three mothers each week had come to the station seeking Litrosol. They were sent on to the health post.

All the field workers interviewed could describe several of the radio spots or songs.

The project listening monitor at Danli was a factor in station compliance. None of the stations followed their schedule well at first. The two national stations were easy to correct. They had never been mentioned before. The four local stations took several rounds of discussions, including the withholding of a check. By the time of my visit, the monitor was recording near-perfect compliance with the agreed-upon schedule.

What the Mothers Think

It seems that demand in the "marketplace" is high and the opinion positive. According to the field workers, mothers think well of ORS, believe it revives their infants, and in spite of instruction that ORS combats dehydration alone, believe that it lessens diarrhea. This may be due to the initiation of treatment in the final two or three days of an incident.

The one mother interviewed had come 27 kilometers to Yuscaran for a packet for her child (with her) because her health post at Oro Poli had run out. She was the "sweep" for that health post, and claimed that the demand was high for ORS and that it was considered to be very effective. She herself was able to repeat the instructions related to ORS.

Packet Production

Dr. Rust and I met with the director of PANE, Dr. Mario E. Costillo Escobar, at PANE and toured the plant. We discussed packet design and production to meet national and perhaps export demand. The plant is excellently run. The separate ORS ingredients are measured into a large container (oil barrel size) and mechanically mixed. The mixed ingredients are fed by machine into pre-formed packets held by hand and then sealed by hand feeding into a sealing machine. Labeling and packing for the PROCUMSI program takes place in a separate room. Temperature and humidity control is excellent. Samples are tested every 15 minutes for quality control. The results of these tests indicate a completely satisfactory consistency of production. With automation, Honduras could easily meet its national needs and, depending on the size of machine, begin an export operation.

Packet Distribution

Packets are distributed by the project rather than through the existing MOH medical supply system. The MOH area supervisors and the project staff distribute plastic bags of 50 pouches, each with two packets, as the training progresses and as they undertake regular rounds of the area. Shipping replacement supplies sometimes is done by bus. The project proceeded in this fashion because the normal MOH distribution system for medical supplies could not provide appropriately timed or extensive enough coverage.

The project is also experimenting with the use of town mayors and their satellite village auxiliary mayors as distribution points for packets so that coverage in some areas is more comprehensive. The principal town mayor and the auxiliary mayors from the surrounding villages go to a training session and receive plastic bags of 50 pouches. The principal mayor has a form to record the number of packets given out by all, updated at their regular meeting, so that supplies can be replenished. While they do not advise mothers concerning medical issues, mothers are told by radio that they can get packets at this source in addition to the health post, or guardiane's and midwife's homes. The mayors are trained in the basic ORS messages and methodology, however, to prevent misunderstanding and to be a potential source of reinforcement for the mothers. The ministry is watching this experiment closely, and if it works well, may consider further use of the mayors.

The following article appeared in The Tribune at the start of my visit, indicating a fairly high level of local interest in the project's use of the mayors. It is one of about a dozen articles on the project in The Tribune since the project began.

La Tribuna

Lunes 13 de julio de 1981

SE SUMAN A LOS PROGRAMAS DE SALUD LOS ALCALDES AUXILIARES

En su afán de popularizar el método de rehidratación oral, el Ministerio de Salud Pública ha capacitado en esta técnica a 320 alcaldes auxiliares de Francisco Morazán y El Paraiso, durante los meses de mayo y junio.

Este entrenamiento es parte de la primera etapa de una campaña experimental para combatir la deshidratación en la Región Sanitaria Número Uno, que comprende dichos departamentos.

La nueva técnica fue también enseñada a 180 personas, que incluyen a doctores en servicio social, enfermeras profesionales y auxiliares, personal de Salud Pública y Asistencia Social que opera en la Región y 60 trabajadores de salud del Cuerpo de Paz.

Durante la primera etapa de la campaña, que cubre el inicio de los meses de mayor incidencia de la diarrea y enfermedades de tipo gastrointestinal, se produjeron y distribuyeron 36 mil afiches con diferentes mensajes para combatir la deshidratación.

Asimismo se imprimieron mil bañerines que sirven para

identificar las casas de los campesinos miembros de la comunidad donde se encuentra disponible el LITROSOL, un preparado que disuelto en agua hervida ayuda a combatir la deshidratación.

Hasta el momento han sido preparados en 35 municipios 109 mil 600 sobres de esta preparación y 222 personas laboran en su distribución explicando a las madres su empleo.

En los próximos meses y una vez que sea posible medir el impacto de esta campaña, el LITROSOL estará a la disposición de los pacientes en los hospitales regionales del país y se procederá a implementar la campaña a nivel nacional.

Se estima que una vez que haya conciencia entre la población sobre este problema y la manera más efectiva de combatirlo, la mortalidad infantil producida por la pérdida de líquidos que acompaña a la diarrea disminuirá notablemente.

The distribution system is so far working. But it has been the source of much stress for the project and will be a major concern as Honduras uses ORS more extensively. Establishing and maintaining the system has cost the project time and energy that was not originally envisioned. Original plans had assumed the existence of a distribution system. Thus the project work pace has been at times frenetic and some other activities have suffered. For example, production of the "Mother of the Week" radio program and the timing of the photonovel production have been delayed. Yet, the amazing thing is that the domino-stule training and distribution seems to be working. Attachment 1 shows the number and type of persons trained and number of packets distributed from May 1 to July 15 -- 126,300 packets distributed and 317 mayors, guardianes, and midwives trained in Health Region I.

While the long-term institutionalization of an effective ORS distribution system remains an issue, MOH, project, and mission personnel point to two factors that may help: the upcoming AID health sector project focuses in a major way on the medical supply infrastructure; there is continued discussion of the introduction of the private sector for the widespread sale of ORS.

Evaluation of the Intervention

The principal investigator of the Stanford University evaluation contract, Dr. Dennis Foote, and the evaluation field director for The Gambia site, Dr. Peter Spain, were in Honduras during my visit. Dr. Karl Kendall, the evaluation field director for the Honduras site, I and Drs. Foote and Spain visited the project's "contaminated" village near Yuscaran where interviewer training and instrument pretesting had taken place; met two of the interviewers; reviewed several new interview instruments being developed; and visited the USAID computer facility where data entry (on-line), cleaning, and compilation is taking place.

The evaluation operation has several features worth mentioning:

- Three interviewers do continuous data collection while living centrally to their village sites (6 sites each) and are familiar figures to the villagers;
- The interviewers collect data for three weeks of each month and devote part of the fourth week in Trucigalpa to reviewing the completed interviews and retraining;
- The sites are purposively selected to enable better generalization to LDC conditions worldwide rather than randomly selected to enable generalization to Health Region I;
- The dwellings at the sites were enumerated and the sample of 754 families randomly selected;

- Only 7 families refused the initial invitation to participate and 1 additional family has to date requested to discontinue participation, although a few other families have dropped out due to out-migration;
- The USAID Mission computer center and excellent programming assistance at the mission have enabled a remarkably efficient data processing operation to evolve: the data is entered on-line for eight hours each night direct from the precoded interview schedules; error is virtually eliminated by routines causing the rejection of entries outside of a specific range for each variable; each interview entered has the family address so that in-depth review of family data over time is possible; when the mission SPSS package is installed, some analysis as well as data cleaning and organization can be done in Honduras.

Progress to date appears to be excellent; the operation is running well; initial baseline data analysis should be available within a month.

Permanency of the three MOH positions

Discussions within the Ministry concerning the permanency of three key positions related to PROCUMSI and, in turn, to the institutionalization of the project methodology were usefully linked both to the PAHO-AID workshop planning and to the momentum achieved by the project to date. Important themes in the discussion were that:

- institutionalization meant not only application to a national diarrhea control program such as was already envisioned by the Ministry and would be reinforced by the PAHO-AID workshop, but also application to other subject areas as well;
- activities under the upcoming AID health sector project required equivalent tasks to be performed by the Health Education Division as are being performed under the diarrhea program;
- PROCUMSI has begun to attract international attention because it operates with an unusual combination of local ORS production and social communication methodology and that Honduras can be a leader in this area; and
- it makes sense to take advantage of the effort and progress already made rather than to let the lessons learned fade with the end of the AID project.

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Discussions were held during the week with the following key individuals:

- . Dr. John Massey, USAID/Tegucigalpa;
- . Dr. Antony Fernandez, Ministry of Health;
- . Dr. Juan de Dios Paredes, Deputy Director General MOH;
- . Dr. Alberto Guzman, Director of the Division of Epidemiology MOH in whose division diarrhea control is located and who, as Director General, had signed the project letter of agreement;
- . Dr. Alvaro Rueda, PAHO advisor to the Division of Epidemiology;
- . Dr. Arturo Zelaya, Director of the Division of Health Education MOH and Mr. Luis Sarmiento, his associate;
- . Dr. Elio Sierra, Director of the Division of Planning MOH, who is the major interface with the Ministry of Planning, and his assistant Mr. Carlos Hernandez.

These discussions seemed to be successful. Before I left, the Deputy Director General had requested preparation of the job description and justification for the Ministry of Planning from Dr. Sierra, who in turn left it to Mr. Hernandez and the project field director Dr. Reynaldo Pareya to draft. Drs. Massey, Guzman, and Zelaya felt that if these plans were blocked, there were positions scheduled under the upcoming AID project for the Health Education Division that were similar in nature to those under the project and that a compromise positioning the slots back to back might evolve. It should be noted that the mission and the ministry were undertaking similar discussion about the USAID health project positions in general. In this broader context it seems almost certain that some compromise insuring the continuation of the key health education positions will be achieved.

Finalization of Plans for the PAHO-AID Workshop

By the time the visit was over, the Minister, the Deputy Director General and Dr. Guzman had approved the workshop, and Dr. Guzman, Dr. Pablo Isaza (the PAHO country representative), Dr. Massey, Dr. Rueda and I fixed the date as the last week in October and the agenda to be the combination of W.H.O. diarrhea control training modules and country presentations noted above. Dr. Massey will explore which hotel will offer the best room/board/meeting room package. We will jointly finalize detailed plans over the upcoming weeks. The workshop is titled, "PAHO-AID Workshop for the Development of National Diarrhea Control Programs: and will take place October 25-November 1, 1981.

All involved with the development of the workshop felt that it would strengthen the institutionalization process of the PROCUMSI methodology since during and after the workshop specific plans for the Honduran national diarrhea control program would be further developed.

Problems Remaining to be Solved

While excellent progress was being made under both the implementation and evaluation contracts, several problems require resolution:

- On the intervention side, a Honduran counterpart to manage MOH interaction with radio production is still to be found. I discussed slightly changing the scope of work for this position to de-emphasize production skills as such and to emphasize the message development and systems monitoring role.
- With the other two MOH counterpart positions, there were some salary and job satisfaction problems, largely surrounding the permanency of the MOH positions. These problems seem to be being managed well by Reynaldo Pareya the Academy for Educational Development field director.
- The focus on distribution of ORS has been damaging. But as noted above, the distribution and training system is in place and functioning well. Hopefully production delays will be recovered.
- Largely due to sheer overwork of both contractors' personnel, communication between the two field staffs has had rocky periods. But both staffs are working at this and recently held a six-hour joint session to iron out the most recent accumulation of concerns. The volume of work being done by the contractors' staff and their struggle to work together are admirable.

Throughout my visit the USAID Mission, contractor field staff and MOH personnel provided excellent assistance. I believe that the Agency can be proud of what is being produced, and that the project is well underway to becoming a serious contribution to the people of Honduras. I wish to extend my appreciation to the staff of both Stanford University and the Academy for Educational Development involved with the project.

Attachments:
a/s

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USAID/Banjul:
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PAHO: J. Rust
M. McQuestion

AED: S. Moseley
W. Smith
(pass to field staff)

Stanford University:
L. Nelson
D. Foote
(pass to field staff)

Personal Entrenado en la Utilización Total
 en la Región Sanitaria N° 1.
 Honduras. C. A.

Región	Personal	N° de Personas Entrenadas	Fecha	N° de Salidas \$-Dólares
FO Managán y El Paraíso	Guardianes de Supermercado	73	2, 3, 9 y 10 Abril	29 200
FO Managán y El Paraíso	Alcaldes Municipales	42	3 y 5 Junio	
El Zangal (Yuscarán)	Alcaldes Municipales	4	4 Junio	400
El Zangal (Yuscarán)	Representante de Salud	1	4 Junio	100
Oropetí	Guardianes	13	27 Mayo	1300
El Jacinto	Guardianes	10	18-22 Mayo	1000
El Paraíso	Carteras Emp. Adiest.	11	17 Junio	1100
El Paraíso	Guardianes	2	17 Junio	200
San Matías	Guardianes	3	18 Junio	300
San Matías	Alcaldes Municipales	2	18 Junio	200
San Matías	Representante de Salud	2	18 Junio	200
San Matías	Carteras Emp. Adiest.	9	18 Junio	900
Alauca	Guardianes	11	19 Junio	1100
Ambojuera	Carteras Emp. Adiest.	8	19 Junio	800
Representante	Alcaldes Municipales	33	18-19 Junio	10 500

H-15

2

Personal Gubernado para Hidratiación Oral
en la Región Sanitaria N° 1

Lugar	Personal	Nº de Personas Enfermas	Fecha	Nº de Colmos Entregados
Salinasgrandes	Alcaldes Auxiliares	19	23 Junio	8,000
Acobambas	Guardianes	15	26 Junio	1,500
El Chancay	Alcaldes Auxiliares	13	27 Junio	5,500
La Huelga del Sur	Guardianes	6	29 Junio	800
San Juan	Guardianes	14	30 Junio	1,400
Oyayson	Alcaldes Auxiliares	7	1 Julio	2,500
San Mateo	Alcaldes Auxiliares	19	15 Julio	3,200
				70,000

98

No de Saltes de ...
en las Alcaldías Municipales P. 1

Comunidad.	No de Saltes Entregados
San Antonio de Oriente	2800
Patumbala	2200
Maraita	200
Yauyape	800
Orpali	2300
Yuscandín	4100
Patricillos	1800
Jacaleapa	2200
Santa Ana	4000
San Lucas	3200
San Antonio de Flores	1400
Huamaca	5400
Orca	2800
San Ignacio	3600
Cecina	3000
Palanga	3400
San Juan de Flores	700
Villa de San Fco	200
Aguera Armenia	200
Fringuot	3900
Barlo Ancho	1800
La Venta	3200
San Pedro	2300
San Buenaventura	1600

July 24, 1991

MEMORANDUM

TO: S&T/N, Audrey Wight
Tina Sanghvi
RAC/DR, Elena Brineman
L. Morse

FROM: ST/ED, Anthony Meyer *ajm*

SUBJECT: Discussions with J. Massey, M. Birnbaum, and L. Russo (CARE)
during TDY Honduras, July 12-18, 1991.

(1) John Massey felt that Tom Cooke's and Michelle Siegel's visit helped work out misunderstanding with SUPLAN regarding the CARE, AID-funded project to produce the nonformal education (NFE) manual and audio-visual materials and to train promoters in the NFE style in nutrition education. They did a budget and letter of agreement. John says that it could be a neat project, but that some ministry, not SUPLAN will have to take the products and run with it. To this end, a series of meetings will be held to orient the nutrition council to the project.

I visited Linda Russo, new CARE representative in charge of feeding and health activities, with Betty Booth of the Mass Media and Health Practices project to further discuss the project. It turns out that Betty and Hector (the Mass Media project graphics and graphic pretesting man) had worked quite a bit in the early development of the manual, especially in the methodology of conducting focus groups. Linda had specific problems:

- Ann Jimersen's INCS money will run out, she feels, before any training really gets underway;
- She is left with a manual as yet untranslated into appropriate Spanish with no money or person for the translation;
- SUPLAN has made it clear that they are simply not interested in implementation -- that's not their role, they say. Some ministry or division in a ministry has to make it their own, and she feels that this is unlikely. She feels that this was a serious oversight not to be working from square one with an entity committed to institutionalization of the product. She is hopeful that the upcoming meetings with some 35 various ministry people may produce results.

Betty suggested that Linda use the promoters, who are usually savvy, local leaders, to translate the manual and, as Linda wanted, add local vocabulary, references, and stories. This could be done, in part; through a focus group methodology. Linda said that this was the best idea she's heard in months! Suggestions were also made about various divisions in ministries which might sponsor the training activities.

(2) Marcie Birnbaum, USAID/Tegucigalpa education officer, working with Ambrosio Ortega, described the MOE primary school educational reform curriculum materials that are presently being pretested for use in February after 3 years of development. The curriculum is divided into four functions: math, community-social relations, national reality and man, nature, work. Looking through the first grade draft materials in national reality and man, nature, work, I was impressed by the quantity of health and nutrition segments in each. It included foods associated with growth and energy, teeth care, taking care of food, hand washing, contamination via vectors, how to stay clean, etc. I didn't have time to make a complete inventory or to judge the adequacy of what was there, but the effort made by the MOE was clearly responsible.

(3) Vicky Arboleta arrived under INCS in response to the SUPLAN MOE representative's request to discuss the secondary school curriculum. John Massey noted that initial reaction to her was very positive and that it seemed that she would be looking at the primary school curriculum as well. John is appreciative of the INCS and breastfeeding projects, and he will use them as much as he can while attempting to integrate nutrition concerns in mission activities.

(4) Reynaldo Grasso was out of country, and the Nutrition Congress is delayed. John Massey noted that the Nutrition Association wanted him for three days under INCS in October and that he will cable for a firm date.

ST/ED/A.Meyer:jck:7/24/81

APPENDIX I

NEWSLETTER REFERENCES TO MM&HP

THE

FACTS & IDEAS

Vol. 5, No. 8

September, 1981

Improving Primary Health Care: Urban Possibilities

In a previous TUE issue concerned with health (1:78), we cited an article by Samir Basta of the World Bank to the effect that slum dwellers, despite their greater income and closer proximity to health facilities, sometimes have greater problems maintaining health than their rural counterparts. For the urban poor there is a general problem of accessibility to health services because many of the existing services are geared to the upper income residents. Moreover, inasmuch as population densities are so much greater in urban than in rural areas, the impact of communicable diseases is also likely to be more severe. Among the factors responsible for high urban disease and mortality rates are: the unhygienic storing of water, the decline in breast feeding, the need to buy food, the prevalence of stagnant water where malarial mosquitoes and other insects can breed, the abuse of narcotics and alcohol, and the complications inherent in being suddenly introduced to a cash economy. Furthermore, the major international aid organizations involved with health stress rural programs in response to a proportional lack of services there, leaving the concerns of the urban poor largely to smaller institutions.

Until the early 1970s, much of the health expenditure of developing countries was directed towards "curative medicine": building of hospitals, the training of physicians and nurses, and the purchase of sophisticated medicine and equipment. Since then, a new model of care has come to be emphasized, based on the "primary health care" (PHC) concept largely developed by the World Health Organization (WHO). As presented by Fredrick Golladay and Bernhard Liese in the 1980 World Bank Staff Working Paper No. 412 (available from the World Bank, 1818 H St., N.W., Washington, D.C. 20433), PHC includes the following elements: "(1) community participation, (2) universal coverage and accessibility, (3) appropriate health technology, and (4) care by community health workers or by traditional health workers." Examples of PHC activities are: immunization against common infectious diseases, prenatal care, qualified birth attendance, care of infants, treatment of injuries, family planning

programs, food fortification, better storage and distribution of foods, development of safe water supplies and sanitation, and health education. A successful PHC program might be expected to increase life expectancy by about 11 years and productive life for those in the developing world who survive to age 15 by 4 to 9 years.

Because of the importance of PHC in improving the standard of living of low-income urban settlements, this issue will be devoted to effective approaches. Particular attention will be paid to certain efforts to implement large-scale programs, including an analysis of unsuccessful as well as successful aspects. Before presenting these case studies, attention should be paid to the following requirements considered essential for PHC programs:

- *Surveillance*

In a paper presented in 1979 to the World Bank's Economic Development Institute, Dr. Stanley I. Music of the U.S. Center for Disease Control in Atlanta, Georgia emphasized the necessity of determining a community's most important health problems before beginning a public health program. For example, much money could have been saved by the U.S. Army Corps of Engineers in its campaign against malaria in U.S. southern states prior to World War II if it had recognized that reports of widespread malaria in this region were mistaken. With appropriate surveillance, it is possible to select meaningful priorities in medical research, preventive medicine, and health care delivery and to evaluate the effectiveness of the money spent.



Figure 1: Project Chodak Dakar
Environment & Development in Africa (ENDA)

EMDA Photo

- *Reliance on Paramedical Personnel*

Successful PHC depends on the integration of various levels of health care, beginning with voluntary community health care workers under the supervision of qualified nurses, pharmacists, and paraprofessionals. Primary health centers should be supervised by physicians and linked to a referral hospital, but they should be managed by paraprofessionals.

The importance of using paramedical personnel has been stressed in a 1979 report by Davidson R. Gwatkin, Janet R. Wilcox, and Joe D. Wray, *CAN INTERVENTIONS MAKE A DIFFERENCE?*, available from the Overseas Development Council, 1717 Massachusetts Avenue, N.W., Washington, D.C. 20036. While all of the ten largely rural health projects studied were planned and led by competent physicians, "the more obviously successful projects were notable for their efforts to reduce reliance on the services normally provided by highly trained physicians."

An urban project using community health workers has been successfully developed by ENDA, a Senegal based international non-governmental organization, in Grand-Yoff, an impoverished suburb of Dakar visited several months ago by TUE's editor.* In this community, selected housewives are provided with first aid medication and supplies; and they meet weekly for instruction, weighing of babies, and discussion of problems. (See figure 1.) Under the supervision of paraprofessionals, these housewives learn not only to administer first aid but also to recognize conditions requiring the attention of a physician.

In an article prepared for UNICEF NEWS (100/1979/2), Professors Carl E. Taylor, Dennis G. Carlson, and Archie S. Golden of the Johns Hopkins University School of Hygiene and Public Health point out that even illiterate PHC workers can contribute greatly to rapid improvement in health, family planning, and nutrition services to the world's villages and slums. For example, according to their research in Narangwal, Punjab, India, auxiliary nurse midwives were able to provide over 90% of the services that achieved a 30 to 50% decline in infant and child mortality in a period of a few years. This achievement, however, required innovative educational methods as well as a new orientation on the part of physicians, who had to learn to cooperate with health workers rather than imposing their status as medical authorities.

Another finding of this study was the usefulness of alternating theoretical and practical periods of training. This not only enriched the learning process but also enabled the training course to be reduced from six months to six weeks. The training emphasized repetition of routine tasks with simple principles to be memorized. After each training module was completed, students were evaluated on their task performance. This approach is most successful if it is followed up with continuing

*The development of this project is described in a 1979 ENDA publication (No. 47), P.O. Box 3370, Dakar, Senegal. More recent information is available from the Chodak co-directors O. Laurent and E. S. Ndione, B.P. 8176, Dakar-Yoff, Senegal.

education and forms of evaluation which are considered supportive rather than punitive.

In setting up training programs for paramedical personnel, the following inexpensive paperback books can be recommended: *THE PRIMARY HEALTH WORKER*, 1974 (WHO, 1211 Geneva 27, Switzerland); David Warner's *WHERE THERE IS NO DOCTOR*, 1977 (The Hesperian Foundation, P.O. Box 1692, Palo Alto, California 94302); and J. Jarett Clinton's 1979 handbook, *HEALTH, POPULATION AND NUTRITION SYSTEMS IN LDCs* (University Research Corp., 5530 Wisconsin Ave., Washington, D.C. 20015). The first two books mentioned, which are available in several languages, are concerned with the illnesses and injuries capable of being treated by a PHC worker. Clinton's handbook is primarily addressed to program administrators to facilitate their understanding of the interrelationship of health, population, and nutrition components and their ability to evaluate various approaches.

- *Community Cooperation*

An effective health care system must enjoy the full confidence of the community. For this reason, health workers should be chosen by and reside in the community served. Because certain health programs may be unpopular or misunderstood, attention must be paid to public education and gaining the support of leaders. Failure to do so has undermined many public health programs. In India, for example, a campaign to popularize vasectomies had to be abandoned because it was overzealously introduced. In a Nigerian city, concern about witchcraft was found to be preventing the distribution of medications to school children.

To ensure that new health programs are responsive to locally perceived needs, priority should be placed on supporting local initiatives. One option is to offer grants-in-aid to groups that are willing to construct facilities and carry out programs. Another option is to pay the costs of clinics and equipment for activities for which communities are willing to meet operating costs. The Republic of Korea has experimented with these options, subsidizing competent community organizations willing to undertake services that meet broad requirements.

Where there is not a strong tradition of community participation, it may be necessary to slowly build support through a series of public meetings, mass communication programs, and through existing leadership to influence public opinion. Dr. William A. Smith of the Academy for Educational Development, 1414 22nd St., N.W., Washington, D.C. 20037, is currently developing mass media for this purpose in Honduras and The Gambia, with USAID financial assistance. Those interested can write to him for his report on combining radio, simple graphic materials, and health worker instruction to spread information on the prevention and treatment of acute infant diarrhea.

- *Cost Recovery*

Unless a minimal quality of service is maintained, health care may be ineffective or even harmful. However, carefully designed PHC components can

NCIH

**NATIONAL COUNCIL FOR
INTERNATIONAL HEALTH**

DIRECTORY

**U.S. BASED AGENCIES INVOLVED
IN INTERNATIONAL HEALTH ASSISTANCE**

JUNE 1980

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ORGANIZATIONAL PROFILES

ACADEMY FOR EDUCATIONAL DEVELOPMENT (AED)

Geographical Location of ORT Activities:	Anglophone Africa: Gambia Central America: Honduras
Duration of ORT Involvement:	8 years
Classification of ORT Activities:	Health Education, Primary Health Care at Community Level
Operational Research:	Has been incorporated into ORT activities
Training Groups:	Professional Clinical Health Personnel, Health Auxiliary Workers, Healers, Traditional Midwives, Mothers, Family Members Other Than Mothers, Teachers, School Monitors, Extension Leaders
Materials Developed to Support ORT Activities:	Training Materials for Health Staff, Health Education Materials for the Community, Mass Media Materials: Written in Spanish; Developed by Field-Based Personnel; Used in Honduras; Available at AED
Methods/Mixtures Used:	Oral Rehydration Salts Packets, Packets Produced Locally in Honduras
Evaluation:	Has been performed and is available at AED
Project Profile(s):	The "Mass Media and Health Practices Project" in Honduras is developing a public education campaign for rural areas on prevention and treatment of infant diarrhea. The project disseminates information by radio, print, and training materials in Spanish.