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MASS MEDIA & HEALTH PRACTICES

PROJECT IMPLEMENTATION

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Academy for Educational Development, Inc.

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SEMIANNUAL REPORT NO. 8

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April 1, 1982 - September 30, 1982

SECTION I

BACKGROUND

On September 30, 1978, the Academy for Educational Development, Inc., 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.

2) To contribute significantly toward the prevention and treatment of acute infant diarrhea in isolated rural areas of both countries.

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

In both countries, Project personnel assist national health personnel in developing a public education campaign that 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 for Educational Development'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 Project.

In July of 1982, the Health Office of the AID Mission in Honduras amended the MM&HP contract to provide assistance to the Ministry of Health's national program of immunization and diarrheal and malaria control. This addition provides 24 person-months of technical assistance to a nationwide health education program aimed at strengthening the existing network of primary health care workers throughout the country. Using many of the same techniques developed by the original diarrhea program financed under this contract, the new program will further institutionalize the application of communication planning to the delivery of other critical health information. This activity is referred to here as the Primary Health Care Component of the MM&HP Project.

SECTION II

ACTIVITIES PROJECTED FOR PERIOD FROM APRIL 1 to SEPTEMBER 30, 1982

A. HONDURAS

Follow Implementation Plan as outlined in Appendix A.

B. THE GAMBIA

Follow Implementation Plan as outlined in Appendix B.

C. WATER AND SANITATION COMPONENT

1. Print and distribute 8,000 promotional posters.
2. Begin broadcasting of the health education soap opera in three radio stations.
3. Field-test two promotional posters.
4. Field-test flipcharts for the construction of latrines and community promotion.
5. Produce and field-test 60 health education soap operas.
6. Organize three health education training workshops for Engineers and Promoters.
7. Produce and field-test two "Juanita y la Gotita" videotapes.
8. Field-test the comic book "Juanita y la Gotita."
9. Produce instructional pamphlets for flipcharts on community promotion and latrine construction.
10. Produce flipchart didactic guides for community promotion and latrine construction.
11. Program field application for the community promotion flipcharts.
12. Design a flipchart on water-related diseases.

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INTRODUCTION

This document is one of a series of reports prepared by the Academy for Educational Development, Inc., under its Mass Media and Health Practices Project contract with the the United States Agency for International Development.

The full series includes:

Document #1	Scope of Work-Technical Proposal
Document #2	Contract Scope of Work
Document #3	Semiannual Report No. 1
Document #4	Project Agreement with Honduras
Document #5	Semiannual Report No. 2
Document #6	Honduras Target Regional Selection Process
Document #7	Semiannual Report No. 3
Document #8	Principal Health Considerations
Document #9	Developmental Investigation Protocol
Document #10	Institutional Review Board
Document #11	Honduras Regional Background Paper
Document #12	Description of Field Investigation Activity: Honduras
Document #13	Communication and Development
Document #14	Results of Honduras Field Investigation
Document #15	Implementation Plan: Honduras
Document #16	Semiannual Report No. 4
Document #17	Semiannual Report No. 5
Document #18	Semiannual Report No. 6
Document #19	Implementation Plan: The Gambia
Document #20	Second Year Implementation Plan: Honduras
Document #21	Semiannual Report No. 7
Field Note #1	Packets: Do Visual Instructions Make a Difference?
Field Note #2	Packets: More Questions and Few New Answers
Field Note #3	The ORT Poster: Something Special for the Professionals
Field Note #4	Selecting Campaign Messages
Field Note #5	Building a Network of Effective Providers

SECTION III

ACTIVITIES UNDERTAKEN

A. HONDURAS: Diarrhea Disease Campaign

Two major events occurred in this six months which greatly affected the role of the Project and the Project staff. First, the new Ministry of Health officially designated the Control of Diarrhea and an expanded vaccination program as Ministry priorities. As a result of that decision, a Diarrhea Disease Control Program (DDC Program), with two full-time staff under the direction of the Division of Epidemiology, has been created to implement a DDC program on a national level. The activities of the Project in Region I have been gradually, but systematically, absorbed into the DDC Program as one of the integrated normal activities of the Region and of the Ministry. In this way, the Project's role has changed from implementation to providing technical and logistical advice to DDC Program staff so they can eventually implement the national program using the educational materials and technical methodology that have developed during the two previous years of the Project. At the same time, the Project has continued to design, pretest, and produce new materials which can be of future use to the DDC Program.

The following description of the six-month activities indicates that much of the work has been allocated not only in terms of Region I, but also in terms of the new and evolving role of the Project within the national program.

1. Formative Evaluation

The Project implemented a formative evaluation at the end of February in 30 sites with 90 persons. The objectives of the evaluation were to determine the attitudes and behaviors that prevented rural mothers from correctly treating infant diarrhea, and to begin to explore knowledge, attitudes, and practices of rural mothers concerning breastfeeding, a prevention behavior which will be emphasized in the last phase of the Project. The specific results will be discussed in a subsequent section of the report, showing how the results influenced various design decisions. A full report is in Appendix C.

2. Training

a. National Level Regional Ministry of Health Personnel

The first step of the DDC Program plan was to train the Ministry of Health personnel on the Regional level. This involved two training courses in April and May for the extension of coverage to the health facilities in all of the Regions. The courses were given in collaboration with the various divisions involved in the control of diarrhea, namely: Sanitation, Mother-Child Health, Education, and Epidemiology. The Regional personnel who attended the courses included the Regional Director, Epidemiologist, Nurse, Statistician, Pediatrician, Director of the Regional Hospital, Promotor Coordinator, and the Coordinator of Continuing Education.

Representing the Division of Education, the Project personnel presented a basic orientation on the educational materials—graphic and radio—that would be used in the DDC Program. The staff also shared their conclusions on the formative evaluations, especially concerning training of health workers and the various factors that should be considered in the distribution of packets and educational materials. Handouts explaining points to be emphasized in training at the various levels—doctors, Auxiliary Nurses, and community health workers—were distributed and discussed.

b. Doctors

The Ministry of Health, through the Division of Human Resources, presented a basic orientation to 150 doctors entering their year of social service in rural areas of Honduras. During this training, the Project provided orientation on oral rehydration therapy, focusing on treatment in rural clinics. The orientation also emphasized education to rural mothers on home use of LITROSOL.

c. Training Centers for Auxiliary Nurses

Ultimately, Ministry policies for the control of diarrheal diseases will be integrated into the curriculum of all health professions. In the meantime, however, the DDC Program and the Coordinator of the Mother-Child Health module at the Auxiliary Nurse Training Centers requested that the Project trainer, Miriam Martinez, offer ORT orientation to graduating students. The training followed the basic orientation presented last year to Regional Auxiliary Nurses incorporating and emphasizing those problem areas identified in the formative evaluations.

d. Metropolitan Region

One of the first Regions to implement the DDC Program was the Metropolitan Region. Collaboration of the Project was requested, and the trainer oriented the hospital level staff and helped design and implement the training of the community level health workers.

e. Regional Training

Auxiliary Nurses: This training consisted of a one-day "reorientation" of the Auxiliary Nurses who were trained through the Project the previous year. The curriculum design of this retraining was based upon the formative evaluations which indicated various problem areas that needed to be emphasized, namely: the signs of dehydration, use of LITROSOL with other medicines, and use of the educational materials, especially the instructional packet. The training was designed to teach the Auxiliary Nurses to reorient the community health workers trained in ORT the previous year, emphasizing ORT activities during the rainy season. The Auxiliary Nurses were to distribute 100 packets of LITROSOL at each community health workers meeting while explaining the need to use LITROSOL during the rainy season, as well as describing the signs of dehydration using the dehydration poster. The Nurses also were asked to re-emphasize to the community health workers the problem areas previously identified in the formative evaluations.

Community Health Workers: Most of the training of community health workers this year, as last year, was implemented by the Area Nurses of the Region. The Project participated with logistical support providing packets in plastic bags, posters of the signs of dehydration and the use of LITROSOL, LITROSOL flags, and registration forms.

This year, however, the Region and the Ministry decided to discontinue using the village mayors (alcaldes) as distribution points because it was felt that the Ministry would be unable to continue to support them as distributors after the Project had ended. To alleviate the need for community health workers in Area 4--the poorest area and area of least radio coverage--the Project requested through the Regional staff the collaboration of Plan de Honduras health promoters to help speed the process of

identifying and training community health workers in that area. The Project trained the community personnel identified in this matter. In total, the number of personnel directly trained by the Project was as follows:

• Orientation as part of the DDC Program	
Regional Staff	70
Doctors in Social Service	150
• Training in ORT	
Doctors and Nurses	40
Auxiliary Nurses	152
• Retraining	
Auxiliary Nurses	83
• Training, Community Level	
Guardians	14
• Training performed by the Regional Staff with Project support	
Guardians	93

3. Radio

The selection of messages, radio stations, the tone of the campaign, and the use of the radio personalities was based on the formative evaluations of February 1981 and February 1982.

Dr. Salustiano continued as the source of technical information about ORT. The evaluations confirmed that Dr. Salustiano has become a well-known and credible source of health information. He continues to provide the serious tone that promotes LITROSOL as the most modern and scientific treatment of diarrhea. The Project continued using the jingle "LITROSOL is the salvation from dehydration" at the beginning of each LITROSOL spot. This jingle reinforces the technical messages of the spots, as well as giving identity and continuity to the campaign throughout the two years of broadcast. The dehydration song also is being used, but the narration that follows the song has been changed to promote different key messages of this phase.

a. Selection of Radio Stations

The February formative evaluation indicated that the large majority of mothers remembered hearing the LITROSOL spots on HRN; consequently, it was decided that the national radio station would be used to air a large proportion of the campaign. In order to use limited resources most efficiently, Radio America was used only during the rainy season months of May through July. Radio Honduras, the government radio station, collaborated for the first time with the Project, programming spots during peak rural listening times.

On the Regional level, Radio Sonora was dropped because the formative evaluation showed no mention of this station by the mothers. Radio Oriental and Latina in Danli, and Radio Paraiso in El Paraiso continued to carry the campaign on the Regional level.

b. Formats

This year, the Project experimented with various formats and interinstitutional contacts to take advantage not only of paid commercial time but also of free collaboration with other communications media. The formats included:

- Radio Spots.
- La Voz de la Salud - a weekly 15-minute program.
- Social Service Messages.
- Collaboraton with PANI.
- Sportscasts.
- Game show, "Concurso de los Giganges."

- **Radio Spots**

The messages to be taught through radio spots were selected based on the formative evaluations. The objectives of these spots were to correct the conceptual errors of mothers that impede the continued and correct use of LITROSOL, and to teach the signs of dehydration through the radio.

The messages chosen included:

1) LITROSOL can be used while administering other medicines. (The formative evaluation showed that many mothers thought they could not use LITROSOL if they were giving other medicines and consequently would stop giving LITROSOL while administering or using other medicine.)

2) LISTROSOL should be administered during the entire diarrhea episode. (Many mothers would only use LITROSOL one or two days and if the diarrhea continued, they would use another treatment.)

3) LITROSOL should be used for all kinds of diarrhea. (Many mothers believed that LITROSOL should be used only for "light" cases of diarrhea and, therefore, used other treatments for heavier or more serious cases.)

4) The entire packet of LITROSOL should be mixed with one liter of water. (Many rural mothers attempt to conserve their limited resources and mix only part of the packet in part of a liter of water. This creates a risk of hypoglycemia.)

5) Three eight-ounce soft drink bottles equal one liter. (Although this spot was presented last year, the formative evaluation in February showed that many mothers were not aware of this critical piece of information. The spot was therefore rebroadcast this year.)

6) Children with signs of dehydration need medical treatment immediately.

The Project experimented with phased programming--which will be evaluated in September--to try to measure how many daily repetitions are required and how long a spot must run in order to have an impact. The spots teaching the two most critical messages--"Use LITROSOL during the entire diarrhea episode" and "Use LITROSOL for all kinds of diarrhea cases"--were aired the entire five months of the phase. The spot from last year--"Three 8-ounce soft drink bottles make one liter"--ran only the first month of the phase. The two spots that teach the signs of dehydration ran four months, two months each. The other two spots were rotated so that "Use LITROSOL with other medicines" ran three months--May, July, and September--and "Mix all of the packet in a liter of water" ran two months--June and August.

One major problem in the spot programming during this phase was caused by the World Cup Soccer Games in Spain in which Honduras participated. All of the games were broadcast, thereby interrupting normal scheduling. As a result, spots were cancelled on Radio America during this period and special scheduling and extra monitoring was implemented with HRN.

- La Voz de la Salud

This weekly 15-minute program began May 1, 1982. It was broadcast nationally by HRN and Radio Honduras and Regionally on Radio Oriental in Danli and Radio Paraiso in El Paraiso.

The objectives of the program are to:

1) Stimulate and support community health workers, Guardians, and Parteras in the distribution of LITROSOL and in their community MOH work, particularly the distribution of LITROSOL. Formative evaluations indicated that one of the principle complaints and problems of these health workers was that they felt that the Ministry was not supporting them and that frequently the community did not take them seriously. The program was consequently designed in response.

2) Reinforce the brief training in treatment and prevention of infant diarrhea, especially the most difficult or most frequently forgotten points as indicated by the evaluations.

The personalities in the program are Dr. Salustiano; Don Martin, a young active Guardian; and Dona Chela, a Partera who is presented as being enthusiastic, but more traditional than Don Martin. The role of Don Martin and Dona Chela is to reinforce Dr. Salustiano, translating his technically articulated message into terms and vocabulary of rural people. Audience participation is included in most of the programs through tape-recorded interviews with Guardians, Parteras, other Ministry personnel, and the rural people.

- Social Service Spots

Many of the radio stations offer the service of free, short (15-second) announcements to Ministries as well as individuals. The Project took advantage of this free service during this phase with various public service announcements, particularly the announcement of the monthly community health workers meetings. Guardians and Parteras were urged to attend the monthly meeting in May because they were to receive extra training in the treatment of infant diarrhea and more packets of LITROSOL.

- **Collaboration with PANI**

Because LITROSOL is produced by PANI, the Project requested collaboration from their public relations department to promote LITROSOL through their various promotional channels. This was not possible before because LITROSOL was distributed in only one Region of the country. With the expansion of the program to a national level, however, the DDC staff felt that this would be an excellent way to promote LITROSOL. PANI collaborated in three ways:

--Programming radio spots on the various radio stations that work with PANI.

--Discussing LITROSOL on the various radio and television programs on which the public relations staff appears. A guide outlining basic ORT treatment was given to and discussed with these personnel.

--The four-foot LITROSOL heart that was used during the promotion at the Corn Festival last year was established permanently on the set of the weekly PANI television program. This program, which announces the results of the PANI lottery, is simulcast on national radio and has one of the largest audiences of any program in the country.

- Sports Program

Radio El Paraiso requested collaboration from the Project to promote LITROSOL during the weekly soccer matches because these matches are very popular in the rural areas and are generally held between the villages where LITROSOL is distributed. LITROSOL became one of the sponsors of the live broadcasts from the stadiums and slogans used by the sports announcers included:

--"Make a goal against dehydration by giving LITROSOL when your child has diarrhea."

--"The unprepared team always loses the game. The team with LITROSOL always wins against dehydration."

--"If you want to win against dehydration, make a goal with LITROSOL."

—"Don't be on the losing team! Be on the champion team! Because LITROSOL always wins against dehydration."

—"The children's team wins again! Of course they'll win if they always take LITROSOL when they have diarrhea."
Project and other Ministry of Health staff also wore teesnirts with similar slogans when participating in soccer matches in Tegucigalpa and other villages in the Region.

- Game Show

Approximately six months ago, Radio El Paraiso initiated a game show called "Concurso de los Gigantes" in which listeners win prizes by answering questions asked over the air, usually by calling the radio station. To experiment with this kind of format as a possible approach for the breastfeeding campaign, the Project sponsored various prizes during the rainy season, the diarrhea peak of June through August. Listeners won LITROSOL key rings, LITROSOL teeshirts, and two trips to Tegucigalpa by answering technical questions about the treatment of diarrhea with LITROSOL. Once a week, a question was asked which could be answered only through the mail by listeners outside of El Paraiso to try to encourage village participation as well. Sample questions included: "What are the signs of dehydration?" "What should a child with diarrhea be fed?" "What causes dehydration?"

The September formative evaluation will indicate whether this kind of approach is effective and appropriate for the last phases of the Project.

c. Monitoring of Radio Spots

Neither the radio stations nor the Ministry were accustomed to monitoring radio programming to insure that radio spots were being aired at the appropriate times. Last year, Project monitoring showed that up to 25 percent of the programmed spots were not being aired. This control and the consequent recuperation of many of these spots indicated the necessity for continued monitoring this year.

The national radio stations have responded well to the Project claims for lost spots and most have been recovered. The monitoring proved to be profitable during the World Cup Soccer Games when it showed that over 100 spots were not aired, representing a potential loss of almost $1,000.

The monitoring and control of radio programming is more complicated on the Regional level where the three radio stations with the largest rural audience are owned by the same person. The indifference to Project claims has necessitated the implementation of a new monitoring system and closer work with the station announcers. The new monitoring system includes weekly taping of 15 percent of the hours during which the spots should be aired. These tapes can then be used as proof if the spots are not aired. With these tapes, the Project has been able to gain one month of free air time at the end of the Project.

Providing small incentives to the announcers has been effective. In October 1981, the Project sponsored a one-day seminar with the announcers of the three Regional radio

stations during which the importance of LITROSOL in saving chilrens' lives, the basic steps of treatment, and the importance of the radio's role--particularly the announcer's role—were discussed. The Project also offered a prize every four months to the individual announcer and radio station which, according to the monitoring, showed the best implementation campaign by airing the spots at the correct time. (Extra spots were not included in the monitoring.) The correct airing of the spots has improved dramatically since that seminar. Two prizes have been awarded, coinciding with the end of the implementation phases. A trophy has been given to two of the three radio stations, and a competition among the stations has been started.

4. Graphic Materials

The Project continued to design, pretest, produce, and distribute graphic materials for the DDC Program. Photographs of all these materials are attached in Appendix D.

a. Instructional Flyer

The instructional packet containing the two packets of LITROSOL needed for home treatment has undergone four revisions during the last year and the final edition is now being printed for the national program. The changes were made on the results of the formative evaluation and the requests of the DDC Program staff. They include:

- Simplification of the graphics for easier reading and to give them more graphic impact; omission of Dr. Salustiano's picture in the graphic, because the DDC Program staff did not want to give a face to a radio personality.

- Addition to the instructions that LITROSOL should be used for all cases of diarrhea and during the entire diarrhea episode.

- Replacement of the visual and written instructions with a smaller version of the poster of the signs of dehydration that indicate that a child needs immediate medical treatment.

- Replacement of the name of PROCOMSI with the name of the Division of Epidemiologia/Division of Educacion.

b. Flipchart

When the Regional staff and Auxiliary Nurses were asked during the Developmental Investigation what educational materials would be most useful to them in their work, their overwhelming response was a request for a flipchart. For this phase, therefore, the Project has designed and produced a flipchart to train community health workers and help teach rural mothers.

The flipchart consists of 17 pages and is seriagraphed on cloth similar to the LITROSOL flag so the pages are durable and washable. Additionally, the flipchart can be rolled up and put in a saddlebag to be carried on horseback into even the most isolated community. The flipchart is divided into three educational sections:

1) The concepts of diarrhea, dehydration, and rehydration.

2) Instructions on mixing and administering LITROSOL, including correct feeding behaviors.

3) Instructions on certain prevention behaviors, including breastfeeding.

The flipchart has been produced in two sizes. A large size, 22" x 30," will be used by Regional Areas Nurses in community health worker training, and a smaller desk size version can be used by the Auxiliary Nurses during retraining of community health workers and for teaching mothers during clinic visits and in the rural communities. Although the flipchart was originally planned only for Region I, the DDC Program is producing it for the national level as well. A guide to using the flipchart, based on its pilot use during Project training courses, also was written and distributed with each flipchart.

The flipchart was distributed to Region I during the July Auxiliary Nurse monthly meeting and was very well received.

c. Guardian Manual

This manual was developed with the DDC Program staff and will be distributed in the various Regions. The DDC Program evaluation will study what changes need to be made before final drafting. The 19-page manual basically follows the same steps as the flipchart.

d. Posters

Two posters were designed during this phase which also have been adopted by the DDC Program for distribution at the national level. The first poster is a revised version of the poster on the signs of dehydration that was printed last year. This same graphic is also printed on the instructional flyer that each mother receives with her two packets of LITROSOL. The second poster is a large version of the inside face of the instructional packet and outlines procedures for mixing and administering LITROSOL, as well as feeding during diarrhea attacks.

The LITROSOL poster that was designed and printed last year has continued to be distributed throughout this phase, and has been reprinted and distributed at the national level.

e. LITROSOL Flag

The DDC Program also has adopted the LITROSOL flag as part of its national program. The flags were printed during this phase, with one flag planned for each Guardian in the country.

f. Fotonovela

A fotonovela for school children was designed, pretested, and presented during this phase. Distribution of copies was planned for September/October.

The fotonovela tells the story of Mario, a 10-year old boy who is babysitting his little sister who is sick with diarrhea. Mario notices that his sister has signs of dehydration and advises his mother so she can take the child to the health center in time to save her life. On the last page, Mario tells the other school children that they can save their brothers' and sisters' lives by learning the signs of dehydration and by advising their mothers if they see any signs when their brothers and sisters have diarrhea. The fotonovela also includes a self-contained teachers' guide that outlines various activities the teacher can undertake with the children using the fotonovela, such as acting out the plot for the parents.

g. LITROSOL Packets

The Project has continued to collaborate with the Region in the distribution of LITROSOL packets. With the establishment of the national DDC Program and the naming of the Division of Epidemiology as the implementing Division, the Regional Epidemiologist was named responsible for the program on the Regional level. The Project staff has worked closely with him during this phase to improve the packet distribution. Unfortunately, the Regional distribution system is very slow because of a limited number of vehicles. To some extent, the problem has been alleviated by distributing packets through the Regional office rather than with the other medicines from the Regional storehouse. Therefore, any person visiting a rural site, not just the official medicine distribution vehicle, will carry the appropriate number of packets to that site as indicated by the Regional epidemiologist. Problems remain in the control of packets and the slowness of delivery, but an important step has been made in institutionalizing the Project.

On the national level, the Project has continued to provide technical assistance to the DDC Program in the supervision of folding, packing, transporting, and storing the instructional flyers. Although the national program may not have funds to continue to distribute LITROSOL packets in this flyer, the formative evaluations have indicated that the flyer is a key element in the educational program and have shown that many mothers keep the flyer for later reference. It is believed that if a mother receives a flyer with her first LITROSOL packet, it will remain in the community as a future resource.

The Project also has served as an intermediary between UNICEF-Guatemala and PANI to facilitate the purchase of the raw materials needed for the next million LITROSOL packets. To insure sufficient packets, the Project also facilitated, through the Academy and AID, the purchase and storage of 136,000 UNICEF packets. It is expected that as soon as the raw materials arrive, PANI will be able to stabilize the production of LITROSOL packets.

h. Distribution of Graphic Materials

During this phase, the Region and Ministry staff continued to assume more responsibility for the distribution of graphic materials through MOH channels. Graphics were distributed directly to Auxiliary Nurses during their monthly meetings. The distribution of graphic materials to community health workers through the Region's medicine distribution system is very slow, but the evaluation shows that most materials are arriving and being distributed. This also indicates, however, a need for advanced planning to ensure that graphic materials (and packets) are in place when needed.

During this phase, the Project also experimented with two alternative distribution systems—the buses and the schools. The Project contacted and placed posters in all the buses that travel to major towns throughout the Region. Anecdotal feedback indicates that many posters are taken home with the passengers, but they are visible for several trips between the villages and the capital.

Distribution with a limited number of posters through the school was implemented as an experiment to evaluate the system before distributing the more costly fotonovelas in September. Although initial contacts with the Ministry were very enthusiastic, the field evaluation indicates that very few posters have arrived at the schools after three months. This is in part caused by a teachers' strike which has affected relations between the Ministry and the teachers, but it is also representative of the affectiveness of the Ministry of Education distribution system. To assure that at least some fotonovelas

arrive at each of the 819 rural schools in the Region, the Project anticipates distribution through three systems simultaneously:

- Directly to the area Office of the Ministry of Education in the Region.
- Through the mail.
- Through the buses.

Radio will be used to inform the teachers that these materials will be arriving via these channels.

i. Other Activities

The Academy was requested to permit the Field Director to undertake a brief consultancy in El Salvador to help design the educational component of an oral rehydration program for the refugees in El Salvador. The resulting design took advantage of the experience gained in Honduras and materials already produced by the El Salvador program.

The Project also participated in a National Seminar on the Interchange of Ideas on Nonformal Education which was sponsored by the Committee on Literacy and Nonformal Education in Rural Development in Latin America. The seminar was implemented by the Honduras radio schools program ACPH. Project staff presented the methodology used for the development of educational materials, demonstrated samples, and discussed changes made as a result of pretesting and formative evaluations. Project staff also participated in the provisional commission responsible for writing the conclusions of the seminar as well as recommending guidelines for nonformal education for the Ministry of Education.

B THE GAMBIA: Diarrheal Disease Campaign

I. Training

The Project completed the final two, of a series of six, in-service training sessions on management of diarrheal disease for rural health staff. These last two sessions were conducted during the weeks of June 13 and June 20 for a group of 18 Leprosy Inspectors and a group of 20 mixed Community Health Nurses, Health Inspectors, Dresser Dispensers, and Nurse Midwives, respectively.

The following totals of rural health staff have thus been trained by the Project to date:

Dresser Dispensers	11
Health Inspectors	20
Nurse Midwives	13
Community Health Nurses	46
Leprosy Inspectors	18

Peace Corps Volunteers	10
Trainee Community Health Nurses	28
Total	146

Each Health Inspector, Community Health Nurse, and Leprosy Inspector trained by the Project (a total of 84) was instructed to identify and train village volunteers in 10 villages surrounding their posts on selected aspects of diarrhea management, namely the mixture and administration of the sugar-salt solution and the promotion of breast milk and solid foods. Each of these volunteers was given two of the Project's graphic products, a Red Flag to identify her compound, and a "Special Diet for Diarrhea" poster for use in teaching village mothers.

Thus, a total of approximately 840 "Red Flag Volunteers" have been trained in addition to the formal health system staff. Project staff personally identified more than 50 Red Flag compounds along the main roads while on trek, and conducted interviews with 10 Red Flag Volunteers during a monitoring trek shortly after this training phase had begun (see Red Flag Volunteer Monitoring Trip Report). In general, it was found that the Volunteers had thoroughly learned the mixture of the sugar-salt solution, but had some difficultly in reporting back all the key points of administration and in using the poster as an educational aid. These results were reported to the rural health staff members that were visited and they were encouraged to make follow-up visits to the Red Flag Volunteers whom they had contacted for further training.

On October 15, the Project sponsored a special seminar entitled "New Directions in the Management of Infant Diarrhea" for members of The Gambian medical community. The purpose of the seminar, conducted cooperatively with The Gambia Medical Association, was to orient the country's private practitioners and government physicians to the Medical and Health Department's policy and program in diarrheal disease control.

Dr. Fred Oldfield, Director of Medical Services, presented the government policy; Dr. Michael Rowland from the Medical Research Council reviewed the research on diarrheal disease and oral rehydration; and Mark Rasmuson, the AED Field Director, described the Mass Media Project and reported some of Stanford University's preliminary baseline research findings (Stanford Field Director Peter Spain was on leave at the time of the seminar).

The seminar was attended by more than 40 Gambian and expatriate physicians, including a visiting delegation of three from the Ministry of Health in Sierra Leone, and senior representatives from The Gambia nursing community. Each physician attending received a special packet of educational materials, including a copy of the Medical and Health Department's manual on the management of diarrhea, as well as copies of the Project's posters.

Project staff participated in the planning and implementation of the "National Seminar on Development Communications" held in The Gambia June 7-19 under the sponsorship of the Academy for Educational Development, Radio Gambia, and USAID. This seminar provided training in instructional radio production to 28 mid-level professionals from Radio Gambia and from other government departments working with Radio Gambia. A final report is attached in Appendix E.

2. Distribution of Graphic Materials

In addition to the distribution of educational materials to physicians, rural health staff, and Red Flag Volunteers described under "Training" in this and previous reports, the Project has distributed graphic materials as follows:

- Approximately 150,000 Mixing Flyers, providing instructions on mixing the sugar-salt solution, were distributed throughout the country during the month of August as part of the "Happy Baby Lottery" (further detail following). These flyers were delivered by Project staff to all rural health centers, from where they were then distributed to rural dispensaries, subdispensaries, and Red Flag Volunteers. Mothers were informed over the radio that they could obtain a Mixing Flyer, their "ticket" to enter the Happy Baby Lottery, at one of these sites.

- Bulk orders of Project materials were delivered upon request to the following:

--Assistant Director of Education (for distribution to rural primary and secondary schools)	400 "Diet" posters 5,000 Mixing Flyers
--Curriculum Development Department (for distribution to in-service training of primary school teachers)	120 "Diet" posters
--Action Aid (British Aid Agency) (for distribution to in-service training of teachers)	80 "Diet" posters
--Gambian Red Cross Association	80 "Diet" posters
--Department of Cooperatives (for distribution to rural Co-op Education Workers)	25 "Diet" posters
--Peace Corps (for health volunteers)	17 Treatment posters 51 "Diet" posters
--Community Health Nursing School	30 "Diet" posters
--World Evangelical Crusade Mission (for distribution to clinics)	7 Treatment posters 7 "Diet" posters
--Methodist Mission (for distribution to clinics)	5 "Diet" posters 5 Red Flags

- A partial listing of other agencies which have received samples of Project graphic materials includes:

  --School of Public Health, Banjul
  --School of Nursing, Banjul
  --Dept. of Pediatrics, Royal Victoria Hospital Hospital, Banjul

--Regional Medical Officer, Mansakanko
--Regional Medical Officer, Bansang
--Medical Officer, Bansang Hospital
--Child Health Group, Medical Research Council, Fajara
--Nonformal Education Department, Banjul
--USAID, Banjul
--USAID, Dakar
--UNICEF, Dakar
--Diarrheal Disease Control Program, WHO, Geneva
--Ministry of Health, Sierra Leone
--Ministry of Health, Senegal

3. Radio Programming

During the six-week return visit to The Gambia by Project consultant Esta de Fossard, scripting was completed and production begun on 72 radio programs, one set each for Wolof and Mandinka of 36 different programs as follows:

- The Diet to Prevent Dryness: A series of three spots and two mini-programs designed to inform listeners of the best diet for preventing dehydration/malnutrition, including sugar-salt solution breast milk, and solid foods. Broadcast period: July 12 - August 2.

- The Red Flag: A series of four spots designed to inform listeners of the meaning of the red flags with the picture of the happy baby on them. The spots inform the audience that the women living in a compound flying a red flag have been specially trained by health staff to know how to mix properly and administer the sugar-salt solution. Broadcast period: July 12 - August 2.

- Administration of Sugar-Salt Solution: A series of four spots and two mini-programs designed to provide continued instruction in the correct way to mix the sugar-salt solution, emphasizing the five key points of administering the solution. Broadcast period: August 2 - October 9. (The Project's first series of nine programs, broadcast starting May 1, included instruction in the mixing of the sugar-salt solution and introduced the concept of a "diet" to prevent dryness.)

- Happy Baby Lottery: A series of 11 programs publicizing the lottery, describing in detail the information on the Mixing Flyer lottery "ticket," announcing the names of the 72 villages selected to participate in the first phase of the lottery, and announcing the names of the Grand Prize winners. (A full-page description of the Happy Baby Lottery is attached to this report as Appendix F.) Broadcast period: August 23 - October 9.

- Post-Lottery: A series of three spots making use of taped interviews with mothers who were winners in the lottery and stressing the concept that the real prize—that everyone can win with the Mixing Flyer and that the real prize is a healthier baby. Broadcast period: October 11 - October 25.

- Clean-up Campaign: A series of five spots and two mini-programs that focus attention on the transmission of diarrhea from one child to

another through the contamination of a watery stool that may be transmitted when a child touches the stool, when a mother fails to wash her hands with soap after cleaning up the stool, or by flies who can carry the disease from one place to another. This campaign stresses the importance of keeping the compound free of feces. Broadcast period: October 25 - December 31, in combination with a selection of previous programs as a review of the entire campaign to date.

4. Other Project Activities

a. Happy Baby Lottery

This activity occupied the bulk of the Project's staff time from mid-July to mid-October. This nationwide effort, which sent 18 contest judges into 72 villages throughout the country, came to a climax on October 9 when The Gambian President's wife, Lady N'Jaimeh Jawara announced the names of the Grand Prize winners in a special one-hour program on Radio Gambia.

In addition to 15 radio cassette players awarded to each woman, five village prizes consisting of a 100-kg. bag of rice and a 50-kg. bag of sugar were awarded to those communities that had participated most actively in the village contests. In one of these villages, more than 450 women turned out with Mixing Flyers in hand on the contest day ready to participate. Other village contests were accompanied by festive drumming and dancing, and in one village a sheep was purchased by the alkalo to feed the contest participants.

According to the records kept by the contest judges, a total of 6,580 women participated in the village contests (i.e., came to a contest with a Mixing Flyer to draw for the chance to demonstrate her knowledge to the judge), and participants and spectators totaled 10,728.

b. Briefings on the Project

Project staff gave briefings on the Project to the following individuals or groups:

- Dr. Anthony Meyer, ST/ED/AID Washington.
- Dr. Stan Foster, CCCD/AID Washington.
- Dr. Richard Herniman, CDD/WHO Geneva.
- USAID Mission staff, Dakar.
- Delegation of visiting national health officials from Senegal.
- Delegation of visiting national health officials from Sierra Leone.

C. WATER AND SANITATION COMPONENT

After several delays, the Health Education Project is beginning production and field implementation of its delivery system. Delays through 1981 were caused mainly by negotiations with the Health Sector I Project to secure additional funding. By September

1981, the additional funding was approved and the Health Education Implementation Plan for 1981-1983 was officially sent by the Minister of Health to AID.

From September until November, administrative procedures were established and four potential producers of printed materials were interviewed; by the end of November--after selecting one of the producers—the first in a series of promotional posters was designed.

During December, several radio spots were written and three were selected for production. These were taken to Radio Honduras for taping, using their personnel and equipment free of charge.

Also during December, a tentative plan for classes in health education, using flipcharts, was established. By the end of December, Mr. Luis Canales, the former Health Education Project Director, was reassigned as Education Unit Director, being supervised by Engineer Efrain Giron, Project Director for the Wells and Latrines Component. Mr. Giron has been delegated authority by the Minister of Health to sign any official communication from the MOH Subprojects, including requests to allocate Project money for construction materials and other expenses approved under the Implementation Plans.

Several radio program producers were interviewed. After testing their ability to write scripts with educational messages, their knowledge of the language used in rural areas, their knowledge of radio production, actors, studios, and direction of radio programs similar to the ones to be produced, Mr. Carlos Salgado, who has been producing a very successful commerical program aimed at the rural population for more than five years, was selected to produce PRASAR's educational radio soap opera. Mr. Salgado is charging US$100 for each 15-minute episode, or a total of US$6,000 for the 60 episodes.

Under contract to the AID Mission in Honduras, Creative Associates, Inc. recently completed an evaluation of the health education component of the Water and Sanitation Component. The Academy's review and analysis of the evaluation is attached in Appendix G. In essence, the evaluation focuses on two kinds of problems: policy problems related to the lack of direction with the MOH for the health education effort, and technical problems related to delays in the production of educational materials. After considerable discussion with AID, MOH, and Project personnel, it was agreed that the program should:

1) Focus on fewer messages.

2) Accelerate the production of print materials so that emphasis can be placed on broadcast materials next year.

3) Introduce new training techniques during retraining sessions for health promoters.

Two consultants would be identified to assist in these activities. The first would help select key health behaviors, the second would help plan and develop new training formats stressing community participation.

The program's principal accomplishments to date include:

1. Formative Evaluation

- Material testing of Latrines poster. January 1982.
- Material testing of Hand Pumps poster. February 20, 1982.
- Material testing of "Juanita y la Gotita" No. 1. Ocotepeque, Lempira, and Copan, March 25, 1982.
- Pretest of three radio spots on promotion. Ocotepeque, Lempira, and Copan, March 1982.
- First post-test for formative evaluation of radio spots on promotion. Ocotepeque and Copan, May 1982.
- Material testing of flipchart on promotion. Cortes and Ocotepeque, July 1982.
- Material testing of first two radio programs. Santa Barbara, Ocotepeque, and Copan, August 1982.
- Audience reaction and listenership of radio programs "Frijol el Terrible". Santa Barbara, Santa Rosa, Ocotepeque, and Lempira, September 1982.

2. Training

- "Communications and Health Education" for 45 new promoters. La Caiba, January-March 1981.
- "Communications and Health Education" for 50 new promoters. San Marcos, Ocotepeque, June 1982.
- First In-Service Training "Dialogic Group Dynamics in Health Education" - "The Use of Flipcharts in Health Education" for 20 Promoters I. San Marcos, Ocotepeque, July 1982.
- Second In-Service Training of Promoters:--20 Promoters I "Dialogic Group Dynamics in Health Education," "The use of Flipcharts and the Coded Messages for Health Education." San Marcos, Ocotepeque, July 1982.
- Third In-Service Training, 26 Promoters II, III, and engineers. Puerto Cortes, August 1982.

3. Radio

- Design and production of three promotional radio spots.
- Contact and negotiations to broadcast radio spots in Santa Barbara and Santa Rosa.
- Three radio spots on the air since February 1982, Santa Barbara, Santa Rosa.

- Twenty radio soap operas, two stations, 30-minute programs, air started September 15.

- Broadcast of three promotional radio spots in Santa Rosa and Santa Barbara, April-July 1982.

- Broadcast of two radio soap opera announcement spots in Santa Rosa and Santa Barbara, September 1982.

- Broadcast of ongoing, 30-minute radio soap operas, begun in Santa Rosa and Santa Barbara on September 15, 1982.

4. Print and Graphic Materials

The following materials have been printed and are ready for distribution. Some are already being distributed.

- 3,000 copies of Aqueducts poster, January 1982.

- 3,000 copies of Latrines poster, February 1982.

- 5,000 copies of Hand Pumps poster, April 1982.

The following materials already have been distributed in the field.

- 1,500 copies of Aqueducts poster, January 1982.

- 2,000 copies of Hand Pumps poster, April 1982.

- 3,000 copies of Latrines poster May 1982.

The following materials have been designed and tested. They became or will be available as noted below.

- 5,000 full color copies of comic book "Juanita y la Gotita," October 30, 1982.

- 200 copies of flipchart on "Promotion," October 16, 1982.

- 2,600 school wall chart copies on "Care of the Latrine," November 25, 1982.

- 2,600 school wall chart copies on "Personal Hygiene," December 15, 1982.

D. PRIMARY HEALTH CARE COMPONENT

On June 4, 1982, the MM&HP contract was amended to permit expanded assistance in health education.

Specifically, the Academy will assist the Ministry of Health (MOH) of Honduras in the effective use of mass media in promoting the health of the rural population, and will:

- Analyze, with the heads of the MOH, programs in immunization, diarrhea control, sexually transmitted diseases, maternal-child health, and tuberculosis, and the knowledge of behavioral changes they would be likely to cause.

- Analyze, with appropriate personnel at the MOH, the problems of village health workers (VHWs) in achieving desirable status in their communities.

- Conduct preprogram research with appropriate media messages (including radio, posters, and pamphlets) to formulate a media campaign in the above mentioned subject areas.

- Based on results of the preprogram research, assist the Ministry of Health in analyzing the resources available to formulate a mass media campaign designed to educate the public and motivate village workers to adopt appropriate actions in the areas mentioned above.

- Assist the MOH in the design and implementation of a nationwide mass media campaign aimed at educating village health workers and the public in the areas mentioned above. Such a campaign shall include, as a minimum, the following activities:

  a) 900 live 10-minute radio broadcasts.

  b) 175,000 short (30-second) radio spot announcements

     --150 spots/day for 700 days on 20 major national radio stations.
     --200 spots/day for 700 days on 30 local radio stations.

  c) Production and distribution of 200,000 pamphlets and posters.

- The program will include:

  a) Recognition of outstanding village health workers.

  b) Recognition of active community projects.

  c) Health education messages for village health workers and the public, covering tuberculosis, diarrhea control and treatment, sexually transmitted diseases, immunizations, family planning, and rabies control.

  d) Messages promoting acceptance of specific new village health workers' practices, such as treatment of diarrhea with an oral rehydration solution, and the proper care of umbilicus and placenta at birth.

  e) Announcement of local meetings and continuing education programs in which village health workers should participate.

- Assist the MOH in evaluating and adjusting its campaign. The contractor shall provide five copies of quarterly reports, in Spanish, to the Ministry of Health Coordinator, and one English copy each to AID/S&T/ED and USAID/Republic of Honduras.

On July 26, 1982, Mr. Jose Ignacio Mata was contracted by the Academy to assist the MOH carry out this program. Mr. Mata spent the month of August and most of September meeting with MOH and AID representatives and designing an initial conceptual approach to the health education program.

A preliminary plan was reviewed and approved by MOH. The plan defined a specific approach relying heavily on open broadcast radio and print materials. The campaign focus includes four themes: diarrhea, immunizations, tuberculosis and malaria. The Ministry is receiving support from AID contractor, Medical Sciences for Health (MSH), to develop an administrative infrastructure to support the national program and to provide the face-to-face training required by health workers and medical professionals to carry out the program. The plan developed by Mr. Mata provides for three broad types of educational materials:

1) Radio programs broadcast directly to target audiences to promote selected health practices related to the four themes and to provide general support to the primary health care workers.

2) Simple print materials for the target population which function as reminders of key concepts.

3) Modulerized pamphlets for the primary health care workers and target population which function as a rural health "library and reference guide."

A preprogram investigation plan was developed and scheduled for the months of October and November. Mr. Mata, traveling to Washington, D.C., in December, will use the data collected those two months to develop with the project staff and consultants a detailed implementation plan for the health education component. The draft implementation plan will be completed by December 15, 1982.

E. PROGRAM EXPANSION

On September 30, 1982, AID added some $700,000 to the MM&HP contract to permit a third year of Project activity in The Gambia and to expand the different activities originally contemplated under the program. The following Statement of Work has been added to the Project contract.

1) The contractor is to conduct the intervention at the African site (The Gambia) for three years rather than two years.

2) The contractor is to increase the level of effort under "diffusion activities" to two seminars and five technical assistance/campaign support activities. These five technical assistance/campaign support activities (ta/cs activity) are in addition to the already required two seminars.

   Each ta/cs activity includes:

   a) Technical assistance of up to five person-months, including direct field support by staff and consultants and home office coordination, for a total of 25 person-months for all five activities.

APPENDIX A

IMPLEMENTATION PLAN - HONDURAS

MASS MEDIA & HEALTH PRACTICES

PROJECT IMPLEMENTATION

Academy for Educational Development, Inc.

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

Document # 20

SECOND YEAR IMPLEMENTATION PLAN

HONDURAS

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INTRODUCTION

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

Document #1	Scope of Work - Technical Proposal
Document #2	Contract Scope of Work
Document #3	Semiannual Report No. 1
Document #4	Project Agreement with Honduras
Document #5	Semiannual Report No. 2
Document #6	Honduras Target Region Selection Process
Document #7	Semiannual Report No. 3
Document #8	Principal Health Considerations
Document #9	Developmental Investigation Protocol
Document #10	Institutional Review Board
Document #11	Honduras Regional Background Paper
Document #12	Description of Field Investigation Activity: Honduras
Document #13	Communication and Development
Document #14	Results of Honduras Field Investigation
Document #15	Implementation Plan: Honduras
Document #16	Semiannual Report No. 4
Document #17	Semiannual Report No. 5
Document #18	Semiannual Report No. 6
Document #19	Implementation Plan: The Gambia
Document #20	Second Year Implementation Plan: Honduras

Field Note #1	Packets: Do Visual Instructions Make a Difference?
Field Note #2	Packets: More Questions and Few New Answers
Field Note #3	The ORT Poster: Something Special for the Professionals
Field Note #4	Selecting Campaign Message
Field Note #5	Building a Network of Effective Providers

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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 colloboration between project personnel and the respective Ministries of Health (MOH) in both countries, and emphasize the dual goals of the program:

1) to strengthen the health education capacity of the cooperating countries through the systematic application of mass communication; and

2) to contribute significantly to the prevention and treatment of acute infant diarrhea in isolated rural areas of both countries.

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

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

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

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

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CAMPAIGN SUMMARY

The Problem

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

Communication Objectives

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

Audience Definition

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

Communication Strategies

a. Teach the primary audience:

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

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3. A cluster of behaviors associated with breast-feeding, infant food preparation, and personal hygiene

b. Teach secondary audiences to support the primary audience through:

1. Physicians and nurses using oral therapy in all fixed facilities

2. Fathers and midwives understanding and approving of oral therapy

3. Rural schools teaching prevention measures

4. Regional health promoters distributing ORT packets

Message Tone

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

Execution

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

SECTION I

SUMMARY OF FORMATIVE EVALUATIONS

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

A. RADIO

- The majority of mothers reported hearing at least one MOH message.

- Dr. Salustiano, a radio broadcaster on the spots, has become a well-known, believable source of childcare information among the mothers interviewed. Many mothers believe he is a real doctor at the Ministry of Health.

- There was no significant difference in knowledge gained from radio between the mothers who had used LITROSOL and those who had not.

- Even mothers who had not used LITROSOL had learned that LITROSOL should be given to the child with diarrhea, that it should be mixed in a liter and where it can be obtained.

- Most mothers reported hearing the projects messages on station HRN (the most powerful national station) A much smaller group reported hearing the messages on Radio America (the second most powerful national radio station). However, in one area of the region many mothers reported not listening to HRN, suggesting that both national stations should continue to be used.

- Mothers also reported hearing the spots on regional radio stations, most frequently on Radio Oriental and Radio El Paraiso. Radio Latina and Radio Sonora were very infrequently mentioned, reconfirming the results of the Developmental Investigation.

- Some technical information should be conveyed in a 60-second format rather than the 30-second format. "Consulta para Todos," a new 60-second spot in which real rural mothers ask Dr. Salustiano questions about certain treatment behaviors, has been shown to be very effective.

- The proposed fifteen-minute radio program should have as its target audience the guardianes and midwives that distribute LITROSOL rather than the mothers. The evaluations and discus-

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

- The project should attempt to use all of the free air time possible on both national and local radio stations, in particular the public service announcements, news stories, and the weekly PANI Lottery program.

- The use of mothers voices in the spots has proved to be very effective and mothers tend to have a high recall of these spots which use "typical" voices and vocabulary. This format should continue to be widely used.

B. GRAPHIC MATERIALS

- The distribution system for graphic materials proved to be effective and almost all of the sites, even the most rural, had at least one or two posters in the community. However, after several months, many of the posters were in rather bad shape and needed to be replaced.

- The poster printed on news print (symbol of Litrosol) was reported to have disintegrated within weeks during the rainy season.

- The poster on breast-feeding was the most frequently remembered poster. The symbol of LITROSOL was the least frequently remembered.

- Of all of the materials, the poster on signs of dehydration and the educational flyer were the most frequently used as educational aids by the guardianes, midwives and mothers. Both of these materials are undergoing revision before they are reprinted.

- Many guardianes and midwives are storing their posters since they believe they will not receive more materials. These personnel should be encouraged to put up their posters in the community during the rainy season.

- Both evaluations reiterated the appreciation mothers have for calendars.

- In order to include school children in the campaign the project should begin work immediately on the photonovel which will teach children how to recognize signs of dehydration and help their mothers know when to seek medical help.

C. TRAINING

1. Guardianes and Midwives

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

- Many guardianes were not using the educational flyer correctly when teaching the mothers. In general they would explain the first three steps but would completely skip the information on feeding during diarrhea and signs of dehydration. The use of the packet should be stressed in training and on radio during the year.

- Many community personnel still believe that LITROSOL stops diarrhea, in part because many mothers have reported to the guardianes that the diarrhea stopped when they used LITROSOL. This is most probably because the mothers began using LITROSOL two or three days after the diarrhea episode began, and by the time they began using it the diarrhea was already stopping. The second evaluation showed that some mothers were upset because the second time they used LITROSOL the diarrhea didn't stop. This is most probably because since they had success in "stopping the diarrhea" with LITROSOL the first time, they began using LITROSOL when the diarrhea first started. In any case, it is crucial that the community health personnel understand the concept of dehydration and that LITROSOL is not designed to stop diarrhea.

- Most community personnel are correctly teaching preparation and administration, however, they are omitting feeding during diarrhea. This year's training should re-emphasize these points.

2. Village Mayors

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

D. ORT USE ON THE HOME LEVEL

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

- The majority of mothers reported administering a liter of the mixture in a day, even when the patient was an infant. This was surprising due to the fact that the Developmental Investigation carried out before the campaign began showed that most mothers did not believe that an infant could drink a liter of water in a day.

- The mothers did not understand that feeding during diarrhea is part of the treatment. Most mothers did not remember any advice about feeding or breast-feeding during diarrhea.

- During the first evaluation, most mothers still believed that LITROSOL is a remedy for diarrhea. However, the second evaluation, which took place after several months of radio messages about LITROSOL returning activity and appetite, showed a small but significant group of mothers who understood that LITROSOL is not suppose to stop diarrhea, but rather to "sustain the life of the child during diarrhea" and return activity and appetite.

- Almost all of the mothers used LITROSOL for children with diarrhea under five-years-old. However, some mothers would give part of the mixture to other children in the house, even though they didn't have diarrhea. Some mothers are using LITROSOL as "tonic for extra strength" even though the child doesn't have diarrhea. This has been reduced somewhat by the guardianes and midwives who are instructed not to give mother the packets unless the child has diarrhea.. There also seems to be adult use of LITROSOL.

- In the first evaluation, most mothers did not use the instructional flyer, or hoja-paquete. However, in the second evaluation, after several months of radio messages instructing mothers to follow all of the instructions on the flyer, almost all of the mothers reported that following the instructions was important.

- Mothers were not familiar with the visual signs of dehydration; a message which was only transmitted to a limited extent by face-to-face instruction and the poster.

- The second evaluation showed that LITROSOL has been integrated into the traditional process of treatment of infant diarrhea in the rural communities. However, this integration has caused several problems in diagnosis, administration and preparation:

  * Mothers use LITROSOL for what they consider to be light cases of diarrhea, but not for what they perceive to be serious complex cases such as empacho or ojo. Since these more serious cases are probably more likely to lead to dehydration, it is important that mothers feel that they should use LITROSOL during these episodes as well.

  * The traditional treatment of diarrhea entails the use of a series of different medicines, trying first one, then another, until the diarrhea stops. Many mothers feel that these medicines should not be mixed. The campaign

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

* Rural mothers try to budget their limited resources and some mothers are mixing only part of the packet in part of a liter. This could cause problems in the concentration of sodium. Radio and training should emphasize that all of the packet must be mixed in a full liter of water.

* Many mothers and health workers complained that children didn't like the taste of mixture. A small number of mothers reported adding sugar to help the taste. Training and radio should emphasize that nothing should be added to the mixtures and inform that if the child needs the oral solution he will like the taste.

E. ACCEPTANCE OF ORT WITHIN THE MINISTRY OF HEALTH

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

- The MOH has approved a four year National Diarrheal Disease Control Program which establishes a schedule, assigns personnel and defines resources necessary for a phased national level program.

- A diarrhea disease program director has been named and given full authority to coordinate all aspects of the program from clinical training and packet production to public education.

- Honduras hosted a Latin American regional seminar on Diarrheal Disease Control at which their own program was highlighted and analyzed.

- A rehydration ward was formed at the national pediactric hospital, but was subsequently closed due to lack of financial support. A similar, regional facility was planned but never opened for the same lack of economic resources.

- Some 227 medical personnel, including physicians, nurse supervisors and auxiliary nurses, have been trained in ORT use and diarrheal disease management. Some 692 village health personnel have been similarly trained.

- Some 248,000 Litrosol packets have been produced locally and distributed throughout Health Region I.

- A packet distribution has been developed and is now being fully implemented by Regional Health staff.

SECTION II

CAMPAIGN ELEMENTS

A. OVERALL STRATEGY

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

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

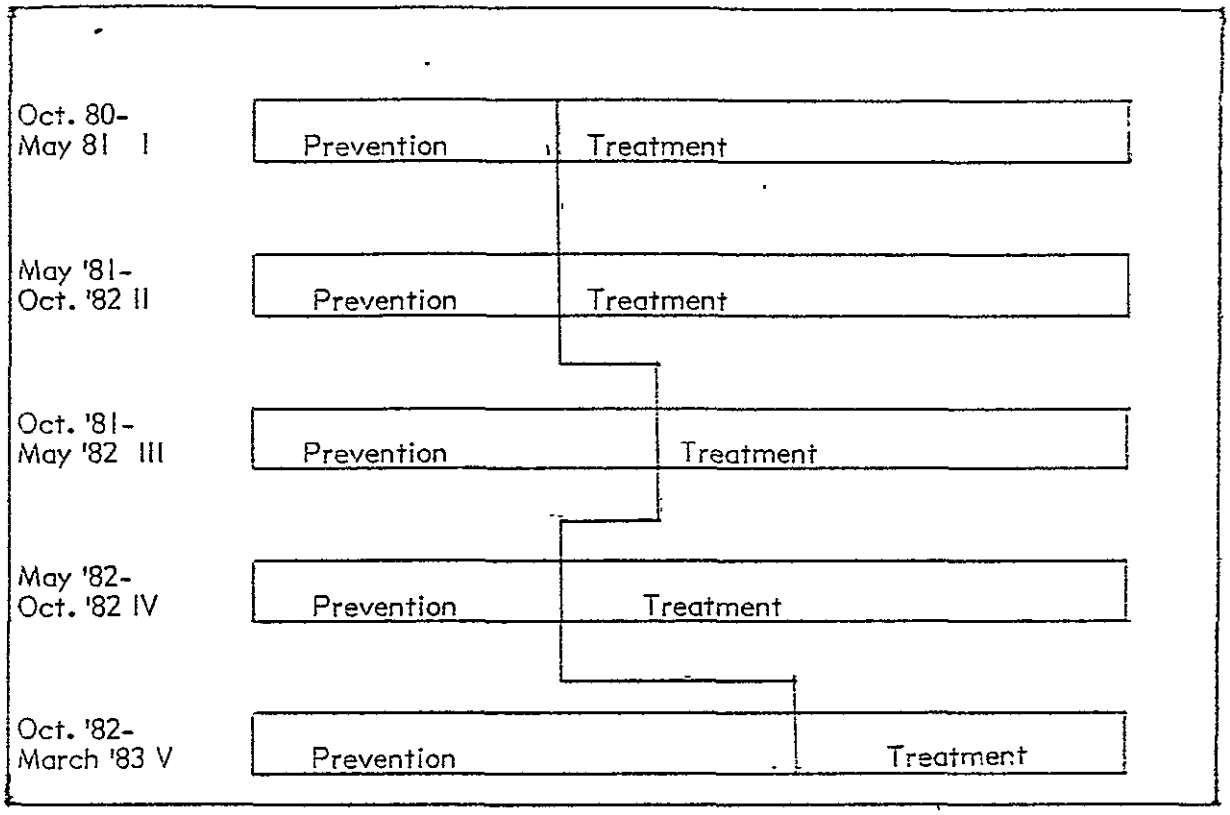
Treatment messages will continue to be stressed over prevention messages for three reasons: (1) ORT offers the most significant and immediate contribution to the health needs of rural Hondurans, (2) the behaviors required to make ORT successful in rural homes represent an optimal range of instructional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

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

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

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

GRAPH #1 CAMPAIGN PHASES



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

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

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

B. SEGMENTATION OF TARGET AUDIENCE

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

- Primary Audience (Category A)

  1. Mothers/grandmothers of families with children less than five years old

  2. Primary health care workers (guardianes) or trained midwives (midwives) in communities with no guardianes

- Secondary Audience (Category B)

  3. Fathers of families with children less than five years old

  4. Auxliary nurses

  5. Physicians

  6. Rural school teachers and rural primary school children

  7. Health promoters

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

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

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

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

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

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

C. MESSAGE DEFINITION

1. Treatment Messages

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

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

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

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

- Cluster B: Acceptance Knowledge

  7. State that mixture should be given during all episodes of diarrhea, not just mild cases.

- Cluster D: Mixing Ability

  10. State that three bottles of fresco make one liter.

- Cluster E: Administration

  1. State that mixture can be used while administering other medicines for diarrhea.

2. State that mixture should be given during the entire episode of the infants diarrhea episode, not for just one or two days.

3. Continue breast-feeding during diarrheal episodes.

4. Give soft foods six hours after diarrhea starts. Do not stop foods.

- Cluster F: Seek External Help

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

2. Prevention Messages

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

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

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

GRAPH # 2 MESSAGE CONCEPT by TARGET AUDIENCE

		Mothers/ G.Mothers		Guardians/ Partners		Pub. Hlth. Nurses	Auxil. Nurses	Fathers	Schools	Health Promot.
TREATMENT	ACCEPTANCE (CORE THERAPY)	↑	✓	↑		↑	↑	✓	✓	
	DIAGNOSIS (CORE THERAPY)				✓			✓	✓	
	PROCUREMENT (CORE THERAPY)									✓
	MIXING (CORE THERAPY)				✓					
	ADMINISTRATION (CORE THERAPY)		✓		✓					
	RECOVERY (CORE THERAPY)							✓		
	SEEK HELP (CORE THERAPY)	✓	✓	✓	✓	✓✓	✓	✓	✓	
	(ADDITIONAL MESSAGE CONCEPTS) · ANTIBIOTICS/DRUG THERAPY					✓	✓			
	· FIXED FACILITY REGIMEN					✓	✓			
	· TEACHING BEHAVIOR				✓		✓			
PREVENTION	PRE-REQUISITE CONCEPTS		✓		✓					
	BREASTFEEDING		✓		✓	✓	✓	✓		✓
	FOOD PREPARATION				✓		✓		✓	
	PERSONAL HYGIENE				✓		✓			

D. MESSAGE PHASES

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

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

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

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

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

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

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

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

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

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

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

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

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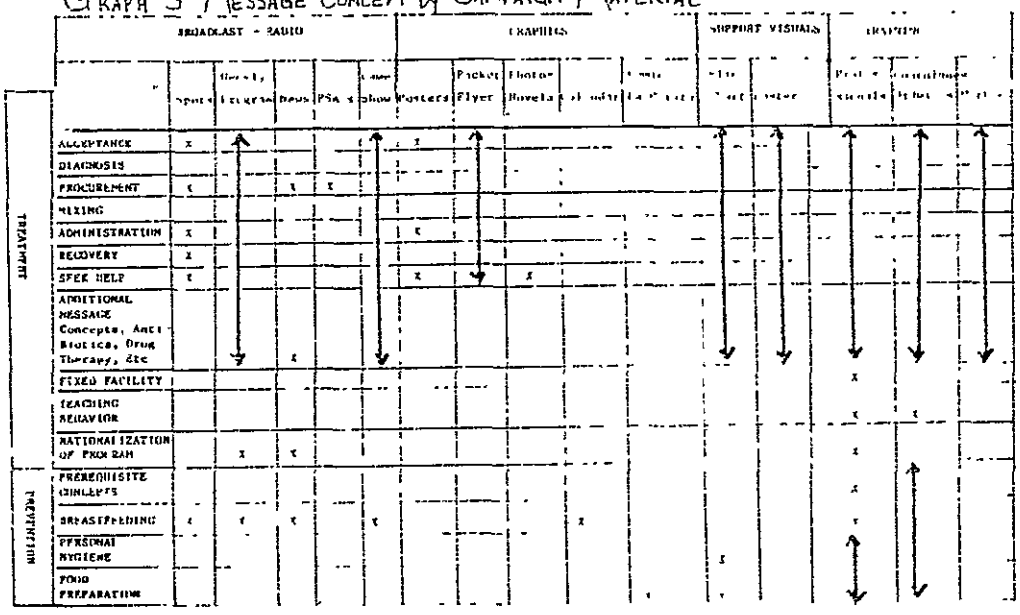
E. INSTRUCTIONAL MATERIALS

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

GRAPH #3 MESSAGE CONCEPT BY CAMPAIGN MATERIAL



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

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

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

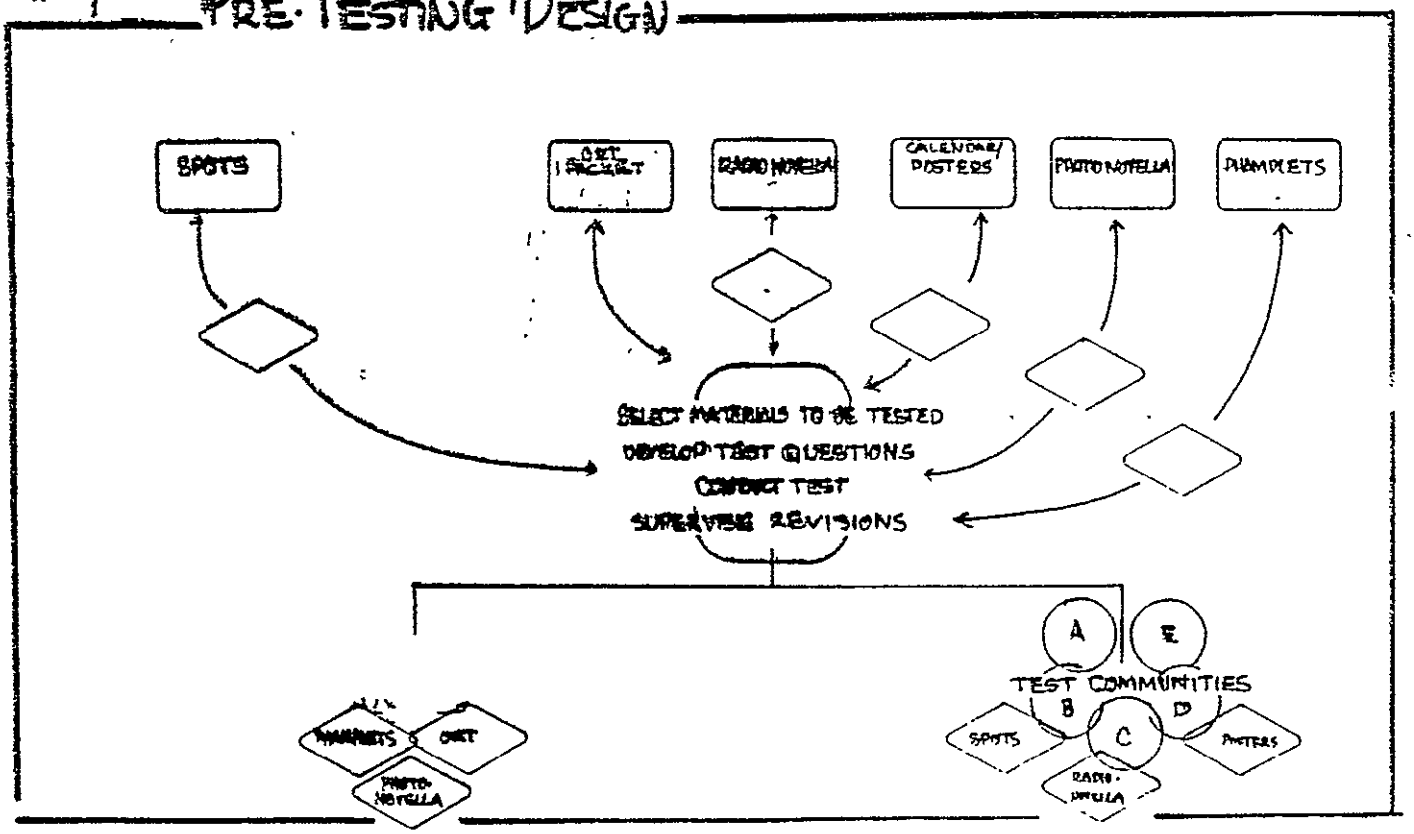
school children the signs of dehydration and how to alert their mothers to seek help. A calendar, chosen because of its popularity among rural people, will be awarded to mothers who breast-feed their children for an extended time, and will promote messages which promote breast-feeding. These few examples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

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

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

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

GRAPH #4 PRE-TESTING DESIGN



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

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

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

The following paragraphs provide details on the instructional materials.

1. Radio

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

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

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

a. Spots

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

- USE LITROSOL WITH OTHER MEDICINES. (The Formative Evaluation showed that many mothers would not use LITROSOL while they were giving other medicines.)

- USE LITROSOL FOR EVERY CASE OF INFANT DIARRHEA. (The Formative Evaluation showed that mothers used LITROSOL only during "light" cases of diarrhea, but

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

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

The other messages of the treatment phase include:

- Information on signs of dehydration which signal that the mother should seek professional help. This emphasis is being given to try to make up for the fewer number of packets available.

- THREE SODA BOTTLES EQUAL ONE LITER. This message from the first year will be repeated based on the findings of the Formative Evaluation in February that the retention of this essential message was not as high as necessary.

- MIX ALL OF THE CONTENTS OF ONE PACKET IN ONE LITER OF WATER. The Formative Evaluation showed that many mothers were only mixing part of the packet in part of a liter in order to conserve their supply of LITROSOL.

Messages for spots of the prevention phase will be defined with the Breastfeeding Committee.

b. Fifteen-minute radio program

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

c. Public service announcements

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

d. News stories

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

e. Game show

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

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

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

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

2. Graphics

a. Treatment graphics

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

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

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

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

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

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

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

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

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

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

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

b. Prevention graphics

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

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

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

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

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

F. TRAINING

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

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

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

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

The auxiliary nurse re-training will include the following:

- Treatment and behavior messages. As outlined in the Formative Evaluation, there is a need to emphasize messages addressing the problems reported in the mixing administration of LITROSOL. These include confusing the liter bottle measure, saving part of the content of the packet, adding other elements such as sugar to the mixture, stopping the administration of LITROSOL after two days, and continued feeding during diarrhea.

- Treatment of dehydration in a fixed facility. Training will review the basic steps of ORT in the clinic using the Oral Rehydration Process Poster which was designed and used in training during the first phase last year. Practical exercises will be emphasized to review the step-

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

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

  * Emphasize that the rainy season months are the most important months to treat children with diarrhea and that it is important to emphasize the use of LITROSOL during these months

  * Review the signs of dehydration using the poster and emphasizing how the guardian should teach the mother

  * Review the proper use of the educational flyer using a socio-drama to help teach

  * Ask the guardian or midwife to call a meeting of their neighborhood in which they inform the community of the dangers of dehydration caused by diarrhea during the rainy season months, inform the community that they have packets of LITROSOL and teach the signs of dehydration

  * Ask the guardian or midwife to put up the posters in their communities

  * Inform the guardian about the weekly radio program designed especially for them

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

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

G. DISSEMINATION SYSTEM

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

1. Distribution of ORT Packets

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

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

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

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

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

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

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

2. Distribution of Print Materials

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

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

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

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

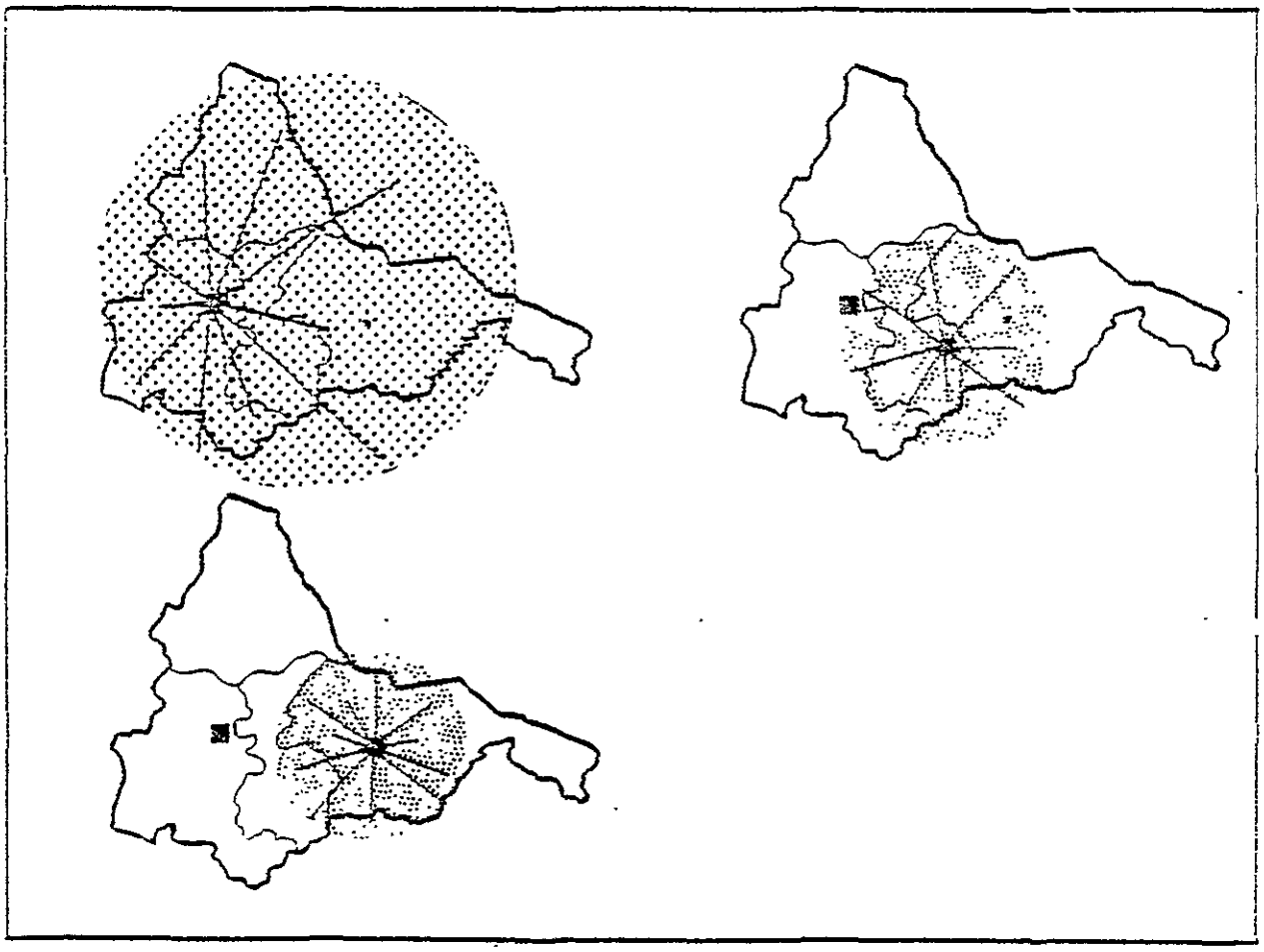
3. Broadcast Schedule

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

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

Graph #5 shows the estimated broadcast range of the national versus the regional stations, and thus the broadcast area for IT-7. It is clear from this graph that the three national stations reach areas outside the target region. Because the MOH is implementing a national ORT program it is not considered necessary to restrict broadcast of ORT information to the MM&HP target area. The regional stations are limited to the southern part of the region alone. The different broadcast areas of national and regional stations will permit some messages to be broadcast everywhere while others can be selectively targeted to the southern area alone.

GRAPH #5 REGIONAL and NATIONAL BROADCAST RANGES



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

	PHASE IV (MAY 1 - AUG 31) SATURATION BROADCASTING	PHASE IV (SEPT) and PHASE V SUPPORT BROADCASTING
NATIONAL RADIO STATIONS	HRN • 11 radio spots per day (240/month) • 1 15-min radio program per week (4/month) RADIO AMERICA • 4 radio spots per day (88/month) • 1 song per day (24/ month)	HRN • 7 radio spots per day • 1 15-min radio program per week
REGIONAL RADIO STATIONS	RADIO ORIENTAL-DANLI • 20 radio spots per day (480/month) • 5 songs per day (120/month) • 1 15-min radio program per week RADIO LATINA-DANLI • 20 radio spots per day (480/month) • 5 songs per day (120/month) • 1 15-min radio program per week • 3 awards on the same game show per week (12/month)	RADIO ORIENTAL-DANLI • 20 radio spots per day (480/month) • 5 songs per day (120/ month) • 1 15-min radio program per week RADIO LATINA-DANLI • 20 radio spots per day (480/month) • 5 songs per day (120/month) • 1 15-min radio program per week • 3 awards on the same game show per week (12/month) RADIO EL PARAISO-EL PARAISO • 20 spots per day • 5 songs per day • 1 15-min program per week

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

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

Graph #7

PROGRAMMING OF THE RADIO SPOTS: FOURTH PHASE

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

H. MONITORING OF CAMPAIGN COMPONENTS

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

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

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

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

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

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

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

SECTION III

INSTITUTIONALIZATION

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

1. Extensive in-service training of three counterparts within the Ministry's Health Education Unit, one each in radio campaign design, graphic material development, and behavioral training technology.

2. Widespread contact with all levels of MOH personnel to inform and involve them in the project's continued development and implementation.

3. Transferral of all technical and substantive decision-making to MOH authorities.

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

1. The presence of three full-time salaried professionals in the Health Education Unit with the aformentioned responsibilities and capacities.

2. The formation of a technical review committee plus regular meeting with all key MOH officials.

3. Verbal support expressed by MOH authorities for the program's principal operational tactics:

   a. integrated instructional media

   b. empirical development of instructional materials based upon audience needs

   c. timely production and distribution of all materials

   d. regular monitoring and modification as needed.

4. A budget structure which permits and supports:

   a. adequate broadcast levels
   b. materials testing and research

5. Serious planning toward or actual implementation of an expanded program of public education going beyond the resources provided by the MM&HP program.

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

1. 80% of one counterpart salary is being provided by the MOH. In addition the Ministry has requested that the project fund two additional people. The Ministry has energetically requested permission from the National Budget Authority to add three new positions but due to external financial factors beyond their control these requests have been rejected.

2. Three counterparts have been trained and are ready to accept positions with the Health Education Unit should the nation's financial situation permit the office to be expanded.

3. The MOH has formed a multi-divisional review panel to oversee all project activity. This panel has reviewed, modified when necessary, and approved all substantive project activities.

4. An excellent reputation within the Ministry. MOH officials have highly praised the project, particularly the integration of instructional media and the timely production and distribution of campaign materials, although key MOH officials continue to be skeptical about how much pre-program investigation and regular monitoring are necessary or affordable.

5. The MOH has provided budgetary support to the broadcast and materials development phase of the program gradually assuming a larger share of these costs than originally expected. This has been done largely by redirecting funds from other purposes, rather than by adding new money to the pre-program budgetary levels.

6. The MOH has formed a National Diarrheal Disease Control Unit whose primary responsibility is the expansion of the regional program to national scale. In this expansion reliance is being placed on the methodology and materials developed by the initial program.

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

1. Assisting the MOH to develop a plan for incorporating empirical program development efficiency within the overall operational structure, including defining who will be responsible and how much will be necessary.

2. Finding some means of utilizing the three individuals already trained in future programs.

APPENDIX A

ORIGINAL TREATMENT BEHAVIORS

- Cluster A: Diagnosis

  1. Recognize that the child's stool pattern is abnormal.

  2. Confirm that the following symptoms are present:**

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

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

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

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

- Cluster B: Acceptance Knowledge

  1. Identify rehydration packet as medicine for dehydration, not diarrhea.

  2. Identify rehydration packet as able to help restore appetite and activity of child, without stopping the watery stools or reducing the number of stools.

  3. Identify purpose of rehydration medicines as replacing liquids which are important for activity and appetite.

  4. Identify rehydration medicine as better than purge, starvation, and home remedies.

  5. Identify cost of mixture in dollars (lempiras) and effort, and where available.

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

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

- Cluster C: Procurement Knowledge

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

- Cluster D: Mixing Ability

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

- Cluster E: Administration

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

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- Cluster F: Seek External Help

  1. If diarrhea continue after two days, seek medical help.

  2. If vomiting continues more than five times a day, seek medical help.

  3. Give infant medicine during trip to clinic if possible.

- Cluster G: Recovery Behavior

  1. Feed child soft-boiled eggs each day for ten days after diarrhea stops and child's appetite returns.

  2. Give child more food after diarrhea than is normally given.

  3. Give child additional food for as many days as he had diarrhea.

APPENDIX B

TRAINING PLAN FOR COMMUNITY HEALTH WORKERS

Appendix B

CONSOLIDADO DE LA PROGRAMACION DE ADIESTRAMIENTOS A PERSONAL COMUNITARIO PARA EL AÑO DE 1982 - REGION SANITARIA NO. 1

DIESTRAMIENTO A:	AREA DE SALUD	FECHA	LUGAR	NO. DE PARTIC.	RECURSO HUMANO	MATERIAL NECESARIO	OBSERVACIONES
ardianes de Salud	No. 1, Danlí	MARZO 8-12	Villa Santa	16	Nidia Andrade	Cuadernos	
ardianes de Salud	No. 1, Danlí	15 -20	Potrerillos	12	Edelma Umanzor	Lápiz tinta	
ardianes de Salud	No. 1, Danlí	22 -27	Quda. Larga	6	Ma Cristina T.	Papel stress	más 3 aldeas de
ardianes de Salud	No. 1, Danlí	29 -2 Abri.	Las Selvas	6	Nidia Andrade	Cartulina	Cesar Jacaleno.
rteras Empíricas	No. 3, F.M.	8 -13	Texiguat y Vado Ancho	27		Marcadores Rotafolio	Será en Texiguat
ardianes de Salud	No. 3, F.M.	22-26	Tatumbla	7		Pizarra	
ardianes de Salud	No. 4, Tal.	8 -13	Orica	12		Papelería para información de Yaniquíes.	
		ABRIL					
ardianes de Salud	No. 1, Danlí	19 -24	El Olingo	9	Ma Cristina T.		más 3 aldeas de
rteras Empíricas	No. 2, F.M.	12 -17	Villa S. Franco	8	Belén Nuñez	Manual de P.E.	Cesar de Las Casas
ardianes de Salud	No. 3, F.M.	19 -24	Cofradía	5	Eda de H.H.	A. y G. de S.	
ardianes de Salud	No. 4, Talang.	19 -24	Miralda	6	Rosario de Paz	Sacapunta Lápiz grafito	
		MAYO					
ardianes de Salud	No. 1, Danlí	17 -22	San Isidro	9	Ma Cristina T.	Maskin Tape	
uardianes de Salud	No. 2, F.M.	10-15	Cantarranas	12	Belén Nuñez	Chinches	
epresentantes de S.	No. 2, F.M.	10-15	Cantarranas	15	Promotor	Papel bond tamaño grande	
ardianes de Salud	No. 3, F.M.	17-21	Vado Ancho	7			
ardianes de Salud	No. 3, F.M.	17-21	Texiguat	5	Eda de H.H.		
		JUNIO					
ardianes de Salud	No. 1, Danlí	7 al 12	Teupasenti	15	Ma Cristina T. Edelma U.		
rteras Empíricas	No. 1, Danlí	21 -26	Las Selvas	12	Edelma U.		
rteras Empíricas	No. 1, Danlí	14 -19	CHA, Danlí	8	Leopoldina R.		
ardianes de Salud	No. 2, F.M.	21 -26	S. Ant. F.	16	Belén Nuñez		
epresentante de S.	No. 2, F.M.	21 -26	S. Ant. F.	13	Promotor		
uardianes de Salud	No. 4, Talanga	14 -19	Vallecillos y T. Queda.	9	Rosario de Paz		
		JULIO					
ardianes de Salud	No. 1, Danlí	12 -17	Cifuentes	10	Nidia Andrade		
uardianes de Salud	No. 3, F.M.	5 -10	Lepaterique	22	Eda de H.H.		
ardianes de Salud	No. 3, F.M.	26 -31	San Matías	5	Nelly E. Dejia Eda H.H.		
ardianes de Salud	No. 4, Talanga	19 -24	Talanga	15	Rosario de Paz.		

PROGRAMACION DE ADIESTRAMIENTOS DEL SISTEMA COMUNITARIO

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

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

b) Campaign support in the form of radio programming, pretesting, printing, and local training up to $19,050 per activity, for a total of $95,250 for all five activities.

3) The final mix of technical assistance and campaign support for each activity is to be based upon a plan of work submitted to the ST/ED, Project Officer. The contractor is required to submit a plan of work and cost proposal for each ta/cs activity to ST/ED. ST/ED approval of this plan is required prior to each ta/cs activity.

4) The contractor is to submit 10 copies of a report describing each ta/cs activity within one month after its conclusion.

F. COORDINATION WITH EVALUATION CONTRACTOR

In addition to regular communication between field and home office staff, Dr. William Smith traveled to Stanford University to review with Dr. Foote from May 10-14 the progress of the evaluation activity. Three preliminary data sets have been given to the Academy by Stanford. As yet, no official reports or findings have been made available.

G. DISSEMINATION ACTIVITIES

The following presentations were made by MM&HP staff during the period.

• University of Pennsylvania, Annenberg School of Communication	April 5
• S&T Health Office Staff	April 6
• Agency Director for Human Resources, Ms. Ruth K. Zagorin	April 12
• Latin American Health Officers, Coolfont Meeting	April 21
• Represenative of AID Disaster Relief Office	April 29
• Representative of AID CCCD Project	May 26
• AID Health Counterpart Jordan Mission	July 13
• World Futures Society Meeting	July 20
• Cornell University International Communication Seminar	August 2
• Ecuador AID Mission and Ministry of Health Staff	August 15-20

(See Appendix H for Trip Report)

SECTION IV

ACTIVITIES PROJECTED FOR PERIOD OCTOBER 1, 1982 - MARCH 31, 1983

A. HONDURAS DIARRHEA PROGRAM

1. Complete final phase of broadcast campaign.
2. Prepare administrative procedures for closing local office and transferring materials to Primary Health Care Component.
3. Begin work on project methodological handbook.
4. Transfer of Elizabeth Booth to Primary Health Care Component.
5. Continue assistance to Ecuador diarrhea program.

B. THE GAMBIA DIARRHEA PROGRAM

1. Complete first-year implementation plan.
2. Conduct formative evaluation of first broadcast year impact.
3. Develop implementation plan for second broadcast year.

C. WATER AND SANITATION PROGRAM

1. Complete production of all print materials.
2. Review target behavior and develop new broadcast strategy.
3. Emphasize increased community training.

D. PRIMARY HEALTH CARE PROGRAM

1. Conduct field research for development of implementation plan.
2. Prepare implementation plan for first year by December 15, 1982.
3. Carry out activities specified in approved implementation plan.

SECTION V

ADMINISTRATIVE REPORT

Expenditures to September 30, 1982

Category	MM&HP	W&S	PHC	TOTAL
Salaries & Wages	$450,592	$69,983	$5,806	$526,381
Employee Benefits	89,193	17,140	1,451	107,784
Consultant Fees	30,427	---	---	30,427
Travel and Transportation	117,941	19,000	707	137,648
Overseas Allowances	49,364	23,141	---	72,505
Other Direct Costs	216,530	14,994	1,475	232,999
Equipment	32,058	923	---	32,981
Overhead	234,773	31,874	2,549	269,196
Total	$1,220,878	$177,055	$11,988	$1,409,921

Best Available Document

APPENDIX B

IMPLEMENTATION PLAN - THE GAMBIA

PD-AAD-999

MASS MEDIA & HEALTH PRACTICES

PROJECT IMPLEMENTATION

Academy for Educational Development, Inc.

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

DOCUMENT #19

IMPLEMENTATION PLAN

THE GAMBIA

Project Director

Dr. William A. Smith

Project Field Coordinator

Dr. Mark Rasmuson

February 1982

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ACKNOWLEDGEMENTS

The Academy wishes to express its sincerest gratitude to the Ministry of Health of The Gambia, especially Dr. Philip Gowers and his staff, for all their support and assistance in developing this plan.

We also wish to acknowledge the special assistance of Dr. Michael Rowland and Dr. Anthony Tomkins of the Medical Research Council staff who so kindly volunteered their time during the planning stages of this program.

Special thanks also go to Laurel Elmer for her research and writing assistance.

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INTRODUCTION

This document is one of a series of reports prepared by the Academy for Educational Development, Inc. under its Mass Media and Health Practices Project contract with the United States Agency for International Development. It represents the results of a six-month field investigation in The Gambia and draws upon information detailed in several of the previous documents in this series. To avoid restating much of what has already been written, the author will make frequent references to several earlier documents in the series. The full series includes:

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

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CAMPAIGN SUMMARY

I. THE PROBLEM

The Gambia reports that gastroenteritis and malnutrition account for 21.3% of all deaths in children under five years old in Banjul when health statistics are most reliable. It is estimated that rural areas of the country experience comparable or more serious mortality rates due to the same two causes. This represents the most significant cause of death for children of this age group. Existing prevention and treatment methods vary widely within the country and are generally considered inadequate to meet the problem.

II. COMMUNICATION OBJECTIVES

A. Substantially reduce the number of deaths among children below the age of five from diarrheal dehydration.

B. Establish one sugar/salt rehydration regimen as a standard for village-based prevention of dehydration.

C. Differentiate the village level management of diarrheal disease to meet the seasonal characteristics of the wet and dry season diarrhea/malnutrition complex.

D. Establish a regular faeces clean-up campaign within a significant number of rural family compounds.

III. AUDIENCE DEFINITION

A. The primary audience is rural mothers, grandmothers and older female siblings of children under five.

B. The secondary audience includes Rural Health Inspectors, Community Health Nurses, Health Peace Corps Volunteers, Leprosy Inspectors, Maternal Child Health teams, and Primary Health Care Workers.

C. A tertiary audience includes general physicians, dresser/dispensers, local leaders (alkalos) and rural fathers of children under five.

IV. COMMUNICATION STRATEGIES

A. Teach the primary audience:

1. To properly mix the simple sugar/salt rehydration solution (S/S).

2. To administer the solution causually along with breast milk and adult foods during episodes of wet season diarrhea.

3. To administer the solution intensively along with breast milk during episodes of dry season diarrhea.

4. To seek outside assistance if the child shows signs of listlessness and/or dark sunken eyes.

5. To identify one member of the family to regularly clean up human and animal faeces from the family compound floor.

B. Teach secondary audience:

1. To properly mix and administer S/S rehydration solution.

2. To properly manage moderate and severe dehydration in the health centers using UNICEF packets.

C. Motivate the tertiary audience:

To support and praise mothers who properly use S/S solution for diarrhea.

V. MESSAGE TONE

The tone of the campaign will be serious and straight forward promoting a remedy, the basics of which is built upon existing widespread recognition and concern over "dryness" in small children; offering a potentially powerful prevention for such "dryness." S/S will be presented as part of a complete "diet for dryness" which includes specialized feeding and continued breastfeeding.

VI. EXECUTION

Radio, print, and health worker training will be combined to provide the same message over multiple channels. Radio spots, mini-programs and magazine format radio programming will deliver a seasonally structured series of messages. A national rural lottery which uses radio to teach the audience how to use a color-coded mixing flyer will be the central element in a program

to teach S/S mixing to rural women. This will be strengthened by trained Traditional Birth Attendants (TBA) in a significant percentage of rural villages. These TBA's will provide back-up support to mothers in remembering and applying S/S therapy. Simultaneously, UNICEF packet rehydration will be introduced at the rural health center level as the preferred treatment for moderate and severe dehydration. Also simultaneously, a faeces clean-up campaign relying heavily on radio will be conducted to link the concept of cleanliness during prayer, advocated by Islamic principles, to the need to maintain the floor of the family compound as a clean place upon which to pray.

SECTION I

PROJECT OVERVIEW

A. PROJECT OBJECTIVES

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

B. PROJECT ADMINISTRATION AND OPERATION IN THE GAMBIA

The field project in The Gambia is a two-year portion of the overall Mass Media and Health Practices (MM&HP) project, which includes a 36-month intervention in Honduras as well. The Gambia activity is subdivided into two distinct activities: a six-month pre-program research activity and the actual execution, monitoring, and revision of the public education campaign. The project has modest financial resources to develop and produce the radio, graphic, and in-service training materials required. The MM&HP project also provides one expatriate technical assistant to the Health Education Unit of the Medical and Health Department.

The Gambian Ministry of Health (MOH) provides one full-time counterpart and office space, and the national radio system is covering all broadcast costs. A coordinating committee has been established by the Ministry to review project activities and to ensure that the project is consistent with the Government's overall health priorities. Dr. Philip Gowers, Medical Officer of Health, has been identified as the program's principal supervisor.

C. PRINCIPAL COMPONENTS

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

The health problem being addressed involves both prevention and treatment behaviors associated with acute infant diarrhea in primarily rural areas. The range of appropriate treatment behaviors is relatively small, and there remains a significant controversy among medical experts as to the exact way in which these few treatment alternatives should be promoted at the rural community level. The MM&HP project in The Gambia will seek to reduce infant mortality by promoting UNICEF-packaged oral rehydration therapy (ORT) through existing health facilities, and early administration of a home-mix S/S rehydration solution in the home.

The selection of prevention behaviors presents a somewhat different problem. There are so many potential sources of contamination in a rural community that the number of necessary intervention points is overwhelming. The problem is compounded by a general skepticism that health education alone is sufficient to convince rural people to make the kind and number of changes needed to produce any measurable reduction in diarrheal morbidity. Project staff have determined that one key prevention behavior should be included however, because it provides an opportunity to investigate media's potential to affect a behavior which is of special interest to the health community. A faeces clean-up campaign within family compounds has been selected as one behavior susceptible to influence by the proposed public education campaign. We believe that if the project is able to demonstrate that this critical behavior has been changed by the program, even in the absence of any demonstrated reduction in diarrheal morbidity, the project will have made an important contribution to health education.

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

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

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instructional tools to promote the widespread adoption of the selected behaviors.

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

From a behaviorist point of view, there are five circumstances which singly or in combination account for absent behavior. First, necessary materials or implements (like sugar and salt) may be unavailable. Second, prerequisite skills, discriminations, or knowledge may be lacking. (For example, rural mothers may know that S/S solutions are good but not understand how to mix them properly.) Third, there may be no incentive (like immediate improvement in their child's health) to engage in the behavior. Fourth, there may be incentives to engage in incompatible behavior (like giving kaolin or withdrawing food from the sick child). And fifth, there may be punishing consequences which discourage the desired pattern. (A child may vomit, for example, or his diarrhea may actually appear to increase.) An understanding of these factors is absolutely critical in the development of an effective instructional intervention.

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

Another important point to emphasize is effective delivery of positive consequences or rewards. Behavior does not change unless rewards are actually applied to the desired behavior pattern or some reasonable approximation. It is not sufficient, for example, for nurses to tell trainers how important it is that rural mothers be praised for administering ORT. We must be certain that the nurses are in fact praising mothers, and that the mothers perceive the nurses' actions as praise or support.

This project may be one of the first efforts to use mass communication primarily to support positive, existing behaviors rather than extinguishing negative patterns or creating entirely new ones. It is also important to develop within the target audience the ability to discriminate between appropriate and inappropriate performance of a desired behavior. If health workers, for example, can be sensitized to the potential for critical mistakes in mixing a S/S solution, there is a greater chance they will remember correctly and avoid these mistakes when isolated in their rural communities.

To determine how these principles could be applied within the specific cultural context of The Gambia a four-month pre-program investigation was conducted. This "developmental investigation," is comprised of the following elements:

1. Interviews with groups of rural Gambian mothers to learn how they perceive and deal with diarrhea in their children, their general feeding and child care practices, and their use of radio and other media.

2. Direct, structured observation of rural Gambian villagers to corroborate the information provided by mothers in the group interviews.

3. Interviews with staff at health centers, dispensaries, and subdispensaries to measure the level of knowledge among health staff about diarrhea disease and to define the way it is currently being managed within the health system.

4. Rural mixing trials of S/S solutions.

5. Review of existing literature drawn from extensive work done at the Medical Research Council facilities in The Gambia.

6. Reception studies to determine the effective broadcast range of radio signals in rural areas throughout the country.

Detailed results of this investigation are described in Appendix E. The most salient findings, however, are summarized below.

1. An annual seasonality of diarrhea characterized by a long wet season during which rapidly dehydrating diarrhea is not a critical problem and a shorter dry season with significant, intense bouts of watery diarrhea.

2. The penetration of rural areas by health services, permitting effective widespread distribution of simple print materials and providing back-up for treating moderate dehydration.

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3. The recognition by rural people of "dryness" as a concept, used to describe general wasting, which results from malnutrition and which has symptoms similar to diarrheal dehydration.

4. The widespread confusion on how to mix simple sugar and salt solutions, often with ineffective and sometimes dangerous consequences.

5. The significant absence of print material in rural areas and a resulting inability of rural people to easily decipher visual messages.

6. A village society which gives women a disproportionate share of family work, which isolates women from easy access to radios, which separates mothers from children during the long and difficult wet season, and which is prejudicial to female participation in basic family decisions.

7. Despite the poor signal quality and relatively rudimentary programming now available on radio, the penetration of radio as a significant source of village information.

8. The lack of published studies on basic tribal and linguistic characteristics of major ethnic groups in the country.

SECTION II

CAMPAIGN ELEMENTS

A. OVERALL STRATEGY

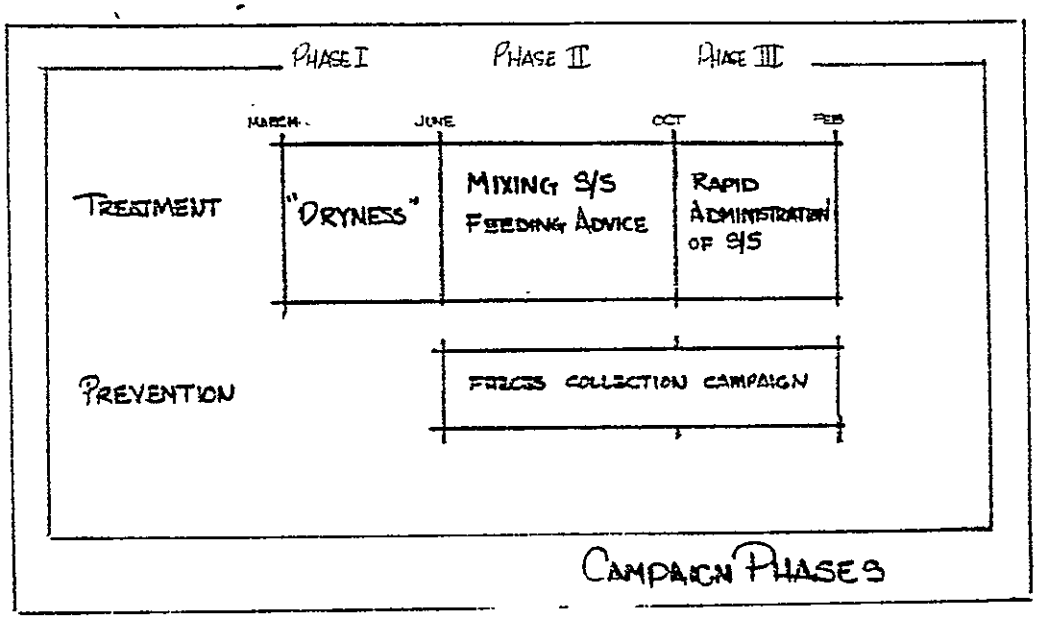
The proposed public education campaign on treatment and prevention of acute infant diarrhea in The Gambia will promote the preparation and administration of home mix (S/S) solution as an ORT by rural mothers in their homes during mild bouts of diarrhea. Rural mothers will be told that if the diarrhea becomes worse and "dryness" begins they should take their child to a fixed health facility or village health care worker. In these places, complete formula UNICEF packets will be administered.

Three basic treatment messages: how to properly mix S/S solution, how to correctly administer the solution, and where to seek help if the child gets worse, will be the central themes of the campaign. These themes will be supplemented by a single prevention focus, a daily faeces clean-up campaign within the family compound.

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

The primary target audience in the campaign will be rural mothers, grandmothers and older female siblings of children under five. A secondary audience will include primary health care workers such as: Health Inspectors (HI), Community Health Nurses (CHN), Health Peace Corp Volunteers (PCV), Leprosy Inspectors (LI), and Traditional Birth Attendants (TBA). Several other groups including rural fathers, physicians, and dresser/dispensers will receive a small number of specialized messages designed to help them reinforce and support the primary target audience in the correct application of ORT.

The campaign is a one-year broadcast effort divided into three sequential phases timed to coincide with the seasonal variations in diarrhea (see graph below).



Phase I, which preceeds the wet season diarrheal peak (characterized by prolonged, debilatating bouts of diarrhea), will emphasize the relationship between diarrhea, dryness and malnutrition, establishing the concept that "dryness," or dehydration, can be prevented through a special diet of S/S solution, breast milk, and adult cereals given to young children during bouts of diarrhea. Phase I will include an intensive face-to-face training program for rural health workers (HIs, CHNs, PCVs, LIs, and MCH team members) in the proper management of diarrhea including S/S solutions, UNICEF packets and intraveneous/intraperitoneal (IV/IP) therapy. These health workers will in turn train TBAs in 1000 villages in the proper mixing and administration of the S/S solution, leaving a red sash on the hut of the trained TBA as an identifying marker.

Phase II, which corresponds to the wet season diarrheal peak, will emphasize proper mixing of the S/S solution in the home along with casual administration and specific feeding advice. During this period a national rural lottery will be operated to publicize and popularize the S/S mixing instructions.

Phase III, which immediately precedes and coincides with the dry season diarrheal peak (characterized by short, intensive and rapidly dehydrating bouts of diarrhea), will reinforce the S/S mixing behavior stated in Phase II and will emphasize the rapid, systematic administration of the S/S solution from the on-set of the diarrheal episode in children under five.

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Prevention messages focusing on the daily collection and disposal of all faeces, animal and human, within the family compound will begin during Phase II as a complementary theme. They will link the general cleanliness extoled by Islamic teaching to the specific place of prayer -- the compound floor -- and advocate that one family member be assigned to clean the compound floor of faeces daily.

3. CONCEPTUAL RATIONALE

The overall campaign strategy emerges from a perception of five critical aspects:

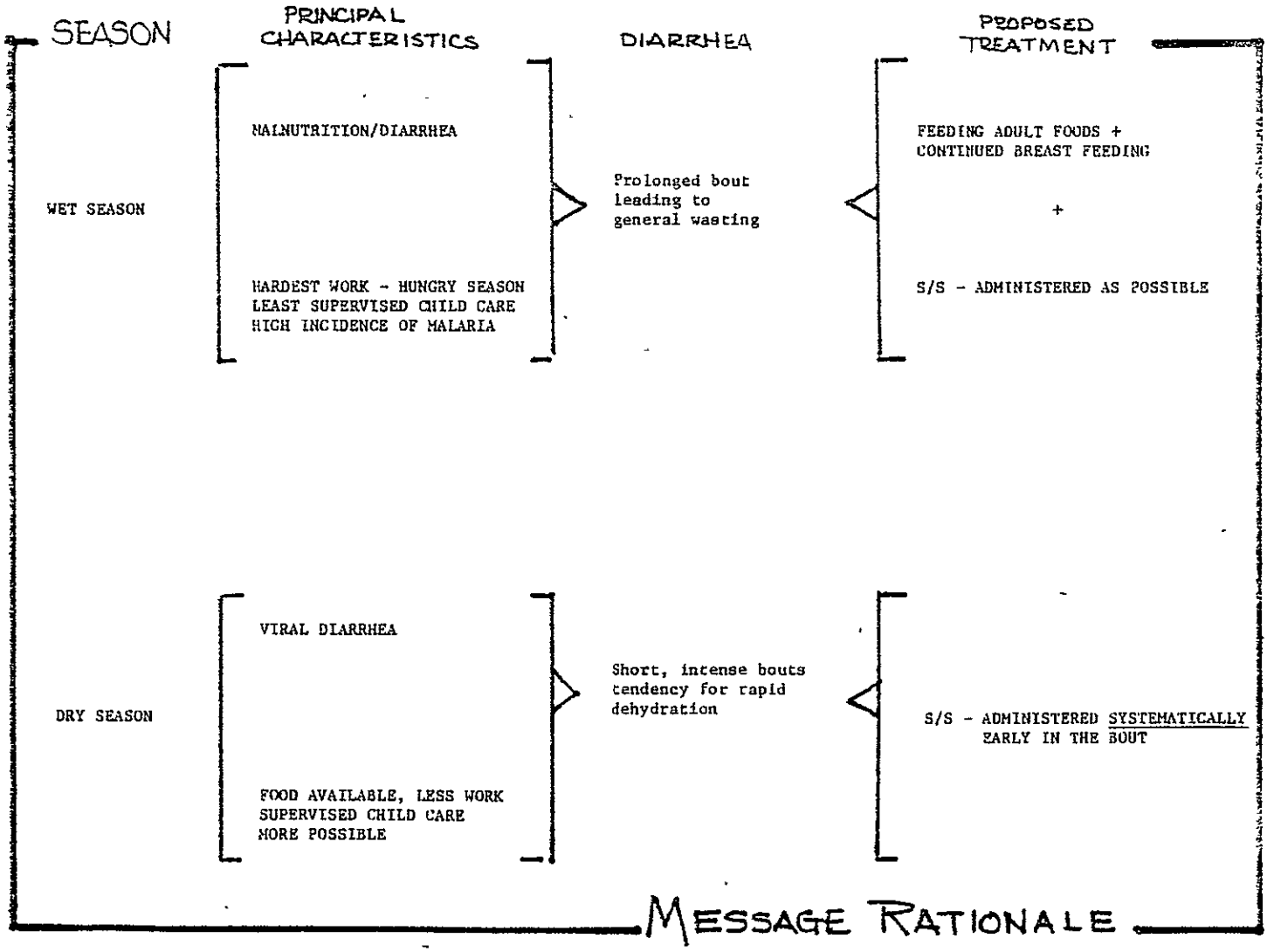
- the seasonality of diarrhea in The Gambia
- the national policy on management of acute diarrhea
- the structure of the family life in a closed compound
- the paucity of print materials
- the role of radio and the rural penetration of the health system

Seasonality of Diarrhea: Unlike Honduras, rapidly dehydrating (2-3 day) and watery diarrhea is not the principal cause of diarrhea-related death in The Gambia. During the prolonged wet season, diarrhea interacts with malnutrition, reduced food availability and poor child care practices to produce a general wasting, widely characterized as "dryness," which often leads to death in young children. Traditional home therapy (three-day administration of a litre volume per day), is impractical and probably not effective in this setting. A more reasonable intervention is an emphasis on diet which includes S/S solution (giving as much as a child will take), adult food (rather than watery paps) after an episode ends, and breast-feeding. This, coupled with a specific cue for severity (sunken eyes and general weakness) which leads the mother to outside help, appears a more reasonable treatment intervention during the wet season.

During the shorter dry season, watery diarrhea does appear to be a more common problem resulting in rapid dehydration and making oral therapy a more powerful positive intervention. This rationale is illustrated in the diagram on page II-4.

From a purely instructional view, the campaign first focuses on an idea already present in the target population--"dryness is dangerous"--then stresses what to do about "dryness"--administer properly mixed S/S solution early in an episode along with feeding advice. Once S/S mixing has been "mastered" during the wet season, the campaign stresses the intensive administration of S/S necesary during dry season watery diarrhea. The project has

been fortunate that diarrheal seasonality coincides with a practical, if somewhat hurried, production, training, and distribution schedule.



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National Management Policy: Lengthy deliberations including one WHO mission, regular contact with experts at MRC, and interchange with the Medical Advisory Board of the MM&HP project have given the Ministry of Health's leadership ample opportunity to consider every aspect of a national diarrheal management program. A number of possible management systems have been analysized, including home administration of pre-packaged ORT salts. Ultimately, the decision was made to develop a three-step treatment program relying on simple S/S in the home, UNICEF packets at fixed facilities, and IV/IP at selected fixed health facilities for severe dehydration. The overall regimen is summarized on the chart below, taken from the recently produced Health Worker's Manual for the Management of Acute Diarrhea in The Gambia, which constitutes the national policy on diarrheal management in The Gambia.

TREATMENT PLAN SUMMARY

NORMAL HYDRATION STATUS SUGAR-SALT MIXTURE	• For 24 hours, between breastfeeds, give: Child weighing LESS THAN 5 Kg (0-6 months old) — 200 ml (1 Julpearl bottle) Child weighing MORE THAN 5 Kg (6-18 months old) — 600 ml (2 Julpearl bottles) Child weighing MORE THAN 10 Kg (18 months and older) — 800 ml (3 Julpearl bottles)
MODERATE DEHYDRATION STATUS W.H.O. SOLUTION	• For the first 4-6 hours, give: 20 ml/Kg/Hour Reassess after 4-6 hours. If worsening go to Treatment Plan III If improving give 100 ml/Kg Overnight Reassess the next morning If Hydration Status is normal → T. Plan I If Moderate Dehydration persists → T. Plan II If Severe Dehydration develops → T. Plan III
SEVERE DEHYDRATION STATUS W.H.O. SOLUTION I.V. SOLUTION	• For the first hour, give: 20 ml/Kg of W.H.O. Solution (use nasogastric tube if necessary) Meanwhile, transfer to facility with I.P. or I.V. On arrival, begin I.P. rehydration • For the first hour, give intraperitoneally: 50 ml/Kg of I.V. Solution Reassess after one hour If improving → continue till rehydrated If worsening → transfer to I.V. • Immediately, give, intravenously 20 ml/Kg of I.V. Solution •Then, give: 20 ml/Kg/Hour till rehydrated With I.P. or I.V. Therapy, continue giving O.R.T. if the child can drink: 20 ml/Kg/Hour

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The rationale for the government's policy rests upon several facts. First, The Gambia has ten years of experience with S/S solutions. The concept, however, is widely recognized but poorly implemented at all levels of the health system. Secondly, resource projections indicate that the country is presently unable to import sufficient stocks of packets, or to produce sufficient quantities locally, to effectively supply a long-term, home-based packet system. At this time, the Ministry is reluctant to experiment with a system they feel is beyond their capacity to sustain. Finally, the prolonged bouts of wet season diarrhea do not require the same intense level of administration as widespread watery diarrhea. Properly prepared and administered S/S solution combined with slightly altered feeding practices may be the most effective intervention for dehydration during this season.

Given these priorities, the MM&HP project will support the Ministry's overall program in several critical ways; first, by popularizing a properly mixed S/S solution at the village level; second, by training health workers in the proper preparation and administration of UNICEF packets at fixed facilties; and finally, by promoting dietary practices which may potentially effect the wet season wasting of young children.

Rural Family Life: The structure of rural family life around a single, enclosed compound which includes numerous mothers suggests the possibility that successful innovation by one mother in a compound may spread to other mothers in that compound. A disturbing lack of communication among mothers within a compound has been reported by some experts, however. This problem is compounded by the fact that female access to radio is severely limited. Additionally, child care is often delegated to older female siblings and grandmothers, frustrating the project's ability to focus on mothers alone as the principal target audience. To meet these realities, a strategy has been developed which uses radio to mobilize rural females. The intervention will cut across female age differences and provides a practical justification for female access to the radio, at least during selected listening times. A radio lottery, open only to females and limited to one winner per compound has been devised. The main prize, an expensive radio/cassette recorder, will be awarded during specially prepared radio programs which will also teach how to mix S/S solutions, why these solutions are important, and how to use the drawings on the "lottery ticket" as a reminder of how to mix the S/S solution.

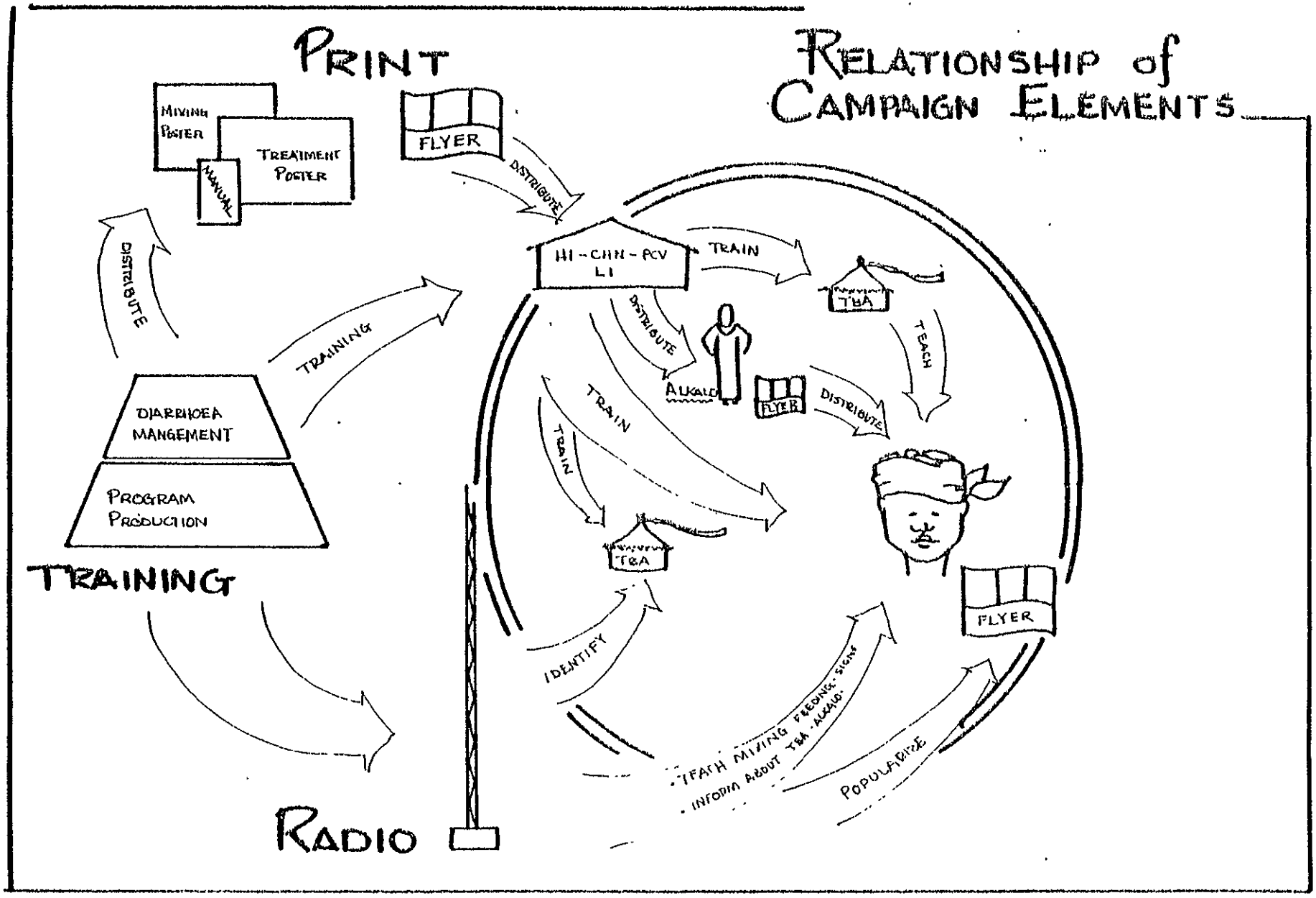
Paucity of Print Materials: Visits to rural villages demonstrated the paucity of print materials in rural villages. Literacy is extremely low. Arabic seems to be the only written language which is reliably read by a small but dispersed number of rural Gambians. Equally significant is the absence of graphic images in rural villages. Publicity, photographs, posters, and drawings are almost totally absent from homes, meeting places, and stores. Additionally there is little existing information on

the level of visual literacy in the countryside, making the rapid creation of effective visual messages extremely difficult. This was one of the important reasons that 1) limited print material was included in the campaign and 2) the lottery/flyer was designed in such a way that radio could be used to"teach" the meaning of each picture. Essentially, the project team is somewhat pessimistic about our ability to develop a visual which will effectively convey the mixing message without direct verbal support.

Penetration of the Health System: The mobility of rural health workers in The Gambia suggests that they can be an effective distribution vehicle for specific mixing instructions and for the lottery/flyer. The workers are both widely accepted and available through regular "treks" to surrounding villages. The large number of villages in The Gambia, estimated at some 2000, and the concentration of the rural population in these village clusters make it possible in the time availabe to provide minimal face-to-face support through the TBAs in at least half of the total villages; perhaps reaching as much as two-thirds of the population.

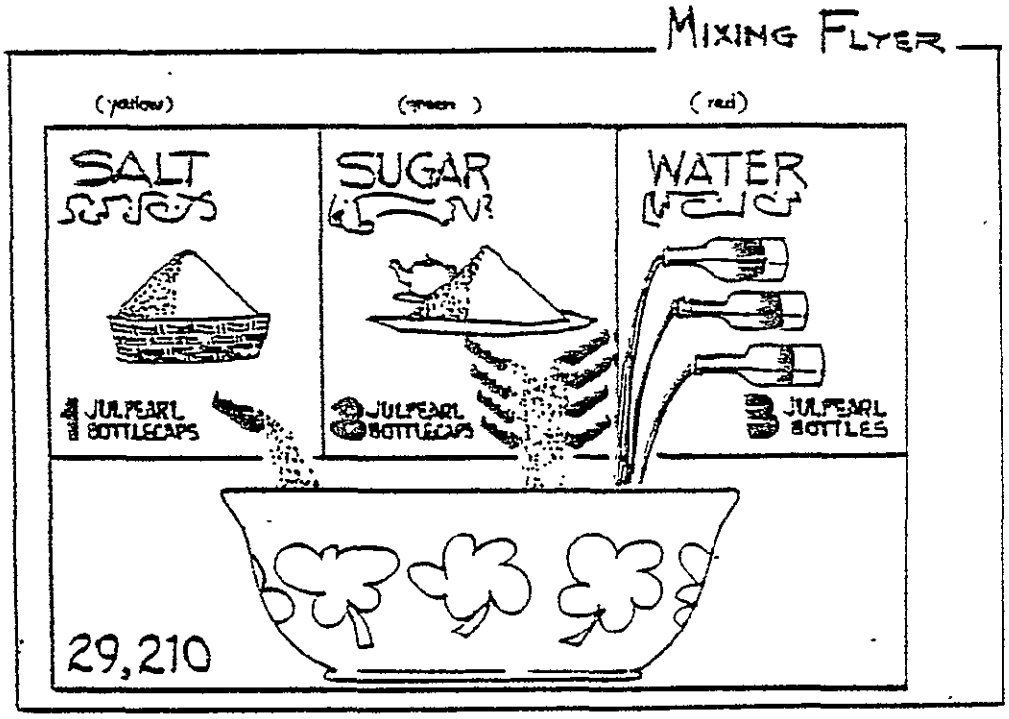
C. THE CAMPAIGN STRATEGY

The following diagram illustrates how the three principal components of the program relate to form a single, cohesive campaign.


RELATIONSHIP of CAMPAIGN ELEMENTS
PRINT
MIXING POSTER
TREATMENT POSTER
MANUAL
FLYER
DISTRIBUTE
DISTRIBUTE
TRAINING
DIARRHOEA MANGEMENT
PROGRAM PRODUCTION
TRAINING
RADIO
HI - CHW - PCV
LI
TRAIN
TBA
TEACH
DISTRIBUTE
ALKALO
FLYER
DISTRIBUTE
TRAIN
TRAIN
TBA
IDENTIFY
FLYER
TEACH MIXING PROCEDURE, SIGNS
INFORM ABOUT TBA, ALKALO.
POPULARIZE

Training will be provided to the health workers through eight three-day workshops. During these workshops a flyer carrying color-coded mixing instructions will be handed-out for mass distribution to rural mothers through the health workers. In addition, health workers will receive a large treatment poster summarizing the critical treatment steps, a manual providing additional management details and a supply of red sashes to identify the TBAs who they subsequently train. Upon return to their health centers and dispensaries the health workers will travel to pre-determined villages and identify a receptive local TBA worker who they will train in the S/S mixing process. Health workers will leave the red sash on the roof of the TBA's home. They will also distribute a stock of the mixing flyers to the TBA.

After a period of several weeks, permiting the TBAs to be contacted and trained, radio broadcasts will begin announcing a national rural lottery focusing on women with children under five as the primary participants. The color-coded mixing flyer will act as the lottery ticket. Each flyer will be numbered in bold type at the bottom (see below).



By late June the radio will begin the lottery announcements informing mothers when to listen to the lottery program and to have their lottery flyer with them to determine if they are a winner. During the award program, radio will teach mothers to read and decipher the flyer. Using the color-coded sections, a slogan will be developed to relate color, volume, and substance.

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Example:

- Yellow square, 1 capful, salt
- Orange square, 8 capfuls, sugar
- Red square, 3 bottles full, water

At the same time radio broadcasts will identify the red sash as a place to go for help if a mother forgets the mixing instructions. Radio will also stress that a special diet for dryness, S/S plus adult cereals and breast milk, is a way to help prevent "dryness." The mothers cue to prepare the "dryness diet" is the episode of diarrhea itself. Two signs, dark sunken eyes and weakness, are cues to seek help because "the dryness is too strong."

Radio will play several key roles. It will identify the TBAs, popularize the lottery, teach the meaning of the flyer, and carry the primary messages on when to seek help, and what to feed during diarrhea.

Print materials will remind health workers of their key treatment behaviors and, through the lottery ticket/flyer, generate excitment and provide concrete instruction on the S/S mixing regimen.

Training will create the basic face-to-face support needed to ensure success. First generation training of health workers will standarize the process of diarrheal management in health centers and train health workers to teach S/S mixing to TBAs. Second generation training of TBAs will provide a local level guide and support for mothers unsure of what they have heard on the radio or how to read the flyer.

In addition to the focus on diarrheal management, a series of special radio messages will be developed around the theme of cleanliness during prayer. These messages will focus on the need to regularly (once a day) clean up faeces of all kinds within the family compound. The physical boundaries represented by the walled or fenced family compounds make adoption of this message feasible.

The presence of faeces, both human and animal, is one of the principal sources of bacterial contamination and a primary link in the infection process. While latrines are quiet common, they are reserved almost exclusively for adults, leaving both child and animal faeces widely dispersed within the compound. The strong Muslim tradition of cleanliness and the association of the floor as a place of prayer appear reasonable foci around which to build the message theme. In addition to radio programs, local leaders will be involved in discussing the clean-up during bantaba (male conversation/decision) groups, building upon a strong tradition of "obedience" to stimulate compliance with the campaign.

D. PRINCIPLE CAMPAIGN OBJECTIVES

The principle campaign objectives, expressed in measurable values are described below. These quantifiable goals have been identified as behavioral targets rather than changes in health status. This reflects a certain pessimism about our ability to exclude secular factors as casual agents for any health status change over such a short period of time. In reality we are unsure what levels of compliance are feasible in a campaign influenced by such complex variables as exist in The Gambia. We do believe, however, that the program will impact significantly in each of the following areas.

1. 1000 villages will have at least one resident volunteer, identified by a distinctive red flag, who is able to correctly mix a S/S solution as measured by an acceptable sodium level of 60-110 m/equiv.

2. All HIs, CHNs, Health PCVs and LIs will be able to:

   - Properly mix a S/S solution as measured by the sodium level criterion.

   - Determine when a child is listless, can't sit up, is weak, and has sunken eyes; and subsequently administer a complete formula OR packet properly.

   - Properly mix an OR packet as measured by the sodium level criterion.

   - Properly administer an OR packet in the follow way:

     - If a child has moderately sunken eyes, give him/her 20 ml/kg of WHO formula for 4-6 hours;
     - Reassess the child's status after 4-6 hours. If normal, continue treatments with S/S solution; if same, or improved, continue 20 ml/kg of WHO formula for another 4-6 hours; If worse and very limp, give 20 ml/kg of WHO formula while transferring child to a facility with IP or IV, if possible.

3. At least one mother with a child under five in 20% of all compounds will be able to properly mix a S/S solution as measured by the sodium level criterion.

4. The number of mothers with children under five who feed adult foods (solid rice and millet) to children with diarrhea will increase by 10%.

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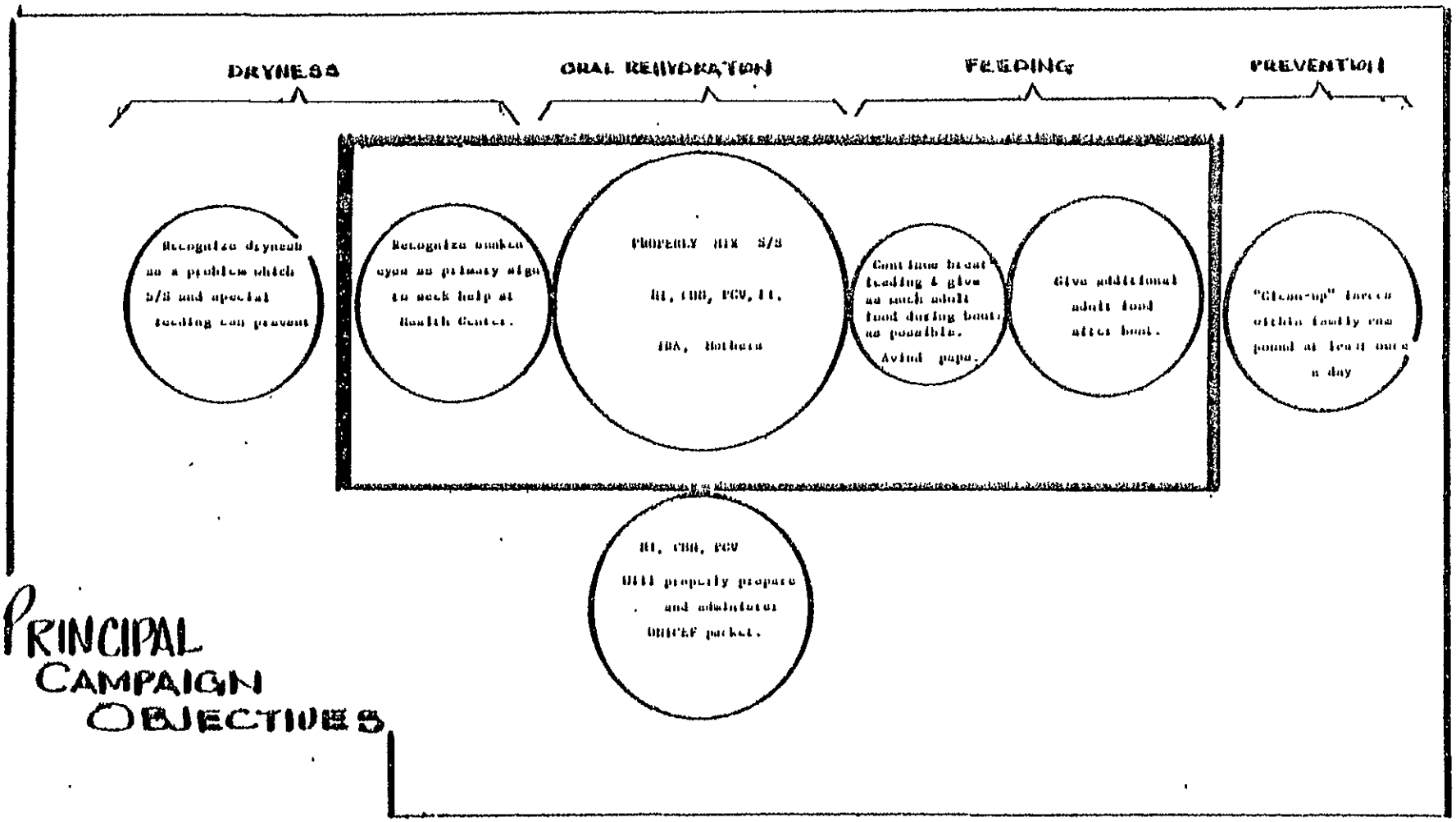
5. The number of mothers with children under five who give additional food to a child recovering from diarrhea for at least two days after the bout will increase by 10%.

6. When asked, at least one mother with a child under five in 30% of the compounds will be able to say that:

   - she believes a child under five with diarrhea needs S/S solution and adult food
   - S/S solution and adult food can help prevent dryness
   - dryness is especially dangerous in children under five (young children)
   - a red sash identifies a person in the village who knows how to mix the S/S solution properly
   - sunken eyes are a sign of dryness, which requires that she take her child to a health center
   - that faeces of all kinds should be cleaned from the family compound at least once a day.

Expressed graphically the principal goals can be divided into seven areas. The boxed area below represents those behaviors of central concern, while the three sections outside the box are behavioral areas where a greater degree of noncompliance is acceptable.



PRINCIPAL CAMPAIGN OBJECTIVES

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E. SEGMENTATION OF TARGET AUDIENCE BY CAMPAIGN THEMES

The objectives described above translate into four general campaign themes and each theme has been sub-divided into specific message themes as follows:

PRINCIPAL CAMPAIGN THEMES

MALNUTRITION, DEHYDRATION (DRYNESS)

Dryness is most dangerous in small malnourished children with diarrhea.

- Three signes of dryness are especially important

  A. DIARRHEA for more than 3 days
  B. SUNKEN EYES
  C. WEAK, LIMP, LISTLESS CHILD

- If a child gets sunken eyes he needs special care - take him to a health center right away.

ORAL REHYDRATION

- Mix S/S - 1 Julpearl cap salt, 8 Julpearl caps sugar, 3 Julpearl bottles clean water
- Give all your child will take slowly - all day long. Make new receipt each day.
- (During dry season) Be sure to give one litre of S/S solution a day as soon as child starts having diarrhea.
- Go to TBA with red sash if you forget how to mix S/S
- (For Health Worker)

  Prepare packet in 1 litre of clean water. (weighing child) (ml measure)

  Monitor and manage moderate and severe dehydration

FEEDING

- Mothers should start giving adult food when baby is 5 months old.
- Mothers should give some solid rice (millet) when the baby is sick, even if the baby doesn't like it.
- Paps are not as good a food for child as adult foods.
- When baby recovers from diarrhea he needs extra food to make him powerful again. Give him adult food for several days.

PREVENTION

- To be clean is our obligation to God.
- It is an affront to God to pray on dirty floors.
- Faeces of all kinds are not clean. they cause disease
- It is our duty to keep the faeces away from small children and from food.
- Make someone in the family responsible to collect and bury faeces at least once a day.

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These themes have been subsequently segmented by audience type.

- Rural mothers with children under five, older women and female siblings.
- First generation health workers (HIs, CHNs, PCVs, LIs, and MCH teams).
- Second generation health workers (TBAs, D/Ds, Ns, ANs).
- Rural opinion leaders (alkalos, fathers, Imans).

(Generation, as used here, refers to the source of training a health worker receives. First generation health workers are trained directly by project staff, while second generation health workers are trained by first generation trainees.)

The rationale for the proposed audience segmentation is quite similar to that used in Honduras. Children under five are at greatest risk. Their mothers continue to be the central figure in their lives, although the role of siblings and older compound women is an important one, particulary during the wet season when able-bodied women are consumed by agricultural chores. For this reason, a radio strategy has been developed which potentially impacts on all women. Messages will not be directed exclusively at mothers, but will adopt a tone which influences older women as well. It is hoped that an event as dramatic and novel as a lottery will cut across age groups and bring older siblings, child-bearing women, and older women together around the radio.

Health workers have been segmented into two groups based upon the potential impact on villages which surround the fixed facilities in which they are based. Essentially, the most mobile members of the rural health worker team have been selected as first generation trainees. They have been given the special role of teaching TBA's how to mix and administer the S/S solution. The TBAs were singled out as the most likely village contact because of their acceptance by village people and their ubiguity in rural areas. They are relatively easy to identify and amenable to involvement in the program.

Finally, the key opinion leaders--alkalos, fathers, and Imans--represent a pervasive power structure in the rural village. As "gate-keepers" of village behavior, their support is critical, particularly for the prevention campaign which depends heavily upon religious and obedience themes.

The following chart illustrates how the campaign themes have been segmented by target audience.

MESSAGE EMPHASIS BY TARGET AUDIENCE

		PRIMARY AUDIENCE	SEC. AUDIENCE	TER. AUDIENCE
DRYNESS		5	5	3
ORAL THERAPY	S/S	1	1	1
	SIGNS	2	3	3
	PACKET	—	2	
FEEDING		3	4	4
PREVENTION		4	6	2

1 - MOST IMPORTANT
5 - LEAST IMPORTANT

Other audiences were also included. Physicians, for example, will recieve a specially prepared packet of readings along with a letter from the Ministry of Health informing them of the new diarrheal management program and enlisting their assistance. They will receive two copies of the treatment poster for their offices or dispensaries.

F. MESSAGE PHASES

The graph on page II-17 illustrates how seasonal peaks, campaign messages and campaign elements are related over time. The radio messages are scheduled to begin in April. February and March will focus on program production and pre-testing, first generation training, and print materials preparation. Print materials and the red sashes will be distributed through the second generation training while radio is stressing the cluster of enabling behaviors around "dryness" and its relationship to diarrhea and feeding. By mid-June the bulk of the second generation training will have been completed and the widescale lottery promotion will begin on radio. From June through October mixing and feeding advice will dominate with prevention messages beginning in mid-August. During the November and December period new radio programs will be prepared around systematic mixing instruction, changing the focus to dry season diarrhea and intensive application of the S/S solution. During the dry season peak and through March, administration, along with additional mixing messages, will be stressed.

OVERALL CAMPAIGN STRUCTURE

PHASE I					PHASE II						PHASE III		
DRY SEASON Short, intense dehydrating bouts					WET SEASON Prolonged, less intense interaction with malnutrition						DRY SEASON Short, intense dehydrating bouts		
JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH

	campaign begins DEHYDRATION/ MALNUTRITION	FEEDING & S/S	DEHYDRATION & S/S
PRINCIPAL CAMPAIGN THEMES	• Identify dryness as problem • Dryness is especially dangerous in children under 2 • Introd. S/S packets to HH	• Feed children more often • Feed children adult food during bouts as possible • S/S emphasis on mixing skill and giving as much as child will take early in an episode. Regular faeces clean-up in family compound	• Dryness kills • Signs of Dehydration • Dehydration especially dangerous in children under 2 • S/S - emphasis on administration of at least one bottle a day; make fresh every day

TRAINING				
CHN, NM, PCV, HI, LI	Primary training	Follow-up	Retraining	
D/D, AUX, ORDELIES		Secondary training	Follow up	Retraining
TBA			Follow-up	Retraining

PRINT			
H.W. POSTERS LOTTERY FLYER SASH IDENTIFIER LOTTERY PRIZES	Distribution (through training for CHN/NM/PCV)	Pretesting new graphics	Printing

RADIO									
MAGAZINE PROG.	Pilots pretesting	Final production	Airing	Pilots pretesting	Airing	Airing	Airing	Pilots pretesting	Airing
MINI-PROGRAMS									
SPOTS									

This phasing allows program planners to stress the critical skills sequentially. Mixing will be first. It is perceived as the most difficult behavior to modify because 1) it is already being done incorrectly by so many people, 2) its past use has not produced dramatic positive effects perceived by the target audience, 3) it involves correctly associating three different volumes and substances, 4) all ingredients have to be supplied by the mother, and 5) it has little inherent appeal; there is no color, it has a salty, unappealing taste, and it lacks face-value potency. Intensive, systematic administration need not be pushed during the wet season, but should wait until the dry season watery diarrhea is more common. This coincidence allows us to spend more time on the most difficult task (mixing) and to focus almost exclusively on it for a considerable portion of the entire broadcast time.

G. INSTRUCTIONAL ELEMENTS

The proposed campaign is composed of three instructional elements; radio, print, and face-to-face training. These elements act together to inform, train, provoke initial trial, stimulate interpersonal opinion leadership and reward the various target groups for acceptable compliance. In the following graph the relative importance of each element as related to campaign themes is identified. It is clear that S/S solution mixing will receive the most sustained and comprehensive emphasis. Major radio programs, print material and health worker training will be focused on this critical set of behaviors.

MESSAGE EMPHASIS by CAMPAIGN MEDIA

		RADIO			PRINT				TRAINING	
		SPOTS	MINI-PROG	MAGAZINE	FLYER	MIXING POSTER	TREATMENT POSTER	PHYSICIAN'S MAILER	1st GENERATION	2nd GENERATION
DRYNESS		✓	✓	✓				✓	✓	✓
ORAL THERAPY	S/S	✓	(✓)	(✓)	(✓)	(✓)	(✓)	✓	(✓)	(✓)
	SIGNS	(✓)	✓	✓			(✓)	(✓)	(✓)	✓
	PACKET						(✓)	(✓)	(✓)	
FEEDING		✓	✓	✓				✓	✓	✓
PREVENTION		(✓)	(✓)	✓					✓	

✓ EMPHASIS

(✓) PRIMARY EMPHASIS

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1. Radio

Radio programming will play a particularly critical role in the overall campaign. It will have the primary burden of teaching how to use the the color-coded sections of the S/S solution mixing flyer to identify and popularize the visual mixing instructions.

Eight message clusters have been identified for radio. Clusters I through V provide direct information on preparation and administration of the S/S solution. Clusters VI through VII are used to popularize key aspects of the campaign; the lottery and the TBA depot. Cluster VIII focuses on faeces clean-up. Each of the eight message clusters are described below:

RADIO MESSAGE CLUSTERS

I. Danger of Diarrhea

Dryness is a dangerous problem in diarrhea and malnutrition. The greatest danger is with young children under two.

II. Diet for Dryness

- Prevent dryness with a special diet when children get dehydrated .
- The diet consists of adult food (solid rice and millet) and a special S/S tea.
- Give as much adult food and S/S tea as the child will take, and keep breast-feeding during diarrhea.
- Pads are not as good as adult foods to give the child strength to fight the diarrhea.
- When diarrhea stops and child wants to eat, give him extra adult food for one or two days. This gives him extra strength and power.
- Learn to make S/S tea on the radio or from your health worker or from the "lady with the red sash".
- Don't store the S/S tea for more than one day. Make a new solution fresh everyday.
- Give the child a lot of the tea and use what is left to cook with his food.
- Make a new solution fresh every day.

III. Mixing S/S Solution

- Get 1 Julpearl bottle, 1 bottle cap, some sugar, salt, and the cleanest water you can find.
- Mix 3 Julpearl bottles of water, 1 cap of salt, and 8 caps of sugar together to make the tea.
- Be sure to make a powder of the sugar if you use sugar cubes.
- When you measure the S/S, use a "chew stick" to level the cap. Don't use a heaping cap; that makes the tea too strong for the baby.
- Give the child as much as he will drink. Give it slowly with a spoon, or the child might vomit. Give a lot, as much as possible, and don't give up if the child vomits a bit; continue, but go a bit slower.

IV. Seek Help

If your child has diarrhea for more than five days and is getting sunken eyes, then dryness is taking over; take the child immediately to a health center.

Best Available Document

V. Dry Season Message

- During the dry season dryness comes very to the child quickly, the S/S tea must be given in a special way. During the dry season it is important to give at least one Julpearl bottle a day and more if the child is more than one year old.
- Make a new solution fresh every day and be sure and give at least one Julpearl bottle a day for three days.
- If your child starts to get listless and has sunken eyes, be sure to take him to a health center.

VI. Lottery Identification

- The Medical and Health Department is offering a special lottery for rural areas.
- Your ticket/flyer is available now -- free -- from your local health worker.
- You can win wonderful prizes--a radio, a tee shirt, or a special one-litre cup--by listening to Radio Gambia on (day) at (time).
- Keep your ticket in your home and have it with you when you listen to the radio.
- Many people will have a chance to win a wonderful prize.
- The ticket will be given to all those who contact the health worker first, one ticket per compound.
- This ticket also teaches you how to mix the special S/S tea. Listen to the radio on (day) at (time) to learn how to mix the S/S tea and to see if you are one of the lucky winners.

VII. Depot Identification

- The Medical and Health Department believes that the S/S tea is so important that we have trained a group of special helpers and given them a big red sash so that you can find them easily in you village.
- Go to the compound with the red sash if you forget how to make the S/S tea. There you can find help if you forget.
- If you don't have a flag in your community, go to your health workers or PCV for assistance.

VIII. Faeces Clean-up

- We all know that cleanliness is the will of God.
- It is hard for us to be clean all the time, we work hard and have little. but where we pray, inside our compound, must be kept clean for God.
- Faeces are the dirtiest of all dirt.
- They bring disease, make our children dry and wither, and it offends God.
- It is our duty to name one member of the family to clean the floor of the compound at least once a day, so that when we pray the ground is clean of all faeces.
- All faeces (human and animal) must be kept away from where we cook, where we eat, and where we pray.

Three kinds of radio programming will be used, spots, mini programs, and magazine programs. All programs will be broadcast in both Mandinka and Wollof, with special programming also included in English and French. The following schedule illustrates the maximum number of each program type per month by principal broadcast language.

Spots (3 minutes)

- Wollof (four different programs) -4 weeks x 12 transmissions per week = 48 transmissions per month
- Mandinka (four different programs) 4 weeks x 12 transmissions per week = 48 transmissions per month
- Total Airtime: 96 transmissions x 3 min = 288 minutes or 4.8 hours per month

Mini-Programs

- Wollof (four different programs) 4 weeks x 2 transmissions per week = 8 transmissions per month
- Mandinka (four different programs) 4 weeks x 2 transmissions per week = 8 transmissions per month
- Total Airtime: 16 transmissions x 10 minutes = 160 minutes or 2 hours per month

Magazine Programs

- Wollof (four different programs) 4 weeks x 2 transmissions per week = 8 transmissions per month
- Mandinka (four different programs) 4 weeks x 2 transmissions per week = 8 transmissions per month
- Total Airtime: 16 transmissions x 30 minutes = 480 minutes or 8 hours per month

At present it is proposed that only one broadcast channel, Radio Gambia, be used. While Radio Syd has a significant following in the Banjul area, its signal does not appear to penetrate the interior of the country. The results of future listenership studies may alter this division.

The chart on page II-23 illustrates the distribution of program content by program type over the first year of broadcasts. The letters A, B, and C represent the three types of broadcasts: spot, mini-programs and magazine programs, respectively, and are followed by a number (1-4) indicating the number of different programs of that type broadcast each month.

The chart on page II-24 shows a typical distribution pattern for programming during an intensive month of broadcasting. The letters again indicate the type of program.

Each number represents a different program. Numbers are repeated to show the frequency that individual programs would be repeated during a given month.

It is anticipated that all programs will be produced at Radio Gambia's facilities, although back-up facilities are available at Radio Syd should production time be impossible to get at Radio Gambia. The personnel of the MOH Health Education Unit, in collaboration with the personnel of the Rural Broadcasting Unit of Radio Gambia, will be responsible for all program production.

The project will provide consultants to train three individuals in program design, script writing, and final program production. One consultant, Ms. Esta de Fossard will work with local producers for two weeks in March to produce the programs scheduled for April, May, and June. A full-scale workshop scheduled for June under the AID-sponsored "Studies in Facilitating Learning" contract with the Academy, will provide additional assistance in the preparation of programs for June, July, August, and September. The remaining programs will be developed after an analysis of the first field monitoring information.

2. Print Materials

Six print materials will be developed for the initial two phases of the campaign. The graph on page II-25 lists each material, and describes the number of distribution points plus the number of each material to be distributed by unit.

RADIO PROGRAM SCHEDULE

MESSAGE CLUSTER	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH
DANGERS of DRYNESS	B4	B4	B1									
DIET for DRYNESS	A4	A4	B3 A1 C1	B3 A1 C1	B3 A2	A1	A1	A2				
PREPARING S/S sol. (LOTTERY)					C4 A2	C4 A3	C4 A3			A2	A1	A1
SEEK HELP at HEALTH CENTER												
DRY SEASON MESSAGES								A2 B2	A4 B2	A2 B3 C2	A3 B3 C2	A3 B3 C2
PUBLICIZE LOTTERY			A3 C1	A3 C3								
IDENTIFY TBA w/ RED SASHA												
FAECES CAMPAIGN				B1	B1	B1	B1	B1	B1	B1	B1	B1
TOTAL	A4 B4	A4 B4	A4 B4 C2	A4 B4 C4	A4 B4 C4	A4 B4 C4	A4 B1 C4	A4 B3	A4 B3	A4 B4 C2	A4 B4 C2	A4 B4 C2

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Monthly Program Distribution

Prog. Type	M	T	W	Th	F	S	S
A	4	1 2	2 4	2 3	3 4	3 1	1
B	1			3			
C		1				3	

Prog. Type	M	T	W	Th	F	S	S
A	4	1 2	2 4	2 3	3 4	3 1	1
B	2			4			
C		2				4	

Prog. Type	M	T	W	Th	F	S	S
A	4	1 2	2 4	2 3	3 4	3 1	1
B	3			2			
C		3				2	

Prog. Type	M	T	W	Th	F	S	S
A	4	1 2	2 4	2 3	3 4	3 1	1
B	4			1			
C		4				1	

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PRINT MATERIAL: PRODUCTION & DISTRIBUTION

PRINT MATERIAL	HEALTH CENTERS 11	OTHER H. PCV 3	DISPENSARIES 14	SUB. DISPEN. 54	LEPROSY INSP. 15	MCH TEAM	PHCW 36	TOTAL PRINTED / TOTAL NEEDED
MIXING FLYER	2000 / 22,000	1000 / 3000			1000 / 15,000		100 / 3600	50,000
MIXING POSTER	100 / 1100	10 / 30	5 / 70			50	5 / 180	2000 / 1100
TREATMENT POSTER	2 / 22	1 / 3	1 / 14	1 / 54	1 / 15	50	1 / 36	500 / 194
TREATMENT MANUAL	3 / 33	1 / 3	2 / 14	1 / 54	1 / 15	20	1 / 36	500 / 175
RED SASH	50 / 550	20 / 60			50 / 750	200	10 / 360	2000
PHYSICIAN'S MAILER	5 / 55							55

The Ministry's Treatment Manual (see Appendix A) will be widely distributed as the principle reference guide for health workers and professionals at all levels of the health system. It contains more detailed instruction on all aspects of the program including advice to mothers on recovery and emergency behavior.

A long red sash will be prepared and distributed as the key identifier for Traditional Birth Attendants trained as expert S/S solution mixers. The sash will act as a visual aid which radio broadcasts can reference and use to guide mothers to TBA assistance.

Finally a physician's mailer will be developed which includes a letter from the Chief Medical Officer, copies of the Ministry's Treatment Manual, the Population Reports issue on Oral Rehydration Therapy, the WHO guidelines for Diarrheal Management and an article examing the role of antibiotics in diarrheal management. These will be bound in a three ring notebook and delivered to all physycians in The Gambia along with a copy of the Treatment Poster. The letter accompanying the package will stress the new roles for oral therapy in the government's program and solicit the physician's cooperation in giving the following key advice.

- Continue breast-feeding during diarrhea.
- Promote solid foods as soon after the episode as possible.
- Avoid antibiotics as routine treatment.
- Use ORT in most cases of moderate to severe dehydration.

The materials described in this section will be distributed in three ways. Those materials being used at the health centers (the two posters and the manual) will be distributed during the training sessions scheduled for March-June. At the same time the flyer and red sash will be given to participants for distribution through TBAs and directly during regular village visits. A schedule of village visits will be worked out with each health worker at the end of the training period so that duplicate visits to communities can be avoided.

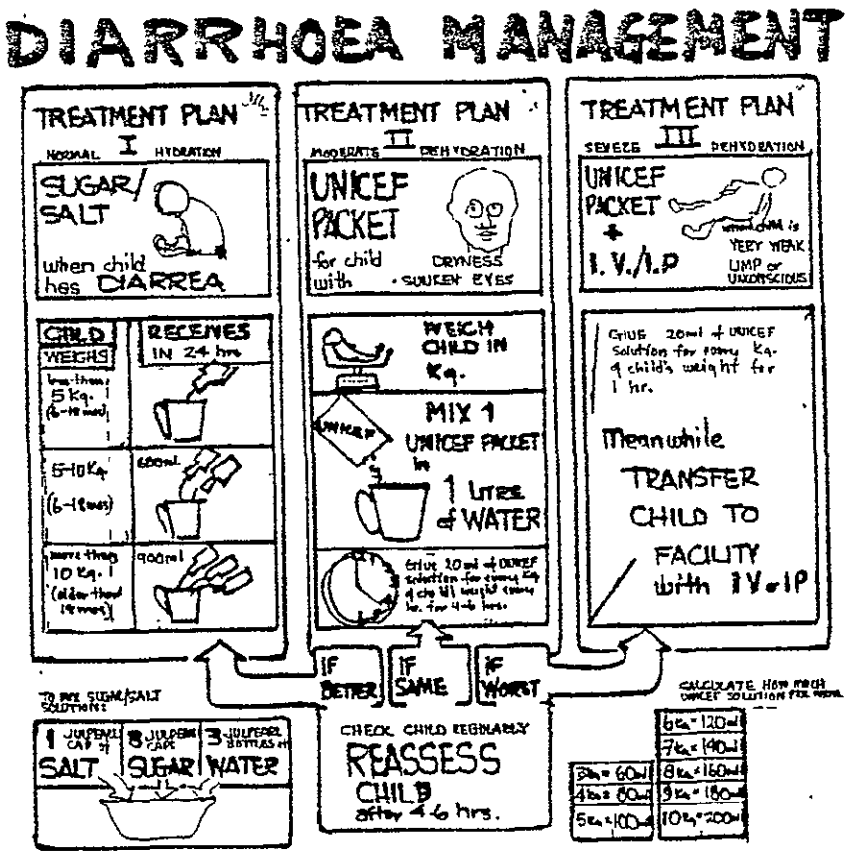
The radio will announce the flyer's availability from health centers. Mothers will be told to pick up their lottery tickets, one to a compound, free, from these distribution points. In addition, the MCH team and Leprosy Inspectors will visit communities not being adequately served by the health center.

The physician's mailer will be delivered directly by project staff to the local medical association and distributed through their regular channels.

The mixing flyer/lottery ticket illustrated on page II-9 is the single most critical print material being developed. The two-sided single sheet will carry two important instructional messages, the S/S solution mixing instructions and the indication to level the bottlecap when measuring the S/S solution. The instructions are color-coded so that radio messages can more effectively describe each element of the mixing process. The flyer also carries a lottery number (in the lower left hand corner) which provides the critical motivation for rural mothers to acquire the flyer and listen to the radio programs.

A large version of the flyer will be printed as a Mixing Poster and distributed to all health centers and given to as many Traditional Birth Attendants as possible. Several copies of the same poster will be placed together on a common wall within the health facility to increase its visual impact.

A treatment poster (see below) has been prepared for the fixed health facilities which summarizes the key points suggested in the Ministry's treatment manual. This poster is designed as an agile reminder of key points in all three rehydration regimens and will be distributed to private physicians as well as government facilities.



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Most print materials will be produced locally at the Book Production Unit of the Ministry of Education. Working with the Health Education staff, they will design and pre-test the initial print materials. The treatment poster will be printed in the United States due to the local impossibility of large-format printing. The mixing poster will be printed in Dakar, allowing the Book Production Unit to test the reliability and quality of regional large-format printing capacity.

3. **Training**

The training segment of the program takes place at three levels, first generation training of selected health workers by project staff, second generation training by first generation trainees of their fellow health workers and of selected TBAs in 1000 rural communities, and direct orientation of rural mothers by TBAs and health workers on mixing S/S solution in the home. The basic training objectives have been described on page II-11 of the plan. The following schedule illustrates how these objectives will be achieved over time.

TRAINING SCHEDULE for PRIMARY Health Workers

	MARCH	APRIL		MAY		JUNE		TOTAL
New PCV's	10							10
HI, CHN, PCV	5	15	15	15	15	15	15	95
L.I							15	15
MCH Team	5							5
PHCW	18	6		6		6		36
TOTAL								161

An initial training design will be tested during March on groups of trainees composed of new PCV's, Health Inspectors from the Banjul areas, MCH team members and the new group of PHCWs now in training. In April, a series of five-day workshops for 15 individuals per session will be conducted. The workshops will bring together HIs, CHNs, and PCVs from the same region for an intensive orientation to diarrheal management. Each day is structured in the following way:

- A rationale for the target behavior is provided.
- The behavior is modeled expertly by a trainer.

- Participants practice the behavior.
- A discrimination game allows participants to learn differences between correct and incorrect performance, especially on key areas where critical mistakes are likely.
- Intensive individual practice (aimed at greater fluency and skill) in performing the behavior and gradually performing the behavior under increasingly realistic conditions.
- Review of program rationale and the discussion of village constraints to performing the behavior under actual field conditions.
- Self-corrected testing and review of principle knowledge and skills to be acquired.

The first two days of the workshop will focus on broad health education materials while the last three days will be focused exclusively on diarrheal disease management. Day 3 will emphasize S/S solution mixing and administration. Day 4 will focus on moderate and severe dehydration management with UNICEF packets and Day 5 will stress teaching S/S solution mixing to TBAs and rural mothers. A tentative training design has been included in Appendix C.

The training approach being proposed is illustrated in the following diagram.

BASIC TRAINING CONTENT & APPROACH

	DAY 3	DAY 4	DAY 5
OBJECTIVE	S/S	PACKET	TEACHING S/S
APPROACH	• Model Mixing & Administration Skills • Discrimination Game • Small Group Practice		• Role Playing • Individual Practice • Comprehensive Review • Self-Corrected Test • Planning to return to village
KEY IDEAS	• Prevents Dryness • Feeding/Breastfeeding • Wet Season/Dry Season Difference	• Dehydrates • Give S/S after improvement • Continue Feeding/Breastfeeding	
REVIEW	• Individual Practice/Testing		

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This training approach builds upon several key learning principles which have influenced the entire campaign and which are listed below.

Standardize all Terminology and Procedures. Special care has been taken to ensure that the same language and visuals are used through radio, print, and training materials.

Develop Constancy Through Fluency. The training program includes an exercise which motivates trainees to mix a S/S solution "as fast as they can" to promote smooth, fluent, and quick performance of this key skill. Fluency has been shown to correlate positively with the ability to maintain a skill over time.

Emphasize Discriminations between Correct and Incorrect Performance to Ensure Continued Self-Reinforcement. A "discriminations game" has been developed so that trainees can "catch the trainer's mixing mistakes" and consequently become aware of simple but key mistakes that are possible (Appendix C).

Gradually Increase Salience of Practice Settings from Ideal Conditions to Real-life Conditions. The training design gradually puts trainees in situations of increased difficulty similar to that which they will find at the rural health center.

Emphasize Cueing and Consequences as much as the Behavior Itself. Radio has been given an important cueing role. Regular broadcasts will cue health workers to teach the S/S solution treatment and remind mothers when to seek outside help. Print materials and radio combine with the lottery to provide an important regular cue to mixing the S/S solution properly and a positive consequence for listening to the radio lessons.

Provide Immediate Post-Training Application and Rewards. The final training session will require trainees to develop a specific schedule for visits to surrounding villages to apply their newly acquired skills. They will receive materials to distribute which act as a reward in a print-starved environment and will be praised by visiting MCH teams for effective distribution of materials.

Reward Approximations as well as Full Compliance. This principle has been included in both radio and direct face-to-face training. The campaign is to have a positive, rewarding tone; avoiding scare tactics or a heavy, serious tone. Trainers will provide direct praise during the training course.

Provide Multiple Channels for the Same Information. Radio, print, training, and opinion leadership will all receive and transmit the same messages - focusing specifically on mixing the S/S solution.

Workshop training will be conducted in English, using project staff, members of the Health Education Unit, and physicians from the British Medical Research Council in The Gambia as trainers. Training sites will be scattered throughout the country and will follow the regular logistical and administrative norms of the Ministry of Health.

H. MATERIALS DEVELOPMENT AND TESTING

The project will rely on a systematic materials development process, stressing materials testing and revision. Because broadcast and print materials for rural mothers play such an important role in the overall success of the campaign, priority will be given to testing these materials. Pre-testing of draft materials (audiotapes of radio programs and visual mock-ups of print materials) for these audiences will be conducted in five villages outside Banjul. While these villages are not absolutely typical of those in the most isolated sites in the region, they do provide convenient and representative sites for testing. Care will be taken to test some materials in each of the three prominate language groups, Mandinka, Fula, and Wollof.

Not all materials will be pre-tested. Selected formats which provide representative samples of message approaches will be tested first. Critical questions related to each test material will be developed before each test and used to guide the interviewers (see Appendix D). Materials will be chosen for testing based on their novelty, complexity and relative importance in the overall campaign. The lottery ticket/mixing flyer, for example, will undergo the most rigorous testing because of its importance in teaching the basic mixing instructions.

I. MONITORING CAMPAIGN COMPONENTS

Regular meetings with MCH "trek teams" and with the rural health inspectors, as well as sporadic visits to rural communities, will be used to monitor project components on a regular basis. A mid-program sampling of rural villages is scheduled for late August. The important issues to be investigated include:

1. Is the mixing flyer being distributed with relative evenness throughout a village?

2. Are women listening to and understanding the radio programs?

3. Are there any unexpected obstacles to the acceptance of the S/S solution and feeding advice?

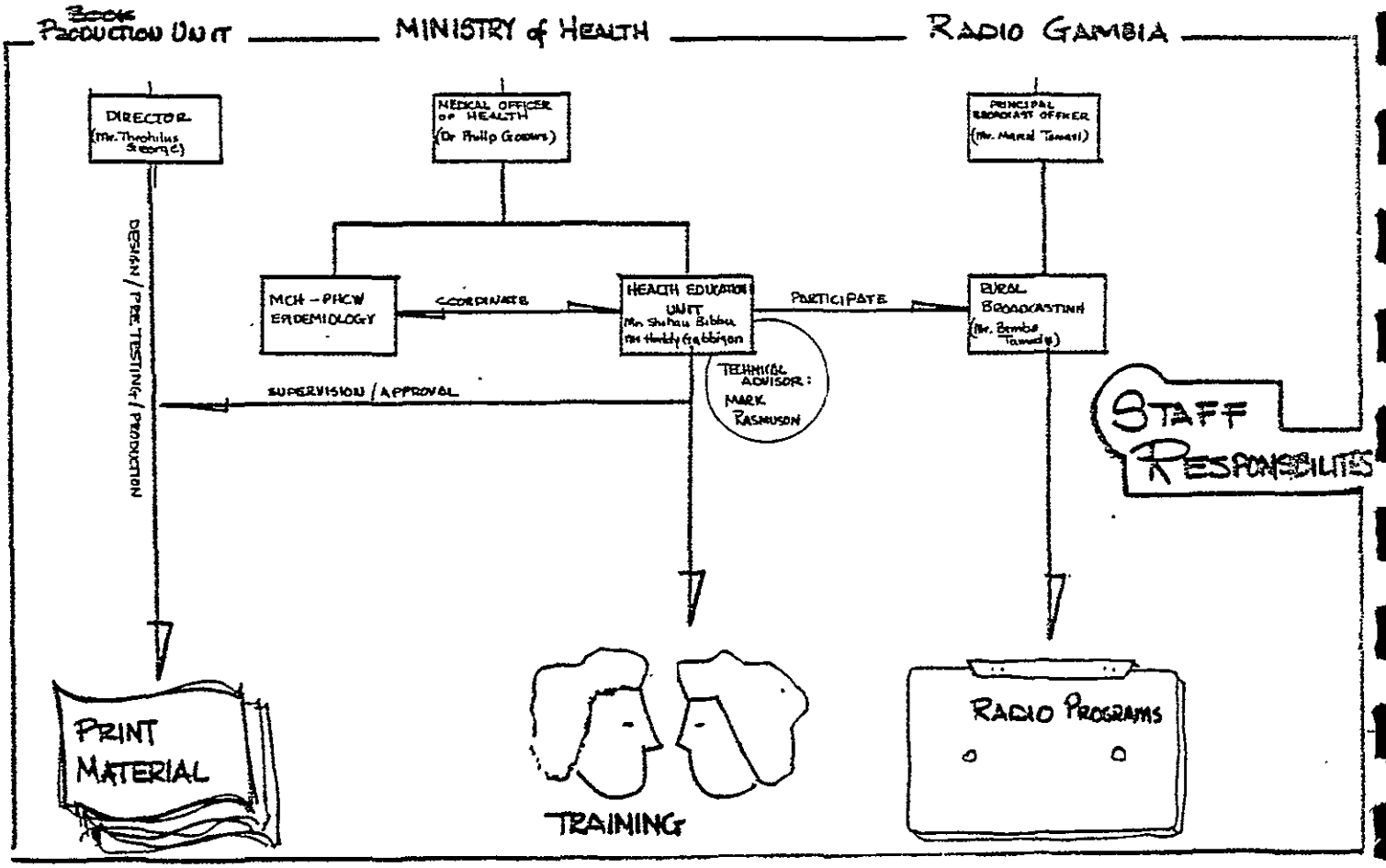
4. Are lottery winners getting special attention in their communities?

5. What effects is the program having on health workers? (demand for flyers, etc).

In addition, the Evaluation Contractor will provide the project team with as much anecdotal information as possible on acceptance and compliance with key behaviors. Realistically, however, it is not expected that significant quantitative data from this source will be available in time to permit substantive changes in the campaign design.

J. PROJECT STAFF RESPONSIBILITIES

The following graph illustrates the distribution of staff responsibilities among the several local ministries and the technical assistance personnel being provided by the Academy.



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The key personnel include:

Dr. Philip Gowers: Medical Officer of Health, Ministry of Health

Mr. Saihou Dibba: Head, Health Education Unit

Ms. Haddy Gabbigon: Health Inspector, Health Education Unit

Mr. Theohilus George: Director, Book Production Unit

Mr. Marcel Tomasi: Principal Broadcast Officer, Radio Gambia

Mr. Bemba Tomadu, Chief of Rural Broadcasting

Mr. Mark Rasmuson: Academy Field Coordinator

Dr. Gowers will have overall responsibility for guiding and approving project activities and ensuring that the program is consistent with the Ministry's overall health priorities.

Mr. Gibba will coordinate all project activities within the Ministry of Health with special emphasis given to overseeing the training of health workers and the integration of radio production skills within the Health Education Unit. It is considered that the Health Education Unit will be the entity responsible for future campaign planning and supervision.

Ms. Haddy Gabbigon is assigned full time to the project and will have full responsibility for coordinating training of health workers and supervising the collection of village research information.

Mr. George will direct all testing and production of print materials for the campaign.

Mr. Tomasi will be responsible for approving all radio materials and ensuring that the program is consistent with national broadcast policies.

Mr. Tomandu will coordinate all radio production within Radio Gambia and ensure that programs are produced in a timely and effective manner.

Mr. Rasumuson will oversee the expatriot contribution including both financial resources and the planning and administration of specific consultants. He will oversee the timely progress of the implementation plan, ensuring that scheduled events take place at the planned times.

SECTION III

COMPARING HONDURAS AND THE GAMBIA

The MM&HP project is a two-site program. The original conception of the project included two sites so that comparisons could be made between a single methodology applied to two different environments and cultural settings. The Gambia and Honduras were chosen largely because of their differences. In essence, the question is: does a systematic, mediated campaign work effectively in both an African and a Latin American setting?

With the development of this implementation plan the parameters of difference between the two countries are clear. The chart on page III-2 illustrates the most relevant differences and suggests that in fact the two sites and the two intervention plans are significantly different.

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SOME DIFFERENCES BETWEEN THE TWO SITES

		The Gambia	Honduras
EXISTING ENVIRONMENT	The Health Problem	Striking seasonal variation between short dry season of watery diarrhea, and longer wet season of prolonged diarrhea interacting with malnutrition.	Seasonally prominent watery diarrhea.
	Target Audience	Striking linguistic and cultural differences between major sub-groups.	Homogeneous cultural groups
	Health System	Limited central resources, with significant potential for rural coverage	Significant central resources with relatively limited rural outreach.
	Radio	Single , centralized government broadcast channel. Limited potential coverage.	Multi-channel commercial broadcast system. Excellent potentials for coverage.
	Print Media	Practically unknown at village level	Limited availability, but some exposure.
PROPOSED INTERVENTION	Rehydration Regimen	S/S in the home-Packet and IV in the health center.	Packet in the home. Packet and IV in the health center.
	Treatment Strategy	Reinforce significance of dryness. S/S means to prevent dryness. Teach signs of mild dehydration as point to seek help.	Teach significance of dehydration. Teach signs of mild dehydration as point to seek help.
	Principle Treament Ojective	Standarize and popularize proper mixing and use of S/S solution in the home.	Popularize appropriate application of the packet in the home.
PROPOSED INTERVENTION	Principle Prevention Objective	Regular eces campaign within compound.	Cluster of prevention behaviors.
	Campaign Structure	High impact radio lottery targeted at rural women with print and health worker support.	Multiple, intensively repeated short radio messages, broad print material and health worker focus.
	Time	24 months total/12 month broadcast cycle.	36 months total/24 month broadcast cycle.

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To understand the MM&HP program it is also important to note the commonalities, not of setting, but of approach, which characterize the project in both countries.

In both countries:

- A significant pre-planning investigation of the medical problem, the social context, and the instructional tools was conducted.
- Focused instructional goals were established, avoiding a broad and superficial treatment of diverse development objectives.
- The ultimate criteria against which design decisions were made was the feasibility, practicality and reliability of audience adoption.
- Behavioral design principles were used to select target behaviors, develop the training design, and orient the campaign structure.
- Radio, print, and face-to-face support were designed as integrated, mutually supportive, and interactive components.
- Significant use was made of radio for direct instruction as well as information dissemination and popular mobilization.
- Systematic materials testing and on-going component monitoring were included as fundamental elements.

SECTION IV

ANTICIPATED LOCAL CAMPAIGN COSTS

A.	Local Consultants	
	7 person/months	7,000
B.	Local Travel & Per Diem	1,704
C.	Other Direct Costs	
	Training Seminars	10,000
	Printing	
	Treatment Poster	3,000
	Mixing Flyer/Lottery Ticket (50,000)	1,500
	Mixing Poster	1,000
	Manual	500
	Physician's Mailer	200
	Subtotal	6,200
	Lottery Prizes	
	Radios (5)	440
	Tee-Shirts (200)	600
	Litre Cups (1,000)	500
	Subtotal	1,540
	Field Taping Equipment	
	Cassette Deck	300
	Casette Recorder	200
	Tapes	300
	Subtotal	800
	Broadcast Time	1,000
	SUBTOTAL OTHER DIRECT COSTS	9,540
TOTAL		$28,244

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APPENDIX A

HEALTH WORKER'S MANUAL
for the
MANAGEMENT OF
ACUTE DIARRHOEA
IN THE GAMBIA

APPENDIX A

HEALTH WORKER'S MANUAL for the MANAGEMENT OF ACUTE DIARRHOEA IN THE GAMBIA

HEALTH EDUCATION UNIT
DEPARTMENT OF MEDICAL AND HEALTH SERVICES

Banjul, The Gambia
December 1981

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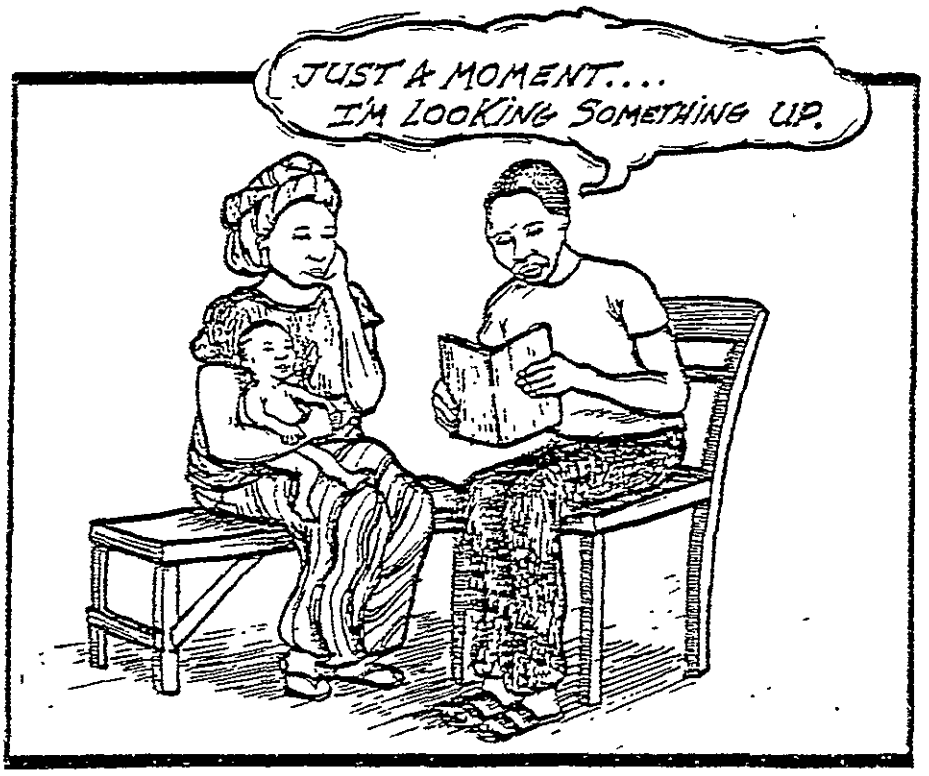
I N T R O D U C T I O N

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

ACTION PLAN FOR THE MANAGEMENT OF DIARRHOEA

STEP 1

Explain to the Mother the Dangers of Diarrhoea ..... P. 2

STEP 2

Assess Hydration Status ..... P. 4

STEP 3

Determine Which Treatment Plan to Use

Treatment Plan I ..... P. 6

Treatment Plan II ..... P. 9

Treatment Plan III ..... P. 11

Treatment Plan Summary ..... P. 13

STEP 4

Consider and Treat Special Types of Diarrhoea ..... P. 14

STEP 5

Tell the Mother How to Prevent Diarrhoea ..... P. 16

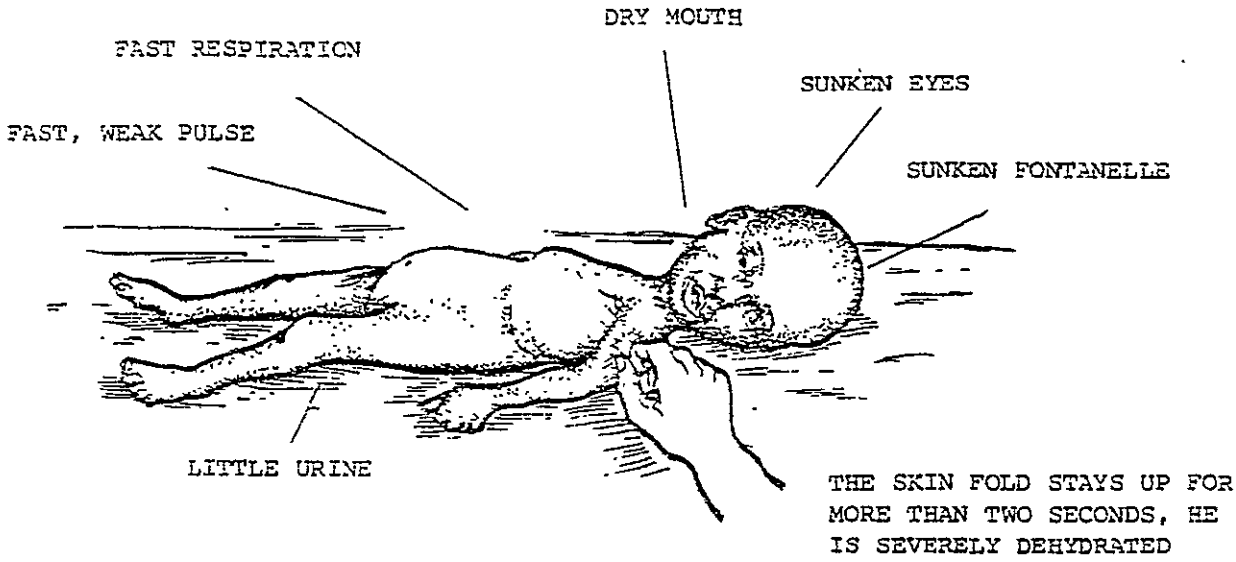
Step 2

ASSESS HYDRATION STATUS

Before beginning treatment, we must examine the child in order to determine his "Hydration Status". Hydration Status indicates how much water the child has lost. Once we know this, we will know which Treatment Plan to follow. The more often this Assessment Table is referred to, the more quickly and accurately the Health Workers will be able to diagnose Hydration Status.

ASSESSMENT OF HYDRATION STATUS

	NORMAL	MODERATE	SEVERE
GENERAL APPERANCE	Well	Restless or floppy	Very limp or unconscious
SKIN ELASTICITY (best to pinch-up skin above clavicle)	Normal elasticity	Reduced elasticity	Severely reduced elasticity
EYES	Normal	Slightly sunken	Severely sunken
PULSE	Good volume Less than 120/min.	120-140/min.	Very weak or absent More than 140/min.
RESPIRATION	20-30/min.	30-40/min.	More than 40/min.
URINE OUTPUT	Normal	Decreased	Almost absent



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!

Step 3

DETERMINE THE TYPE OF TREATMENT PLAN

AFTER ASSESING 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 Sugar-Salt Mixture.
3. Tell her the amount to give the child, using the information in the Box below.
4. Tell mothers to give more than normal amounts of breast milk, tea, water, and fruit juice. Orange and lemon juices are particularly good.
5. Advise her to return if the child's condition worsens.

HOW MUCH SUGAR-SALT MIXTURE TO GIVE

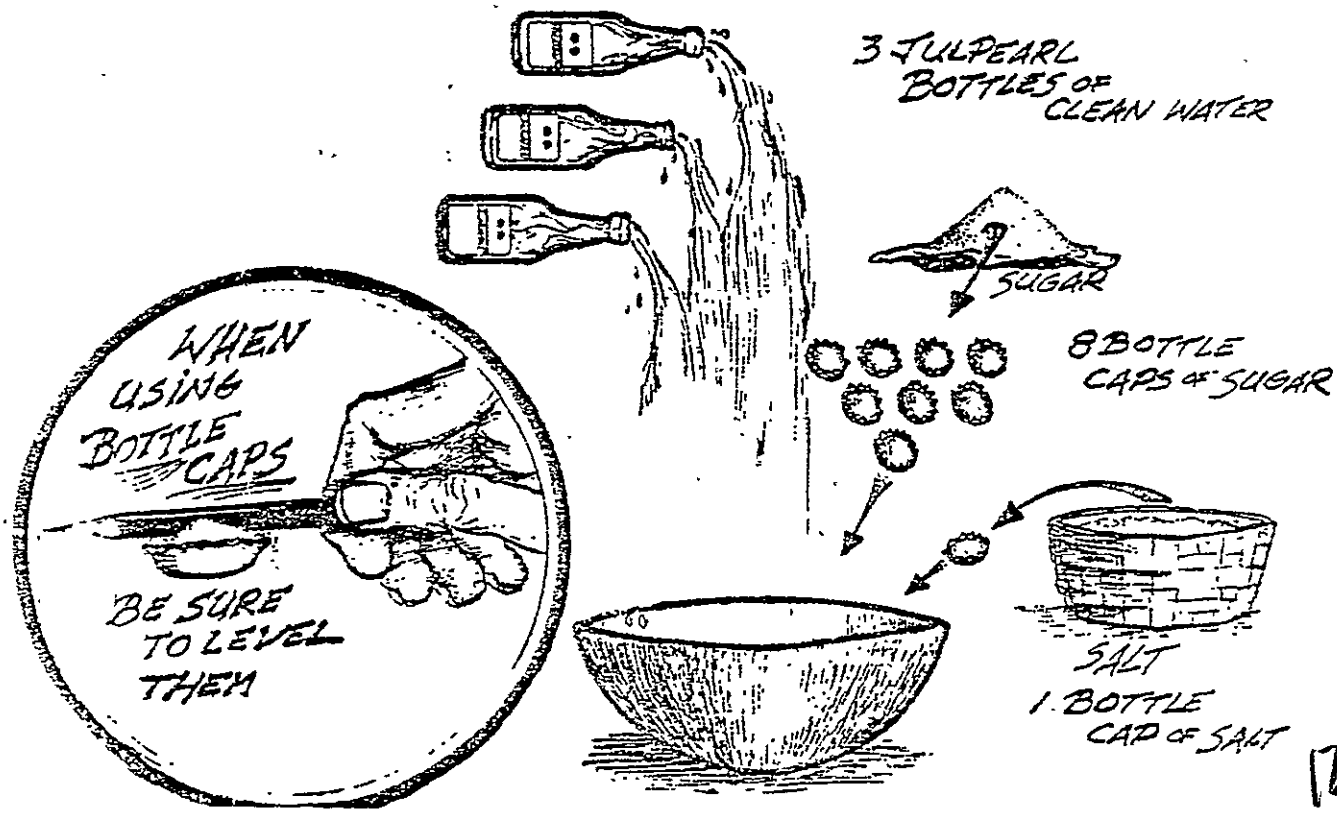
* For 24 hours, between breast feeds, give:

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)

TREATMENT PLAN I

SUGAR-SALT SOLUTION: TEACHING PROCEDURE

1. Wash hands with soap and water.
2. Use clean utensils and the cleanest water available.
3. Pound coarse salt so that it will dissolve easily.
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 clean container.
   * Measure out 1 level JULPEARL CAP of SALT.
   * Measure out 8 level JULPEARL CAPS of SUGAR.
   * Stir until Sugar and Salt are completely 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.
8. Get the mothers to taste the mixture so that they recognise the correct taste. Tell them to always taste the mixture before giving it to their babies.



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 Sugar-Salt Mixture 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 the mixture should be given even if vomiting occurs. They should wait ten minutes and then continue giving it.
* 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 mixture as he needs. It must be given at frequent intervals, in an upright position; with a suitable container. No feeding bottles!
* Explain that Sugar-Salt Mixture must be stored in a clean container with cover, and must be mixed fresh every 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 protein, and fruits such as oranges, limes, papayas, and bananas if available.

HEALTH WORKERS, LOOK FOR WAYS TO SHARE YOUR KNOWLEDGE.

TREATMENT PLAN II

MODERATE DEHYDRATION STATUS

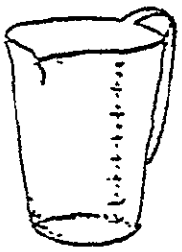
Aim: To replace present losses and to anticipate losses in the next 24 hours.

1. Weigh the child to determine how much W.H.O. Solution he needs.
2. Mix the W.H.O. Solution yourself using a UNICEF packet. DO NOT give a mother a packet to mix herself.
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. They apply to the use of the W.H.O. Solution as well as the Sugar-salt mixture.

HOW MUCH W.H.O. SOLUTION TO GIVE

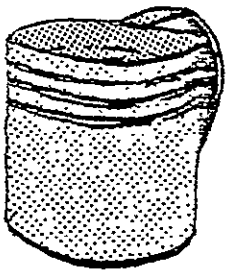
* For the first 4-6 hours, give:
  20 mls/Kg /Hour
* Reassess after 4-6 hours
  If worsening, go to Treatment Plan III
  If improving, give 100 mls/Kg /Overnight
* Reassess the next morning
  If Hydration Status is normal ⟶ Treatment Plan I
  If Moderate Dehydration Persists ⟶ Treatment Plan II
  If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

TO HELP YOU MEASURE VOLUME, REMEMBER:
EACH OF THESE CONTAINERS HOLDS ABOUT 1 LITRE OF FLUID



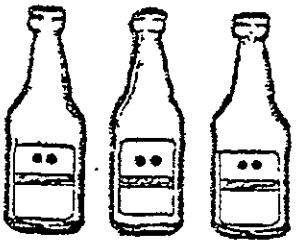
a 34 fl. oz. measuring pitcher

OR



a large plastic drinking cup

OR



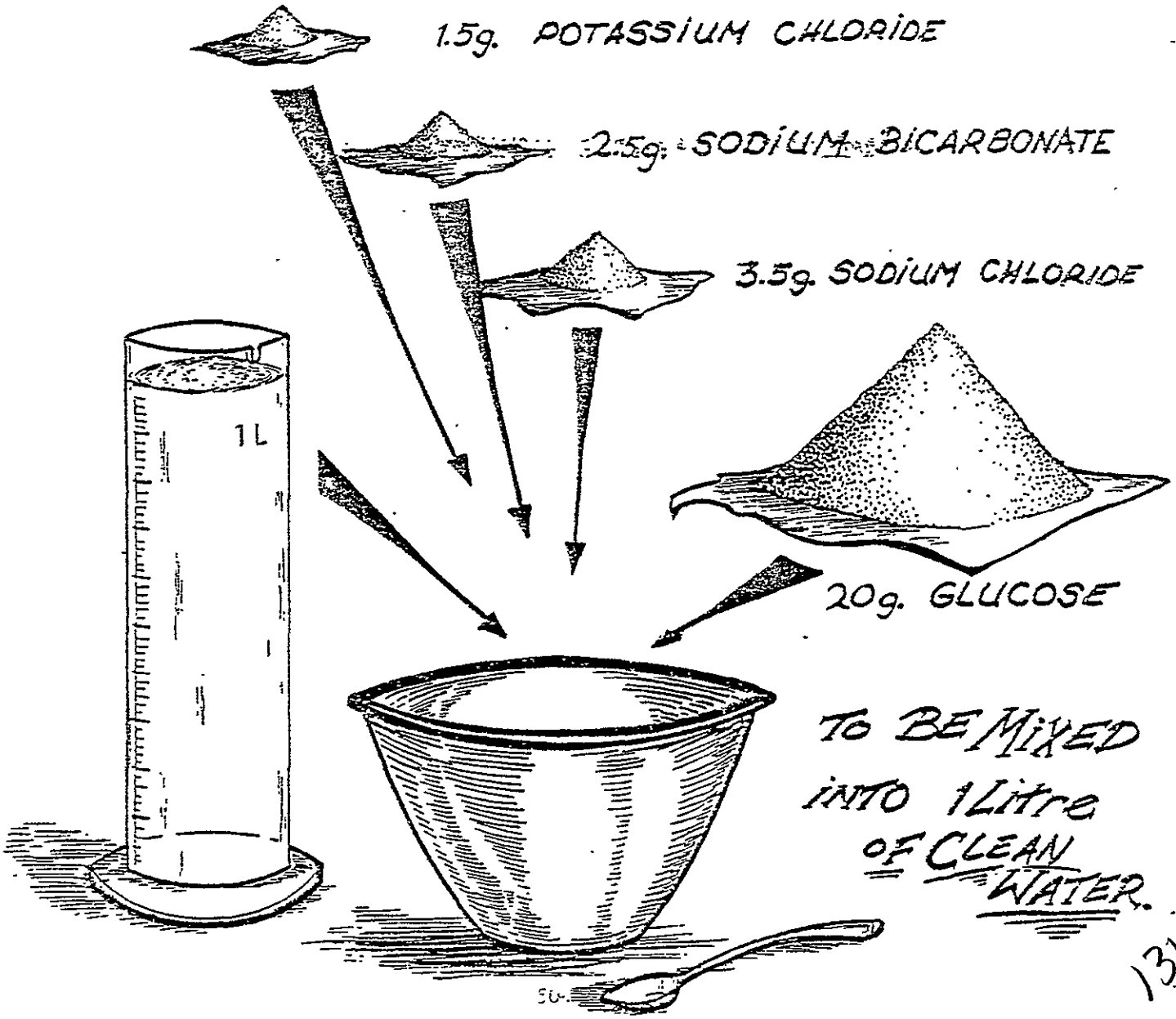
3 Julpearl bottles

20 mls = .7 fl. ozs	100 mls = 3.4 fl. ozs
50 mls = 1.7 fl. ozs	1000 mls (1 litre) = 34 fl. ozs

W.H.O. SOLUTION

All medical facilities will be provided with supply of the W.H.O. Solution packets, usually the UNICEF 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

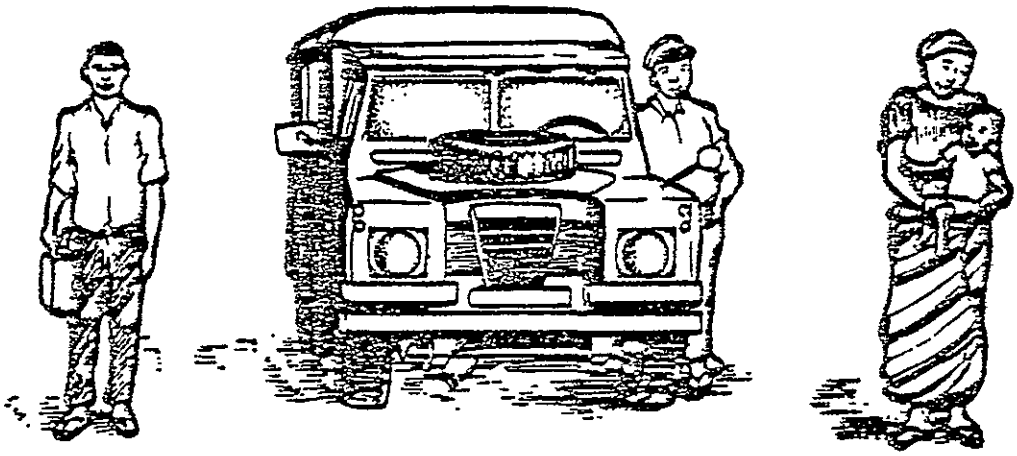


SEVERE DEHYDRATION STATUS

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.



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

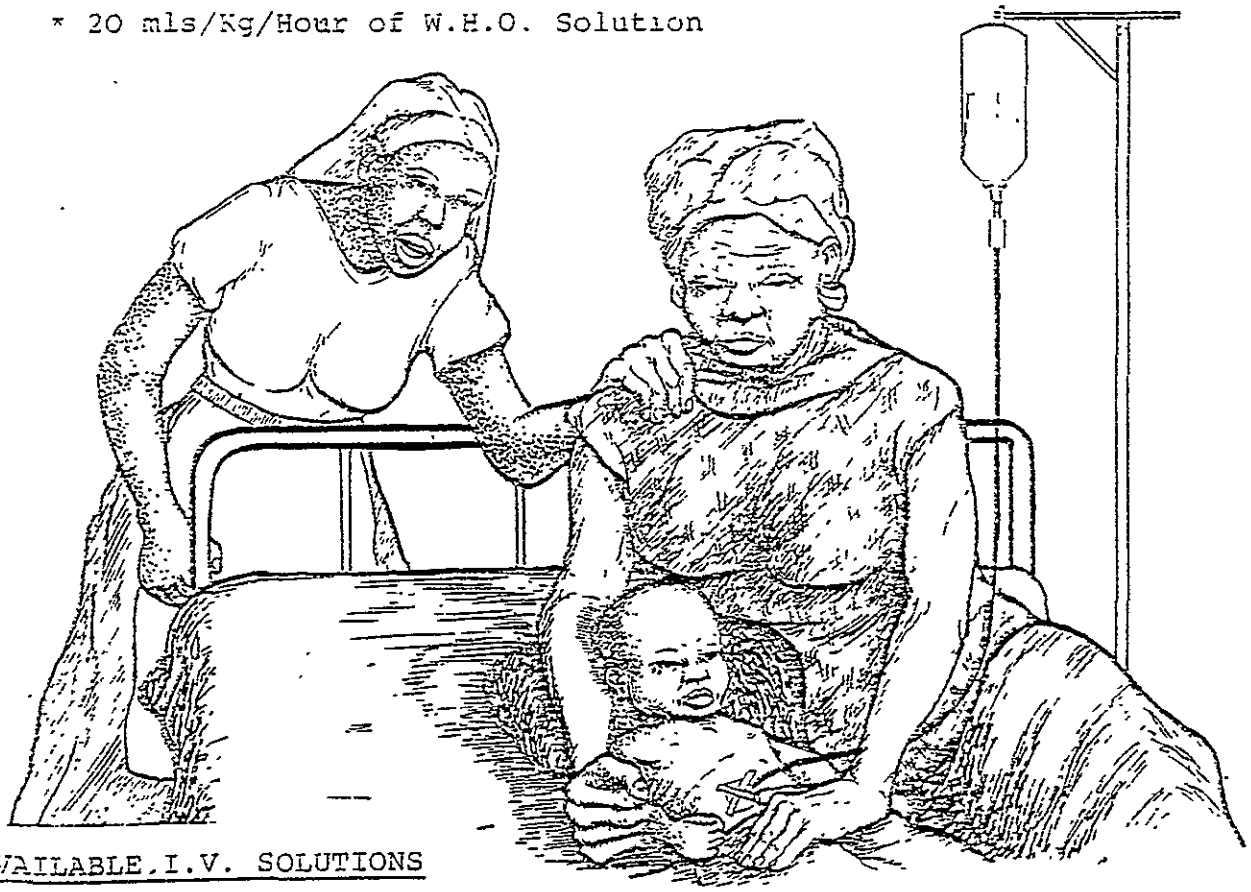
2. Reassess after 1 hour. If improving, continue the above Oral Therapy until rehydrated. If not improving, transfer to I.V.

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



AVAILABLE I.V. SOLUTIONS
(Only Available at Selected Centres)

In order of preference:

* ½ STRENGTH DARROW'S SOLUTION WITH 2.5% GLUCOSE
* HARTMANN'S SOLUTION
* DEXTROSE - SALINE
* NORMAL - SALINE

TREATMENT PLAN SUMMARY

TREATMENT PLAN I:	* For 24 hours, between breastfeeds, give:	
NORMAL HYDRATION STATUS	Child weighing LESS THAN 5 Kg (0-6 months old)	300 ml (1 Julpearl bottle)
*	Child weighing MORE THAN 5 Kg (6-18 months old)	600 ml (2 Julpearl bottles)
SUGAR-SALT MIXTURE	Child weighing MORE THAN 10 kg 18 months and older)	900 ml (3 Julpearl bottles)

TREATMENT PLAN II:	* For the first 4-6 hours, give: 20 ml/Kg/Hour
MODERATE DEHYDRATION STATUS	Reassess after 4-6 hours.
*	If worsening go to Treatment Plan III
W.H.O. SOLUTION	If improving give 100 ml/Kg Overnight
	Reassess the next morning
	If Hydration Status is normal ⟶ T. Plan I
	If Moderate Dehydration persists ⟶ T. Plan II
	If Severe Dehydration develops ⟶ T. Plan III

TREATMENT PLAN III:	* For the first hour, give: 20 ml/Kg of W.H.O. Solution (use nasogastric tube if necessary)
SEVERE DEHYDRATION STATUS	Meanwhile, transfer to facility with I.P. or I.V. On arrival, begin I.P. rehydration
*	
W.H.O. SOLUTION	* For the first hour, give intraperitoneally: 50 ml/Kg of I.V. Solution
+	
I.V. SOLUTION	Reassess after one hour
	If improving ⟶ continue till rehydrated
	If worsening ⟶ transfer to I.V.
	* Immediately, give, intravenously 20 ml/Kg of I.V. Solution
	*Then, give: 10 ml/Kg/Hour till rehydrated
	With I.P. or I.V. Therapy, continue giving O.R.T. If the child can drink.

Step 4

CONSIDER AND TREAT SPECIAL TYPES OF DIARRHOEA

ONLY do this after you have started rehydration therapy

(1) Dysentery - If the child is febrile and you are sure there is blood and mucus in the stool, treat with antibiotics (e.g. Tetracycline; children need 62.5 mg, 5 ml of paediatric elixir) every 6 hours for five days.

(2) Chronic diarrhoea - This may be caused by parasitic infections such as giardia or ascaris. Microscopic diagnosis is essential before treatment with Mepacrine or Metronidazole for giardia, or Piperazine for ascaris.

(3) Severe watery diarrhoea in epidemic form - Suspect cholera, continue intensive oral rehydration, and report to Medical and Health Department immediately.

(4) Diarrhoea associated with systemic infection - Do not forget to treat underlying conditions such as malaria with Chloroquine and severe respiratory infections (pneumonia or otitis media) with antibiotics.

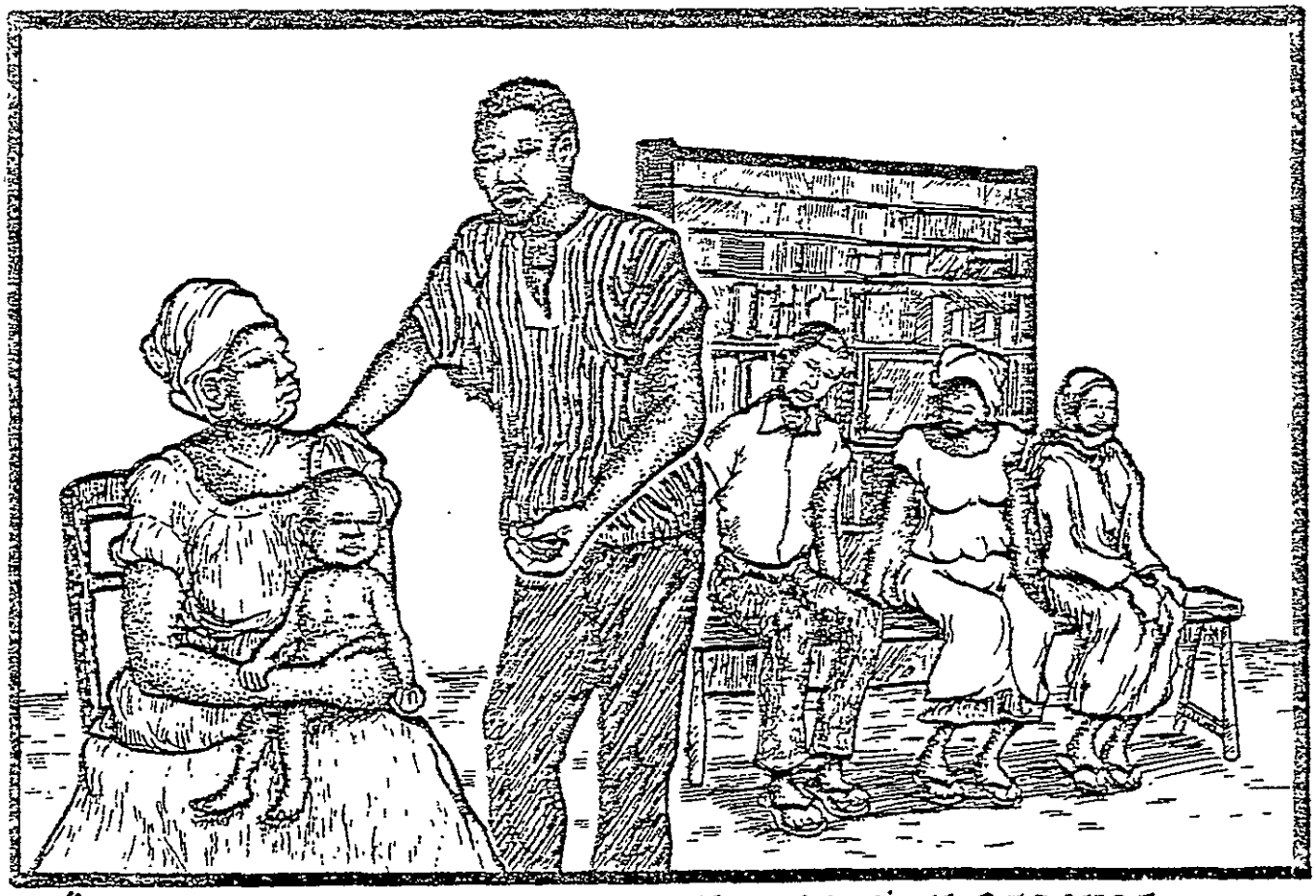
MEDICINES WHICH HAVE LITTLE USE IN TREATING DIARRHOEA

* EXPENSIVE AND DANGEROUS - Neomycin and Streptomycin may damage the intestine. Lomotil may alter bowel motility sufficiently to delay clearance of the infective agent.

* MODERATELY EXPENSIVE AND USELESS - Non-absorbable sulphas such as Phthalylsuphathiazole.

* CHEAP PLACEBO - Although Kaolin makes the stool more solid, it does not decrease the total amount of fluid loss and may increase the electrolyte loss. The danger is that if Kaolin is prescribed without Oral Rehydration Therapy the child may still develop severe dehydration.

N.B. Oral rehydration must be given to adults and children with diarrhoea. Kaolin may be given to adults only. Do not give to children!



"NO YOUR SON DOES NOT NEED AN INJECTION BECAUSE HE'S GOT DIARRHOEA. WHAT HE NEEDS IS A SPECIAL MEDICINE THAT YOU CAN MAKE AT HOME"

Step 5

DON'T FORGET TO HELP PREVENT DIARRHOEA!

It is easy to tell ourselves, "Oh, these people will never understand what I'm telling them. It's hopeless - they'll never change." Indeed, it is difficult to convince a group of women that their children need fluids, not an injection! Traditional attitudes toward medicine do not change quickly. But we must begin somewhere.

The mother who understands the importance of rehydration is a valuable member of the Health Team. As we help women to understand that they can often treat children who have diarrhoea at home, we will see fewer of these children at the clinics. Fewer children will need I.V.'s, and fewer children will die from dehydration.

While we are teaching mothers to prevent dehydration with sugar-salt mixture, we should not forget to teach them to prevent diarrhoea itself. We can do this by teaching them about the importance of good hygiene and good nutrition. Infection is one of the major causes of diarrhoea, and good hygiene helps to reduce the incidence of infection. Therefore, several practices should be encouraged.

The use of soap with water is indispensible to good hygiene. While most people wash their hands before eating, they do not use soap. They just swish their hand around in a bowl of water and are done with it! Encourage people to wash with soap and water before cooking and eating, and before and after going to the latrine.

Also, we see many small, naked children playing around in the dirt. Discourage this! Children should be playing on mats, and if their mothers cannot keep them out of the dirt, they should put protective clothing on them. Children who are always getting dirty should have a soapy bath more than once a day.

These areas of hygiene fall under the responsibility of the women, but the men also have to be encouraged to improve the safety of their compounds. Every compound should have a pit latrine with cover. And if the compound owner has animals, he should build sheds for them instead of keeping them in his wife's kitchen.

A child who is poorly nourished is often sick. He is troubled with infections because his resistance to disease is low. So in order to prevent diarrhoea, we must not only encourage good hygiene, but also promote good child nutrition.

The first key to good infant nutrition is: BREAST IS BEST. If we ever see baby-bottles in people's compounds, it is time to sit down for a serious discussion. Baby-bottles are one of the biggest carriers of bacteria that cause diarrhoea.

As mothers breastfeed, they should begin to introduce weaning foods by the time a child is about four months old. Rice and coos pap is good for starters, but mothers should gradually add other foods to the pap - like eggs, and pounded groundnuts. Fruits and vegetables, mashed banana, mango, paw paw, potato, pumpkin, and beans are also important to the growing child's diet; Fish is an excellent source of protein for babies; as fish is soft, it is easier to eat than chicken or meat. By his first birthday, the child should be eating everything that his family does - except pepper.

Whether at the dispensary, at the Health centre, or at the hospital, we should always try to find ways to share our knowledge with the people we are serving. It is our responsibility to teach the people how to prevent diarrhoea, as well as how to prevent death caused by dehydration.

Gambian women will not realize the importance of Oral Rehydration Therapy - and their role in it - until we <u>show</u> them that it is important! We cannot quickly change the health habits of the people. Involving mothers in this process will require repeated teaching and demonstration. It will take years, and will only succeed with the

APPENDIX B

MIXING TRIALS OF THE SUGAR/SALT SOLUTION USING RECORDED INSTRUCTIONS

APPENDIX B

MIXING TRIALS OF THE SUGAR/SALT SOLUTION USING RECORDED INSTRUCTIONS

METHODOLOGY

Instructions for preparing the sugar/salt (S/S) oral rehydration solution using Julpearl bottles and bottlecaps for measuring were recorded in Wolof and Mandinka. These were played for mothers in health facilities providing all of the necessary materials; and in village compounds, having mothers provide all of the materials themselves. The first part of the instructions asked the mother to gather all of the necessary materials and the second part gave her mixing instructions. The basic purpose of the experiment was to see how much a mother could do using only recorded instructions with no face-to-face training; how many repetitions of the tape would the mothers need to correctly make the solution. The results were needed in order to answer the following:

1) Can radio be used to teach the complicated sugar/salt recipe?

2) How frequently will these instructions need to be given so that mothers correctly mix the solution and don't make significant mistakes.

Mixing trials were performed in one health facility and in several village compounds.

The mixing trial in a fixed health facility took place in Kunteng, a village of approximately 350 people. The home-mixing trials, with mothers providing all materials, were conducted in the following areas:

Brikamaba:	a large village on the paved road with a health center	1 Wolof compound 1 Mandinka compound
Changai:	a small village on a dirt road with no health facility	1 Wolof compound
Bakadaji:	a medium-size village on the paved road	2 Mandinka compounds

Mixing Trials in the Home

1. Availability of Materials

All of the mothers were able to produce the necessary materials except lemons and oranges which were unavailable in almost all of the sites. However, it frequently took quite a while, up to 30 minutes, to gather all of the necessary materials, sending out to purchase sugar or borrow a lemon or bottlecap from a neighboring compound. The bottlecap was almost always the last thing to appear. The gathering of materials "cost" the others a lot more than the actual mixing.

2. Cleanliness

Water was always taken from the covered drinking pot.

Washing of hands and utensils was sometimes with soap as the instructions called for, but frequently only a rinsing with water. Sometimes the utensils were washed in very dirty water with a final rinsing with "clean" drinking water. Flies were frequently on utensils and ingredients.

This indicates that even though the mother boils the water, the unsanitary conditions of the mixing may re-contaminate the mixture.

3. Mixing

Almost all of mothers correctly gathered the materials and mixed the solution using only recorded instructions, even though none of the mothers had prepared the solution before. Only one older woman used four Julpearl bottles of water. However, mothers needed to hear the first part about three times to gather the necessary utensils and ingredients and the second part (the recipe) three times to make the solution.

In general there is a lot of group interaction as several men and women in the compound group around the demonstration. Other women would remind the mixer of forgotten details and help her gather the ingredients.

Suprisingly, the mothers generally had no trouble counting the eight capfuls of sugar even with interruptions. They never confused the proportions of sugar and salt.

Most mothers heaped the capfuls as full as possible creating the possibility of a solution high in saline. The instructions should be re-written to say the caps should be level.

In general mothers tended not to stir the solution or not to stir it enough to dissolve the sugar and salt. The instructions should emphasize that the ingredients should be mixed well until the sugar and salt dissolve completely.

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3. Mixing (continued)

The instructions in Mandinka need to be changed to say squeeze the orange/lemon into the water, not place them in the water.

4. Questions

Questions mothers asked included:

a) Should I boil the water? (two mothers)

b) Is only one person going to make it?

c) Should I pound the salt?

d) Should I boil the water or warm it?

e) Should I measure the water before or after I boil it?

f) How old a child can be treated with this remedy?

g) How important is lime or lemon?

MIXING TRIALS IN THE HEALTH CENTERS PROVIDING ALL THE MATERIALS

This trial was only carried out with three mothers because the noise level in the dispensary made it impossible to hear the tape recorder. As expected, two of the mothers had an easier time preparing the solution when all the materials were provided. These two required only two repetitions to complete the mixture.

The first mother did everything correctly but stir the solution and the second mother did everything but put in four oranges (she put in two) after hearing the instructions one time. However, the third mother was completely unable to make the solution because she was frightened and unable to concentrate; we must assume there are mothers who are unable to learn without face-to-face instruction.

The same patterns occured in the Health Center as in the home:

1) improper washing of hands

2) ability to count bottlecap proportions correctly

3) heaping of sugar and salt in the bottle caps

4) not enough or no stirring

Several mixing trials were also conducted using face-to-face instruction in place of recorded audio instructions. These trials were conducted in the Basse Health Center, with a Community Health Nurse giving three mothers a single set of verbal directions (no demonstration) for making sugar-and-salt solution. All ingredients were provided except oranges.

As with the other trials, the three women had no difficulty counting out the correct number of bottles of water or capfuls of sugar. They also followed the Community Health Nurse's instruction to use <u>level</u> capfuls of sugar and salt by either levelling the capful with a finger or shaking it until level.

Their major difficulty was in the selection of the proper volume of water. Instructed only to use one litre of water and presented with a variety of different sized containers, one of the three women chose a medium-sized Nescafe coffee can and one chose a Fanta bottle. The third woman correctly chose a large one litre plastic drinking cup, but filled it only three-quarters full of water.

CONCLUSIONS

1. More mixing trials should be carried out in homes in other parts of the country to confirm these results.

2. These trials indicate that mothers can mix the solution using only the radio for instruction, with lots of repetition. The radio formats should capitalize on the group phenomena, perhaps asking mothers to listen in a group. Perhaps at the beginning of the program mothers could be asked to gather materials, repeating the ingredients between interludes of music. After a time (30 minutes) the mothers could prepare the solution together, with the radio repeating the instructions. Perhaps each compound could select two or three of their brightest most vocal elder women (the musakeba or nansingba) to be their diarrhea experts. All of the women in the compound could participate in the listening groups but these mothers could be responsible for showing others how to prepare the mixture.

3. Oranges and lemons should be excluded from the recipe. Mothers were very concerned when they weren't available. Mothers may not use the receipe at all because they think it won't be effective without all the ingredients. Will telling them that they don't have to use oranges make them lose confidence in the entire mixture? (Maybe I don't have to use sugar either!)

4. Since gathering of materials is so difficult, perhaps mothers could be encouraged to keep a "dryness kit" during diarrhea season (especially if one or two mothers could be responsible), where they would keep in one clean, covered place the ingredients and measuring utensils to make the solution.

5. The fact that all of the mothers in the Health Center and many mothers in the compounds wanted to take and use the solution indicates that mothers will accept the sugar/salt remedy, at least initially. However, mothers must understand that they are treating dryness (dehydration) and not stopping diarrhea.

6. The process of recording instructions indicates that it is going to be difficult to make announcers "stick to the script: without adding their own embellishments. Another problem is using the exact words to convey the concept since even native speakers use different words in different parts of the country. A suggestion is to have at least two other people translate as literally as possible recorded materials before taking them to the field.

7. The recorded instruction must be improved to include:

    1. Squeeze, not put, the orange/lemon (Mandinka version).

    2. Use level capfuls.

    3. Stir well until all the sugar and salt are dissolved.

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CONCLUSIONS (continued)

4. The Julpearl bottlecap should be added to the first part which explains what materials the mother needs to prepare the mixture. (Mandinka version)

In the Wolof version, the embellishment of squeezing the oranges in a separate cup and picking out the seeds should be taken out.

8. All instructions recorded, and face-to-face, should tell mothers to taste the solution so they know what it should taste like. They should always taste every mixture so they know they haven't confused the proportions of sugar, salt and water.

ANALYSIS OF THE PRODUCT PREFERENCE TRAILS

METHODOLOGY

Seven mothers at a large Health Center and fourteen mothers at a small village Dispensary were individually shown various products and packaging including:

LITROSOL packet with instructional lable

LITOROSOL packet without instructional sticker

Instructional envelope with two LITROSOL packets inside

Packet of UNICEF Oral Rehydration Salts

Bottle with clear liquid

Bottle with brown liquid

White pills

Hyperdermic needles

Each mother was told that all of the products are good treatments for diarrhea and asked to select the one she would prefer to use.

She was then asked to select the product she would prefer if her first choice were not available. The interviewer made no indication of her own preference, even if the mother asked her to. The mothers were from various tribes: Fula, Mandinka, Wollof and Serehule.

RESULTS

1. There seemed to be no differences by tribe in the selection of the product.

2. The biggest difference seemed to be location. Mothers in the village Dispensary preferred the packets while mothers in the Health Center preferred bottled liquids.

3. The most frequently selected single product was the the pills (eight mothers).

   Pills were selected in both the Health Center and village Dispensary.

   The second most frequently selected single product was the LITROSOL packet with the instructional sticker (seven mothers). However, this packet was only selected in the village Dispensary; it was never selected in the Health Center. Many of the mothers in the Dispensary who selected

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RESULTS (continued)

this packet as their first choice selected the UNICEF packet as their second choice. Both are white packets.

Surprisingly, the bottle with the milky liquid (kaolin, the present treatment for diarrhea in health facilities) was only chosen by five mothers.

Sugar/salt was selected by three women who had previously used it, although these mothers were at a health facility seeking other treatment.

4. PACKAGING: Surprisingly packets (LITROSOL with and without the instructional sticker and the UNICEF packets) were the most frequently selected packaging for a diarrhea medicine. Packets were selected 16 out of 42 times. Some of the mothers had seen and used packets before.

   Bottles with white, milky, clear and brown liquids were selected 13 out of 42 times.

   Surprisingly, the hyperdermic needle was only selected by one mother although Health Workers have reported that mothers prefer injections over other treatments.

CONCLUSIONS

1. Fortunately, there seems to be no single product or packaging which is preferred by mothers to treat diarrhea.

2. The results indicate that mothers will accept packets as a "good" treatment for diarrhea.

3. It is questionable where mothers will accept sugar/salt as a good remedy for diarrhea since even the three mothers who selected it were seeking other treatment at the health facility.

RESULTS OF THE LITER IDENTIFICATION TRAILS

METHODOLOGY

Twenty one mothers, seven in a large Health Center and fourteen at a small village dispensary, were asked to identify a liter container from amongst nine cans and bottles of various sizes. Those containers included three liter measures - a Nestle milk can, a common plastic drinking cup and a oil bottle. The interviewer made no gesture towards or identification of the correct answer even if the mother expressed doubts.

Results

Surprisingly, almost all the mothers (16 out of 21) could identify at least one of the liter containers and many could identify more than one. However, it is important to note that the five mothers who could not identify the liter were all at the village Dispensary indicating that recognition of a liter is correlated to distance from a population center. This may mean that mothers in rural villages, the majority and the ones who most need this knowledge, may not know this critical measure causing fatalities from high saline solution. Most mothers who could not identify the liter selected the small Nescafe can which holds only 250 millimeters.

Conclusions

1. If a liter measure is selected, radio messages should first teach the various ways of measuring a liter.

2. In any case all instructions - from Health Workers, graphics (manual) and radio must be standardized. There are too many recipes being taught and mothers are confusing the proportions.

APPENDIX C

TRAINING PLAN

APPENDIX C

TRAINING PLAN

Days 1 and 2:

Days 1 and 2 are the primary responsibility of Medical and Health Department. You should individually interview all participants concerning their formula for S/S solution, however, and record and analyze differences between formulas.

Day 3: Mixing Skill for S/S Solution

I. General Explanation (10 Minutes)

- Purpose of the program is to reduce the number of children who die from dehydration
- It is a special effort of Medical & Health which uses radio, print material and training to put an effective management system in place
- You are a special part of this program - you will 1) teach mothers a special new diet for diarrhea and 2) treat dehydration in the health center
- We've all worked for years on diarrhea, we know about S/S, but some of the latest medical findings have given us clues to a new approach
- We are one of two countries in the world trying this new idea-- we are among the leaders in the world
- Dr. Rowland/Tomkins are going to explain the scientific side of the new approach and then we will spend the next three days learning how we can contribute to the program. We have a manual, some posters, and some packets to give you.

II. Rowland/Tomkins (45 Minutes)

- Sources of contamination (Use Chart A)
- Contamination leads to diarrhea, diarrhea to dryness, malnourishment, and finally death
- Key signs of diarrhea - sunken eyes, limp, lifeless

- We can break the cycle at dehydration and malnourishment
- Suggest a new diet for a child with diarrhea - because children are most delicate
- Our job is to teach mothers to replace liquids early and keep feeding solid foods
- If that doesn't work to administer properly the UNICEF medicine
- But what we know now is that S/S, if it is properly mixed and administered, will keep many children from getting severely dry.
- It works like this: (use plastic bottle to demonstrate process)
  - Normal baby will take and absorb liquids
  - With diarrhea, the child looses the ability to absorb or retain all the liquids
  - S/S restores the ability to absorb liquid; even though the diarrhea continues the baby now has liquid
  - A child who is sick looses his appetite. We all think that watery soft foods are best and this is O.K. for one or two days when the child just refuses solid food.
  - But a child with diarrhea needs solid foods along with breastmilk to fight the disease, remain strong and get well. Remember we are not giving any medicine for diarrhea, but for dryness. The best medicine against diarrhea is a strong child - get mothers to give solid foods as soon as the child will take them.
- Now I want to turn you over to a team of friends who will show you all exactly how to mix and give the S/S solution. I know you've all used S/S, but we found very different formulas. It is critical that we all leave this week knowing the correct formula - some formulas do not work and others can even be dangerous. Before I introduce your training team let me just ask you again.
  - Where do we get diarrhea from?

    Acceptable answers: (faeces - food- water - hands - flys)

- Do we get it from breast milk? Do we get it from touching other family members? (No)
- Who in the family is most susceptible? (Young children)
- What is the greatest danger from diarrhea? (Dryness)
- How can we prevent dehydration (dryness)? (S/S plus diet)
- What does S/S do? (Let's child absorb liquid)
- What kinds of foods should we give? (Solid foods as soon as possible and breast milk)

OK. wonderful - I've enjoyed being here so much - now let me introduce my friends.

III. Demonstrate How to Prepare the S/S (30 Minutes)

- I'm really glad to be here today and I want to thank all of you for coming
- Dr. Rowland/Tomkins has explained why the S/S is so important. Why is that again? (If they say for diarrhea - correct them to say dehydration or dryness)
- And that S/S is the best way to prevent dehydration. What are some good words for dehydration - (write them on blackboard) - Talk about what each word means to the group.
- We want to keep the child, especially the young child, from becoming dehydrated (repeat their words for dehydrated).
- S/S is well known to you all. But yesterday we asked each of you for your own S/S recipe and look what we got. This is true all over the country. We are not all mixing it the same way and it is important that today we learn how to do it right - if we forget everything else we learn here today we want to know exactly how to mix the S/S solution correctly.
- Show mixing flyer - (large version) and point out flyer
  First, the ingredients - sugar, salt, water
  Second, the proportion - 8 caps, 1 cap, 3 bottles
- Demonstrate mixing - (points to make)

  1. Show all utensils needed
  2. Ingredients and proportion (too much sugar increases diarrhea, too much salt - dangerous to child, too much water-won't work. You need all three ingredients.

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4. Level bottle cap
5. Stir well to dissolve
6. Cover if possible - and ask group what is best container for mother to use?

IV. Discrimination Game (30 Minutes)

- OK - that's easy right! I'm going to do it again but I'm going to make some mistakes - you see if you find my mistakes.

  Possible Mistakes:

  - don't level cap
  - don't powder the sugar
  - add too much sugar, salt
  - use a basin too small to hold 3 bottles of water
  - use four bottles, etc.

- Who would like to come up and do it right for us - and we'll see if we can catch any mistakes (volunteer from group mixes)

- I'll do it once more with mistakes - you tell what the mistake is - and why it's important

V. Individual Practice (1 Hour)

Now we are going to break up into five groups of three. All of you will have a chance to practice mixing while your two friends watch for any mistakes this time. If mistakes are made, start all over from the beginning until you can do it perfectly - all the way through - with no mistakes. Then we're going to see who can do it the fastest. Look at your flyer or the poster if you want. But during the contest we'll take the visuals away.

VI. How to Administer the Solution (30 Minutes)

Now we know to mix it - but how much do we tell the mother to give?

- The basic principle is the smaller the child the less he/she needs - so there is a simple formula here on this graph.

Child under 6 months - as much as he will drink

Child between 7-12 months - one bottle

Child between 1-2 years - two bottles

Child older than 2 years - three bottles

- There are three key points to remember:

  1. Give the S/S solution slowly with a spoon - ask group who might give it if the mother is busy?

  2. Don't stop if the child vomits - wait a bit and continue more slowly? Even if the child vomits he will keep more in than he vomits out.

  3. Give enough - even if the child doesn't want to take it - the amount you give is as important as the right mixture itself. If he doesn't get enough - it won't help him!

- There are two more important things to tell the Mother

  1. Don't store the S/S for more than one day - use the remaining part to cook the child's food the next day. Make it fresh every day.

  2. Give breast milk - and as much solid food (rice - millet) as the child will eat.

VIII. Discussion (60 Minutes)

- What has your experience been with S/S in the village?
- What do you think will be the biggest problem?
- Do you think mothers understand the idea of S/S as a cure for dryness rather than as a cure for diarrhea?
- What about Kaolin? - is it good?
- What about feeding solid foods? - How can we best explain this idea to a mother so she accepts the idea?

IX. Performance Review - break group into three groups of five: each group with a trainer. Each person in the group answers the questions in rotation, who will be first?

OK let's go over the most important points

- Why is diarrhea harmful? (dehydration/dryness)
- What are the sources of diarrhea (food, water, flys, faeces)
- Who is at most risk in the family (small children less than two)
- What can we do to prevent diarrhea? (very little)
- What then should we try to do? - (prevent dehydration)
- How can we prevent dehydration in a small child? (diet of S/S, solid rice and millet and breastmilk)
- What does the S/S do for the baby? (gives strength, prevents dryness)
- How do we mix the solution? (8 sugar - 1 salt - 3 bottles water)
- Which of these ingredients is less important? (all are equally important)
- How much do we give? (depends on age)
- What is important to tell mother? (storage and feeding)
- What foods should the mother give? (solid foods as much as possible)
- Why? (strength)
- O.K., let's look at their drawings? (Used during training) What does this one tell us? -- A, then B, C. Look over each one letting one individual explain to the rest of the group. Have each individual correct mistakes gently.

Day 4: Packet/Training Manual

I. Repeat Performance Review Rapidly--have entire group go over graphic material.

II. Clinical Rehydration: What to do if the prevention doesn't work.

III. Follow--Honduras training design from this point on.

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IV. Review Manual

Distribute Health Worker's Manual (do not distribute before); go over in large group, page by page, letting participants underline key ideas from previous two days.

V. Performance Review - in small groups like previous day.

Day 5: Teaching S/S to Traditional Birth Attendants. (TBA)

I. Repeat Performance Review quickly with whole group (10 minutes).

II. Explain that as soon as they return they should start visiting villages and find a TBA to train. They will work with this person for one hour or so and leave a flag; while they are there they will locate three bottle caps and one Julpearl bottle. They will teach the TBA to mix the solution and ask if the TBA would be willing to teach village mothers who ask them for help. They will tell the TBA that they will be mentioned on the radio as "the person with the flag." If they agree, prepare the materials and train them as explained in III below.

III. Model Role Playing (30 Minutes)

Trainer plays role of Health Worker (HW)

Member of group plays TBA

TBA Training Scheme.

- Ask if TBA knows about S/S. If yes, ask what recipe they use. Say that there is now a better recipe that works to stop dryness in a child with diarrhea. M & H wants them to know this recipe in their communities and help others to learn it.
- Give flyer and explain it--tell them that radio will be talking about the flyer.
- Mix solution using Mixing Proverb; explain color on flyer and quantity of ingredients.
- Ask TBA to mix solution using the flyer as reminder
- Ask TBA to mix solution again without flyer available; praise them often but do not tell them what to do.

- Health Worker should then mix the solution and make some critical mistakes. Get TBA to describe the mistakes.
- Review flyer again and clarify any misunderstandings.
- Leave 50 flyers with TBA.

V. Practice Session (60 Minutes)

Break group into groups of three - to practice the play

VI. Discuss Problems (30 Minutes)

Discuss problems, then proceed with teaching TBA. Try to identify solutions from group.

VII. Quickly Review all Key Points (15 Minutes)

Afternoon

- Map catchment areas and assign villages - assign one TBA to be trained during the following week.
- Distribute Materials

  1 Box packets per Center
  1 Set of graphics per participant

  1 Manual per participant
  500 Flyers (50 per each TBA)

- Final Review - go over all the graphs used during the course with the group. Any problem areas should be reviewed again.

APPENDIX D

FLYER PRE-TEST

APPENDIX D

FLYER PRE-TEST

Overview

Materials Needed:

1. Several copies of flyer (full color, laminated)
2. Tape-recorded messages and tape recorder
3. Questionnaire

Phases:

I. Unaided Significance

With 20 village people; try to get at least 10 village mothers with child under five.

If changes are needed, make them and repeat unaided significance until satisfied with results.

II. Intercept Interviews

Using corrected version, with at least 50 village mothers with children under five.

Make changes if needed.

IV. Aided Significance

With 20 village mothers with child under five.

FLYER PRE-TEST

INTERCEPT QUESTIONNAIRE

_____

Identifiers:					
Male ____	Age 15-20___	30-40___	Can read Eng___	Arabic___	Both___
Female ____	20-30___	over 40___	Cannot read Eng___	Arabic___	Either___

Show the flyer and ask the following questions:

1. Do you see any salt in this picture? Yes_____ No_____
2. Where? Right_____ Wrong_____
3. Do you see any water in this picture? Yes_____ No _____
4. Where? Right_____ Wrong_____
5. Do you see a little boy in the picture? Yes_____ No_____
6. Where? Right_____ Wrong_____
7. Do you see any sugar cubes in this picture? Yes_____ No_____
8. Where? Right_____ Wrong_____
9. Do you see any powdered sugar in this picture? Yes_____ No_____
10. Where? Right _____ Wrong_____
11. Do you see a basin? Yes_____ No_____
12. Where? Right_____ Wrong_____

tbl

drawn it to make it look more like sugar?

10. Does the water really look like water to you? How could I have drawn it to make it look more like water?

11. Can you read the words here?

    What language is this? (English)

    What language is this? (Arabic)

12. If no to number eleven:

    Do you know anyone in the village who can read either English or Arabic?

    If yes:

    Could I ask you to take this to them and have them tell you what it says?

(Give them time to comply; while that is happening conduct another interview)

13. Once they return: Now, could you tell me what the picture is all about?

FLYER PRE-TEST

INTERCEPT QUESTIONNAIRE

Identifiers:					
Male ____	Age 15-20___	30-40___	Can read Eng___	Arabic___	Both___
Female ____	20-30___	over 40___	Cannot read Eng___	Arabic___	Either___

Show the flyer and ask the following questions:

1. Do you see any salt in this picture? Yes_____ No_____
2. Where? Right_____ Wrong_____
3. Do you see any water in this picture? Yes_____ No _____
4. Where? Right_____ Wrong_____
5. Do you see a little boy in the picture? Yes_____ No_____
6. Where? Right_____ Wrong_____
7. Do you see any sugar cubes in this picture? Yes_____ No_____
8. Where? Right_____ Wrong_____
9. Do you see any powdered sugar in this picture? Yes_____ No_____
10. Where? Right _____ Wrong_____
11. Do you see a basin? Yes_____ No_____
12. Where? Right_____ Wrong_____

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FLYER PRE-TEST

UNAIDED SIGNIFICANCE

Identifiers:				
Male ____	Age 15-20___	30-40___	Can read Eng___	Arabic___ Both___
Female ____	20-30___	over 40___	Cannot read Eng___	Arabic___Either___

Show the picture for a few minutes and explain you want to know what they see in the picture?

1. What do you see in this picture. Could you just describe what you see? (Write down response)
2. What do you see in the red area?_____
   the yellow area?_____
   the green area?_____
3. What is this thing here (basin)?
4. Can you tell me what these (sugar, bottle caps) are? What do you think it has in it? How many do you see in the yellow area?
5. And what are these (bottles)?
6. What do you think this is (liquid coming out of bottle)?
7. What do you see on this side of the picture (show back side)?
8. Does the salt really look like salt to you? How could I have drawn it to make it look more like salt?
9. Does the sugar really look like sugar to you? How could I have

13. Do you see something going into the basin? Yes_____ No_____

14. What? Right_____ Wrong_____

15. What are these (bottlecaps)? Bottlecaps_____

Other_____

16. How many of these (bottlecaps) do you see? 3 _____

Other_____

millet--the grain considered to be the most filling. With general shortages of ingredients for sauces, the dryness of steamed millet may contribute to a lack of appetite.

When mothers leave for the nearer swamps to work, they usually take their infants with them, leaving behind the pap that had been prepared for their infants not yet on a full diet. In time of plenty, leftovers are given to the animals; however, older children eat these left-overs which are dried and recooked in times of scarcity. Some of the diarrhea during this season may be due to the contamination of the food that is left precooked and uncovered in a humid, hot, and contaminated environment.

The Keneba villagers asserted that all mothers continue to breast-feed for at least two years, and that coitus is taboo during lactation. Their customary practices, however, prove these to be oversimplifications. Thomson's study indicates that only 14 of the 44 children who were fully weaned during the time of the study had been breast-fed for at least two years. There appears to be a seasonal variation in the cessation of breast-feeding. A child born in the beginning of the year is likely to be taken off the breast earlier in light of the tendency for women to stop lactating earlier during the busy farming season (July-December). For example, a child born in January would be 18 months old by the beginning of its second rainy season, old enough to be fully weaned. The study reported that 7 out of 10 children taken off the breast during the agricultural peak (July, August, September) were all less than 21 months old.

A child's age determines the arrangements made for its care during the rainy season. Infants under six months accompany their mothers to the swamps, while older ones stay behind in the village. A mother sometimes works with the infant on her back, but mostly the infant is looked after by a "nursemaid" under a shelter near the farm. Nursemaids, who are generally female relatives aged 6-9 years, have general responsibility for one child (rarely two) for the duration of the farming season in return for free board and lodging. Infants and nursemaids are supervised in the village during the day by the old, disabled, or sick, with each superviser looking after no more than six children. Because some of the supervisers are relatively ineffective due to illness or infirmity, and responsibilities of nursemaids often extend beyond their capabilities, infants are less well-cared for when their mothers are farming. Sometimes mothers go for days without seeing their children properly as they must leave early in the morning and return after sunset.

Thus, seasons are seen to directly influence the patterns of child growth and mortality in Keneba. Adverse factors of shortage of food, high humidity, prevalence of disease, and absence of mothers who are working the fields are concentrated during the rainy season. The effects of these factors often depend on when the child was born in relation to the rainy season.

FLYER PRE-TEST

AIDED SIGNIFICANCE

Identifiers:				
Male_____	Age 15-20___	30-40_____	Can read Eng___	Arabic____ Both____
Female___	20-30___	over 40___	Cannot read Eng___	Arabic___ Either___

Give flyer to interviewee. Ask interviewee to listen to the tape and watch the drawing for you.

Do not point to anything in the picture during the recording. Do not answer any questions about the drawing. When the recording is completed, ask the mother to mix a solution like that described on the recording and record the mistakes she makes. The mother may use the drawing as a reference, but don't answer any questions about it for her. After she has mixed the solution ask her to explain the drawing to you. Note any mistakes she makes. Then ask her the following questions:

1. Did you understand what the radio said?

2. Was there something you did not understand?

3. Was there something you did not believe?

APPENDIX E

SUMMARY

of the

DEVELOPMENTAL INVESTIGATION

APPENDIX E

SUMMARY OF THE DEVELOPMENTAL INVESTIGATION

Because the results of the developmental investigation are so central to the design decisions reflected in this implementation plan, a brief summary of the most critical findings is presented here. Readers are cautioned that the statements below are highly generalized. Many constitute hypotheses still to be tested rather than facts to be accepted.

A. BACKGROUND DESCRIPTION OF THE GAMBIA (Much of the following information is drawn from Oyeymei Haffner, A New Geography of Senegambia, Banjul, 1981.)

The Gambia, situated on the west coast of Africa, forms a narrow band on either side of the River Gambia with a surface area of 11,600 square kilometers (24 km in width x 487 km in length). The Gambia is almost entirely surrounded by Senegal except for the short Atlantic coastline on the west coast. The population in 1980 was estimated at 631,000 of which over 80% lived in rural areas outside the capital city of Banjul and its periurban communities (Annual Report, Medical and Health Dept.). The poulation density of the country is 50 persons per sq. km making it one of the most densely populated countries in Africa. Children under five years of age account for 17.4% (109,794) of the population.

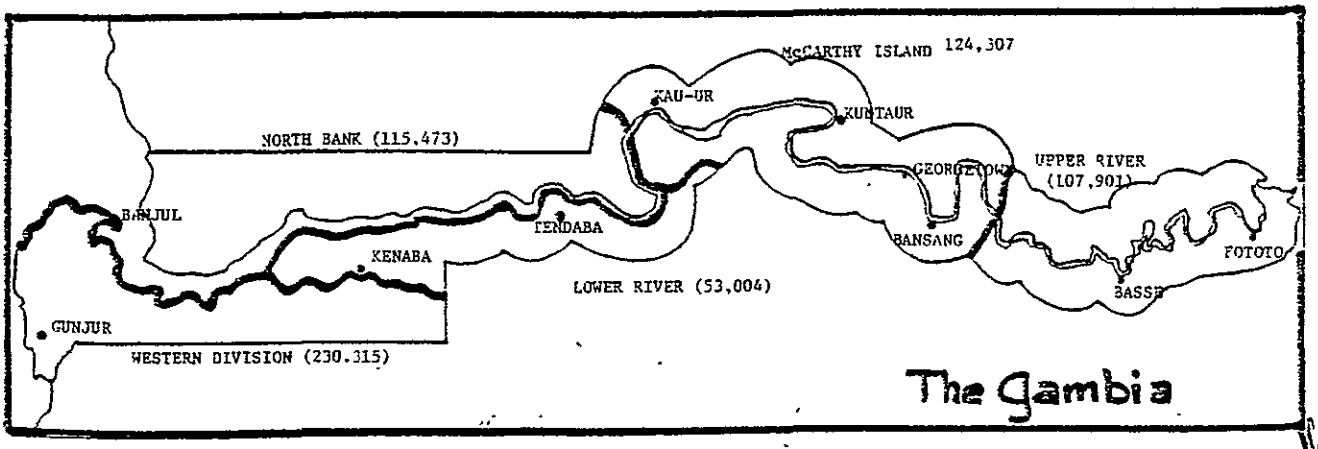
The last national census in The Gambia (1973) showed that 89.3% of the total population are native Gambians, with other Africans comprising 10.3%, and non-Africans making up the remaining 0.2% (0.2% unstated). Native Gambians belong to nine major ethnic groups, 42.2% are Mandinka, followed by Fula (18.2%), Wollof (15.7%), Jola (9.5%), Serahule (8.7%), Serere (2.1%), Manjago (1.3%), Aku (1.0%), Bambara (0.4%), and other Gambians (0.9%). Belonging to the wider Senegambian geographical and cultural region, the major ethnic groups in the country share much in common. They are characterized by hierarchical social and political systems ordered on the distinction between free-born and slave, founder and stranger, and the priority of seniors and men over juniors and women. Since the late 19th century, The Gambia has been predominantly Muslim and, as such, it is characterized by conservative values. A small, influential Christian community centered in the urban area shares many customs, values, and attitudes with the Muslim majority. The basic family unit is the extended family in which polygamy is frequently practised. Traditional values related to family and social relationships, family occupation, and views on moral issues play important roles.

Economically, The Gambia depends almost entirely on agriculture, with groundnuts (peanuts) accounting for well over 90% of total exports. Groundnuts have been the main cash crop

and major source of foreign exchange since the first part of the 19th century. Cotton, currently subsidized by the government, provides an additional export crop. Millet, rice and sorghum are the staple food crops. The emphasis on groundnut cultivation (primarily by men) has contributed to a decline in millet cultivation, as the two crops are competitive for land and labor. The decline in millet production has been accompanied by an increase in the cultivation of rice, primarily by women. The dominance of groundnuts, however, has major implications for the Gambian economy. Groundnuts are subject to sharp fluctuations in price on the world market and in production due to climatic conditions, which puts the economy in a vulnerable position. Also, the flow of cash is concentrated in the "trade season" which coincides with the dry season. Futhermore, the emphasis on groundnut cultivation has diverted production from other food crops so that the area is not self-sufficient in food. Consequently, food must be imported, especially rice.

The River Gambia, which has a depth of 2.5 meters at the eastern border and 25 meters at the entrance, is navigable for regional steamers (i.e., vessels not exceeding 23 meters in draft) to Fatoto, 560 kms from Banjul. There are about 33 wharf towns at which government vessels call. The roads in The Gambia generally follow the length of the country paralleling the river on either side (north and south), and carry limited bus and commercial lorry traffic. While the southern bank road is paved from Banjul to Basse, the northern bank road is laterite. Feeder roads linking remote settlements with these main roads have been and continue to be developed all over the country. During the rains, however, many of these smaller roads became impassable. The Transgambian Highway forms a link between the north and the south bank roads at Farafenni and Soma which proceed respectively to the northern region of Senegal (Dakar), and the Casamance of southern Senegal (Ziguinchor). There are no bridges crossing the river; rather, a number of ferries operate at various points along the river--Barra, Kerewan, Ferefenni, Kuntaur, Georgetown, Bansang, Basse--and are not always reliable. Although the number of cars registered has increased dramatically, their use is largely concentrated in the Banjul/Kombo area. A recent rise in petrol prices has further inhibited the widespread use of vehicles. The Gambia continues to be predominantly a pedestrian society where footpaths are widely used.

The following map illustrates the five Divisions of the country and identifies the principle population centers.



In July of 1981 The Gambia experienced a major coup attempt resulting in a significant loss of lives and a prolonged disruption of national life. One apparent result of the coup has been the announced confederation of The Gambia and Senegal called Senagambia. The specific implications of this confederation are not yet clear.

3. MRC's RESEARCH IN THE GAMBIA

The British Medical Research Council (MRC) laboratories in The Gambia at Fajara--originally a field station of MRC's Human Nutrition Research Unit--were established in the late 1940's to carry out research on various aspects of tropical medicine, particularly in rural communities. In 1949, MRC selected the village of Keneba some 100 miles away from Banjul (then Bathurst) for the construction of a field laboratory with living quarters to conduct entomological and medical investigations relating to the health and growth of young children. Keneba was chosen because of its relative isolation from Western resources, customs and values. Despite the construction of an all-weather road passing within 12 miles of Keneba, its traditional subsistence economy and manner of living still persist. Since 1950, MRC has conducted a series of studies on growth and the nature and causes of morbidity and mortality in young children using anthropometric, medical and sociological observations. Although Keneba by itself, and especially in light of MRC's longstanding presence there, cannot be presumed to represent The Gambia as a whole, it does typify many aspects of rural Gambian village life. MRC's Keneba studies continue to provide the best source of data on childhood health and illness in The Gambia. The following is a summary of several of these studies of particular relevance to the MM&HP project: 1) A.M. Thomson and W.Z. Billewicz, B. Thompson and R. Illsley, A.K. Rahman and I.A. McGregor, "A Study of Growth and Health of Young Children in Tropical Africa," Transactions of the Royal Society of Tropical Medicine and Hygiene, Vol. 62, No. 3, 1968; 2) B. Thompson and A.K. Rahman, "Infant Feeding and Child Care in a West African Village," Journal of Tropical Pediatrics, (September) 13, 3, 1967; 3) R.A.E. Barrell and M.G.M. Rowland, "Infant Foods as a Potential Source of Diarrheal Illness in Rural West Africa," Transactions of the Royal Society of Tropical Medicine and Hygiene, Vol. 73, No. 1, 1979; and 4) I.A. McGregor and A.K. Rahman, B. Thompson, W.Z. Billewicz and A.M. Thomson, "The Growth of Young Children in a Gambian Village," Transactions of the Royal Society of Tropical Medicine and Hygiene, Vol. 62, No. 3 1968.

The Gambia has distinct wet and dry seasons. The dry season (November to May) is characterized by low humidity and relatively cool temperatures. The rainy season (June to October) is marked by high humidity and temperatures. Rainfall, averaging 40 inches, varies from year to year. It reaches a peak in August and September and subsides in October and November. Agricultural

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activities are concentrated in the rainy season when all who are able are out working in the fields during the day. The rainy season is also referred to as the "hungry season" as the previous year's grain stocks become depleted and, usually by August, families become dependent on imported rice. It is also during the rainy season when disease is widespread, particularly malaria. Thus, the rainy season is characterized by high humidity, a relative food shortage, a concentration of disease and an intensification of agricultural activity.

Description of the Village (summary from A.M. Thomson et al., 1968). Keneba consists of mud huts with thatched or corrugated iron roofs with dirt paths dividing family compounds. The compounds are surrounded by savannah bush some of which is cleared for cultivation in nearby areas. Otherwise, salt flats and rain-fed paddies are a mile or two from the village, while additional rice fields are cultivated at tidal swamps some five to eight miles away. Most of the 800 people are Mandinkas and predominantly Muslim. A few are literate in Arabic; fewer in English. The man are polygamous and although the women are subservient, they are not kept in isolation. As the inhabitants are primarily agriculturalists, their farming and village activities are subject to the demands of seasonal change. Agriculture is concentrated during the rainy season and is sharply divided between sexes. While the men are responsible for growing groundnuts--their only cash crop and source of income--cultivating millet, sorghum, maize, and findo (a grass hay), the women are primarily responsible for growing and harvesting rice. Hand implements are used and there is no mechanized transport. The fields, which are several miles away, are prepared in May/June, transplanted in August/September, and harvested in November/December. Pregnancy, lactation, and even illness rarely excuse women from working the fields a job which is arduous at the height of the season. The women are also responsible for helping to cultivate other foods, preparing and cooking the food, cleaning and other domestic chores, and caring for their children.

Each family unit produces enough food for its own consumption, which is mostly vegetarian. Cattle, sheep, and goats are killed for food only on feast days, and they give little milk. The villager's basic diet consists of rice and millet as staple grains, supplemented by maize and sorghum, some game and fish, garden produce, and leaves and berries from the bush. Groundnuts provide sauces. Food is plentiful during the dry season, but acute shortages are common half way into the rainy season, when agricultural work is at its peak.

Illness follows a seasonal pattern, being more prevalent during the rainy season (June-October). Malaria and other vector-borne diseases rise to maximum proportions during the latter half of the rains, while falling to low levels as the dry season advances. Malaria is particularly serious in young children whose passive immunity has been lost and active immunity

not yet acquired. Filarial worm infections, respiratory and alimentary disorders, and heavy loads of roundworms are common during the rainy season. Whooping cough is often epidemic, septic lesions are widespread, and anemia is common. "In young children it (anemia) shows an interesting cyclical pattern which is probably related to seasonal variation in the onslaught of malaria." (p. 337) Other indefinite illnesses are often encountered and, in many cases, viruses are suspect as the pathogenic agents.

To the people of Keneba, disease is ultimately attributable to Allah's will. Most causes of disease are believed to have a mystical origin. "Delirium indicated that the Devil was inside the patient and therefore recovery might be undesirable....Thus, instead of taking curative action, they considered it appropriate to take measures which would ease the sufferer's passage to paradise." The villagers have faith in their local general practitioners, some of whom had various specialties. While witch doctors exorcise spirits and "Bad Satans," soothsayers (or marabouts, as they are also known) are fortune-tellers and herbalists. They prescribe jujus--writings from the Koran enclosed in a leather case and worn on the body; and they prepare herbal medicines or rinses such as naso, a verse from the Koran written on a slate with a mixture of soot which is rinsed off and either drunk or used for bathing. Jujus and such rituals as the preparation of food for charity, prayers at the Mosque, or women's dances are considered preventive medicine.

Contact with Western medicine was found at the government dispensary and the research laboratories. However, the supplies of the former were old-fashioned mixtures; and treatment at the labs was administered only in cases of great need--and the research staff was not always there. Although the villagers seemed not to have any objections to Western medicine (excepting the Imam's family whose sons were potential Imams, or religious leaders). They were reluctant to give up their traditional remedies.

Feeding and Child Care (summary from Thompson & Rahman, 1967). Infants are breast-fed soon after birth and on demand for the first few months. Wet nursing by other lactating women is practised for the first few days and whenever necessary after that. Most infants are given watery pap--sometimes sweetened and/or with pieces of any available fruits (mangoes, oranges)--at 4-5 months. Some don't start weaning until 7-8 months, but usually most are eating boiled rice at this age and working up to steamed millet, corn, or findo a month or two later. By 11 months, infants are given groundnuts and sauces. Most children are eating small shares of any food except for very hot dishes at the beginning of their second year.

Children commonly seem to experience a loss of appetite during the rainy season. This may be attributed to widespread illness and the monotony of meals which usually consist of

Weaning Food Contamination (summary from Barrell and (Rowland, 1979). Items of food are usually referred to with two names: the first indicating the staples, and the second the mode of preparation. The following list of foods was taken from the report on a study carried out in Keneba on the problem of bacterial overgrowth.

Mono: This is a thin gruel prepared by adding cereal to hot water. Millet, rice, maize, sorghum, or findo may be used. Sour milk, sugar, honey, baoba extract, fish or palm oil may be added.

Fajiringo: Rich grains are washed, steamed and boiled. The water is drained off and the grains steamed until dry. Groundnut sauce is frequently added and occasionally various leaf preparations.

Churo: Unpounded grains of rice are boiled and served with boiled water. A refinement is tekere churo, in which raw groundnuts and whole rice grains are pounded and boiled with salt.

Nyelengo: Millet or findo are pounded and steamed twice. Water is added during steaming. It is usually served with groundnut sauce.

Futo: This is prepared from millet and is steamed in a similar manner to nyelengo but uses more finely pounded grains. The final product is a dry powder which is mixed with water prior to consumption.

Nyankatango: This is a refinement of Fajiringo, in which the rice is steamed with pounded raw groundnuts, dry fish and shell fish and is flavored with locust bean seeds, chili peppers, and onions, or some combination of these.

Netto: Locust bean seeds, available only during the wet season, are mixed with unboiled water and occasionally flavored with sugar.

Barrell & Rowland's study showed that most of the food consumed by children in Keneba had a hazardous degree of bacterial overgrowth. "Even the more thorough cooking methods fail to produce an adequate improvement." While recommending that food be eaten immediately after preparation, the study suggests that even so, one third of the foods consumed in the rainy season would be contaminated. A study of netto, which is prepared with unboiled water, indicated that the well water in Keneba is contaminated with faecal coliforms. This same water which is used during the pre-cooking preparation of cereals was associated with traces of E. coli in monos after cooking. Samples of mono with sour milk added contained unacceptable levels of E. coli which seems to indicate that milking of cows and souring of milk is done under grossly unhygienic conditions.

The peak of diarrheal disease during the rainy season may be attributed in part to the high level of food and water contamination at this time of year. An additional factor leading to an increase in the degree of bacterial overgrowth in food consumed by children during the wet season is that food is likely to be prepared less often and carried over from one meal to another as mothers spend most of the day working in the fields. Although Barrell and Rowland concede that the effects of repeated consumption of contaminated food are speculative, they suggest that "the poor bacteriological quality of infant foods is a significant causal factor in the etiology of weanling diarrhea, even in a community where weaning almost exclusively entails the use of traditional foods in a cooked form."

C. DIARRHEA IN IN THE GAMBIA

The 1980 Annual Report of the Medical and Health Department places the infant mortality rate at 300 per 1000 population, and life expectancy at 32 years for males, and 34 years for females. Major medical problems include the following in descending order of reported case prevalence:

	Disease	1980 Total
1.	Coughs/Chest Pains	69,648
2.	Indigestion & Abdominal Congestion	68,165
3.	Malaria	60,014
4.	Muscular/Joint Pains	40,123
5.	Dysentry & Diarrhea	39,883
6.	Indefinite Fever	32,787
7.	Pneumonia/Bronchitus	30,783
8.	Scabies	24,954
9.	Eye Diseases	23,764
10.	Gonorrhea	17,444

The country demographically is characterized by high birth and childhood death rates. Infant and under-five mortality rates are very high, as illustrated in Table 1 below. These figures are from the MRC'S field study area of Keneba and are probably the most accurate figures available.

TABLE 1

Mortality Rate Per 1000 Births in Keneba

1951-1975

Years	Infants (¼-12 months)	One- to Four-Year-Old Children
1951-55	245	83
1956-60	231	101
1961-65	309	105
1966-70	298	124
1971-75	174	109

Cause-specific mortality data is limited, but data on the causes of death derived from surveillance activities and special surveys provide an indication of the important causes of death. The specific sources from which this information was obtained include the following:

- "Statistical Medical and Health Report," prepared by The Gambian Ministry of Health, Labor, and Social Welfare, 1979.
- "Surveillance in The Gambia," prepared by epidemiologist Dr. Harry Hull for the Gambian Ministry of Health, Labor, and Social Welfare.
- "National Tetanus Survey," conducted by Pap John Williams and Harry F. Hull, M.D.s.
- "Primary Causes of Death in Banjul," a combination of classified correspondence to the new code (mostly in-patients from the Royal Victoria Hospital and from Westfield Clinic), 1979.

Gastroenteritis and malnutrition accounted for 21.3% of all deaths for children under five years of age in Banjul in 1978. This represented the most important specific cause of death for this age group. Based on 1979 figures from hospitalized patients of all ages in Banjul, diarrhea was said to account for 7.6% of all deaths in 1979. Based on information extracted from the death register in Banjul in 1979, gastroenteritis accounted for 8.7% of all deaths (infants -10 percent, children - 16 percent, and adults - 5 percent).

Diarrhea is one of the most frequent reasons for visits to dispensaries and health centers. Among patients of all ages visiting health facilities in 1979, 34,963 visits were for dysentery and diarrhea. This represents nearly 8% of all outpatient visits. The reported visits from dispensaries and sub-dispensaries may be an inaccurate reflection of total visits

primarily because of incomplete or delayed reporting. Even though possibly underestimated, this data indicates a relatively high incidence of visits to the dispensaries for diarrhea.

The incidence of diarrhea ranges from 19 per 1,000 population in Kambo St. Mary, to 173 per 1,000 population in Banjul. Although the differences between these areas may be a result of reporting procedures, the overall high incidence of dispensary visits for diarrhea indicates both a high diarrhea incidence in children and a high utilization of dispensary services for this illness.

The strong seasonal variation in diarrheal prevention is clearly demonstrated in the following table.

Seasonal Variation of Infant Mortality Rate
Per 1000 Births in Keneba

Months	Infant Mortality Rate
November-January (Dry Season)	260
February-April (transition)	175
May-July (wet season)	179
August-October (wet season)	378

Diarrhea was consistently one of the two illnesses mothers, interviewed during the developmental investigation, mentioned first, and described it as especially frequent during the rainy season (June-October) and particularly at the start (sangifallow) and the finish (kunchamarrow) of the rains. All mothers believed diarrhea to be a serious illness from which their babies could die. Following a parallel investigation the evaluation team from Stanford concluded: "The recognized killer diseases are diarrhea and a disease called kris in Wollof and jarala in Mandinka. This latter disease may be cerebral malaria, though we will leave medical inferences to those qualified to make them. Malaria is recognized, too, and is said to lead to kris/jarala. The reader is advised that 'disease,' 'causes,' and 'treatments,' are English words struggling to convey the spiritist associations that make up the framework of most villagers' thinking."

Mothers differentiated between less and more serious types of diarrhea, with blood and/or mucus in the stool signaling the more serious (dysentery). Frequent and watery stools were most commonly named as symptoms of common diarrhea. Most mothers also mentioned weakness, dryness, and sunken eyes as symptoms. Some named vomiting, fever, refusal to eat, and a distended stomach.

Mothers were also able to distinguish different degrees of dehydration or dryness in babies sick with diarrhea. Mandinkas use the words baloboritali, balodjiatta, labaratta, lanfuta, and facetta to describe general drynness and djiatta for severe

dryness. In Wollof, lapa is the word for general dryness, raga for severe dryness, djerx for dry and drained, and iyoi for weak. Fulas call dryness fodjugol, bandomakohori, and fodji, and severe dryness xorogol. The word for dry in Serrehule is ahatengkareng.

Most women attributed the dryness to the diarrhea although some of the symptoms seemed related to a general wasting associated with malnutrition.

A variety of causes of diarrhea were cited by mothers, with no single explanation predominating. Many women mentioned dirt -- dirty food, dirty water, dirt in the environment in which the baby lives -- as a cause of diarrhea. In the same vein, some mentioned inadequate care of the child in general, careless preparation of a baby's food, and breast milk and flies carrying dirt as causes. Spiritual and magical reasons were also given frequently.

Most women said that they usually sought treatment at the government health centers and dispensaries when their babies had diarrhea. Marabouts and local healers were also mentioned as sources of treatment, but they are more likely to be sought for such maladies as fits, nightmares, when the child is believed to be bewitched, when his fontanelle is sunken and hard or his hair is falling out, and when the child is not improving from treatment given at the health center. Local pharmacies were also named as occasional sources of treatment.

The Stanford evaluation team reports that the mother's first response to an episode of diarrhea is village-based healers. Health centers are used when local remedies fail, except where health centers are nearby and then they may be used much earlier in an episode. The penetration of the Expanded Village Program of Immunization (EPI) has apparently increased the confidence in the formal health system.

The most common treatment at the health center and dispensary, according to the women interviewed, is a white mixture (probably kaolin) and pills or tablets (probably sulphadimidine). A brown mixture (guanamycin) was mentioned in some groups. Several mothers mentioned being advised at the health center to mix S/S in boiled water. Injections were named in one group. In describing "water medicine," which seemed usually to refer to liquid kaolin, the words lekindyang (Fula) and boridjioo (Mandinka) were used.

Among the treatments prescribed by local healers for diarrhea are a dose of straight palm oil and tea made from guava leaves and sweetened with sugar. Certain marabouts are said to treat the illness by preparing a special naso; writing a verse from the Koran in chalk on a slate, rinsing the slate with water, and having the child drink the water. Additional information on these and other traditional remedies has been collected by the Stanford evaluation team.

Most of the mothers claimed to take their sick infants for treatment immediately upon the onset of illness, though some acknowledged that they wait until the infant is restless and others, that if the clinic is faraway, they wait a day. Some consult a marabout before going. When asked what they do for the baby before seeking outside treatment, women in 6 of the 11 groups interviewed reported giving the baby salt and/or sugar in boiled water, presumably prescribed by the health staff but rarely mentioned by women as a treatment their babies receive at the health center. Some mothers, primarily Fulas, give the sick baby sour milk. Giving codeine and liquid mixtures from local pharmacies was also mentioned, as was giving herb teas. Not a single mother said she gave her baby a laxative or purgative (nandal), which are given only for constipation. In general, mothers acted surprised to be asked this question, and some volunteered that nandal would only increase the diarrhea.

With regard to the feeding of a baby with diarrhea, all groups responded that mothers should continue to breast-feed the baby. Most women felt they should continue to feed the child other food as well. Most also said the child should be forced to eat if he refused, though some thought he should be left alone.

Of the types of food the baby should be fed, coos pap was mentioned the most. Eggs, oranges, and rice were mentioned next most frequently. Cow's milk or Cerelac, tea and bread, and Fanta or Sprite were mentioned by some. Salt and sugar in water was mentioned once, as were potatoes and Ovaltine. Of the foods that should not be given to a baby with diarrhea, rice was mentioned most frequently. Other foods that the women said shouldn't be given to the sick infant included bananas, oranges, and sour milk.

D. DIARRHEA TREATMENT

The Government of The Gambia and the medical profession recognize the critical importance of fluid replacement to treat dehydration caused by diarrhea. This is done primarily by oral sugar-electrolyte solutions and limited use of intravenous fluids. The method of treating diarrhea varies depending on the setting and will be described during a discussion of each therapy site.

Royal Victoria Hospital, the main hospital in the country (located in Banjul), treats children with diarrhea, primarily in the general in-patient pediatric ward. For most children, therapy begins with oral rehydration (OR) solution. This solution is prepared from UNICEF-supplied packets by the nurses on the pediataric ward. The contents of six packets are added to ten litres of boiled water. This solution is used for older children (usually 12 months), but it is diluted to half-strength with water when used for younger children (resulting in a solution with 30% of the expected concentration of salts and glucose). The solution is ordered by the pediatrician, roughly

in proportion to the degree of dehydration and the size of child, but the volume is usually one litre over the first 24 hours (for a one- to two-year-old child). The child's mother administers the solution with little nurse supervision and without records of actual consumption. Children are discharged when the pediatrician feels that they are no longer dehydrated.

Other medications may be used to treat the diarrhea, including kaolin and combination products which include antibiotics and kaolin. The pediatricians generally feel that these are not necessary but may help symptomatically and/or are expected by patients. If diarrhea is continuing at the time of discharge, mothers are told to prepare a solution with a pinch of salt, a scoop of sugar, a squeeze of lemon and a glass of water and give it to the child. Packets of OR solution are not given to mothers to use at home.

Dispensaries and some sub-dispensaries may treat diarrhea with solutions prepared from UNICEF packets. Children may be kept in the dispensaries during the day for supervised oral rehydration therapy. On discharge, mothers are told to prepare S/S solutions in their home. Kaolin is also distributed by dispensaries.

It is established Medical and Health Department policy to promote home-mix S/S rehydration fluids at the home level. This policy has been defined clearly in the Health Worker's Manual for the Management of Acute Diarrhea in The Gambia (see Appendix A).

When queried about the S/S medicine for diarrhea, many mothers responded that they had prepared the solution themselves at home. The solutions they reported, with one woman usually speaking for the entire group, include the following:

- 1 tsp. salt and 1 cube sugar to 1 litre of boiled water
- 5 mls sugar and 1 pinch salt to 1 glass of boiled water
- 1 pinch sugar and 1 pinch salt to 1 Julpearl* bottle of water
- 1 tsp. sugar and 1/2 tsp. salt to 1 cigarette cup of boiled water
- 1 tsp. sugar and 1/2 tsp. salt to 1 small glass of boiled water
- 1/2 tsp. sugar and 1 pinch salt to 1 small glass of boiled water
- 1 pinch sugar and 1 pinch salt to 1 litre of boiled water
- add equivalent pinches of S/S to boiled water

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* A local carbonated beverage.

- 1 pinch salt and 3 pinches sugar to 1 Julpearl bottle of boiled water
- 1 tsp. sugar and 1 pinch salt to 1 litre of boiled water
- 1 1/2 cubes sugar and 1 pinch sugar with hot water
- 1 tsp. salt and 1 pinch sugar with hot water
- 1 packet of salts from clinic with 1 litre of boiled water

As indicated by these reported solutions, most women answering correctly identified that more sugar was needed than salt. In only one case was more salt recommended by a woman who explained that more sugar would increase the diarrhea, and several of the solutions call for equivalent amounts of sugar and salt. Most of the solutions call for boiled water, although the volume of water varied significantly.

The most commonly mentioned containers for measuring water were the larte (1 litre) plastic drinking cup and the Julpearl bottle (one third litre). Other containers mentioned were small glasses, cooking oil (e.g. Niani) bottles, British cigarette tins, mineral bottles, and tomato paste cans.

Most mothers said they had a teaspoon and bottle cap in their homes. With all of the above, however, there were few opportunities to verify the reported information by having the women actually produce a bottle, cup, spoon, etc. to show the interviewers.

Mothers were also asked about the availability of the ingredients necessary to make a S/S solution, with the following results: Coarse salt is usually available at a cost of from 4 to 12 bututs* a cup, but fine salt is rare or not available at all. Granulated sugar is usually available in most villages at a cost of 50 to 60 bututs a cup; sugar cubes, costing 6 bututs for 4-5 cubes, were less availabe but not uncommon. Oranges and mandarins were usually available in most villages, but limes were available in all. Papayas, bananas, and coconuts tend to be much less commonly available, especially in the villages furthest up-country, and are always more expensive.

When making S/S solutions, mothers said they stored the liquid in a covered basin or bottle with a stopper, and let it cool before administering it. They then would give it to the baby, usually using a cup and spoon, whenever the baby needed a drink over one day's time. When asked how much of a Julpearl bottle filled with water a baby could drink in one hour, most mothers said a baby could probably drink half of it but no more.

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* 2 bututs is equal to approximately 1 U.S. cent.

When asked whether they thought a S/S solution was a good medicine for diarrhea; most answered yes. But when asked what they thought was the best medicine for diarrhea, the women consistently named the white mixture (kaolin). Tablets were mentioned as second best, along with the S/S solution. Other answers included injections, guanamycin, codeine, and paracitamol.

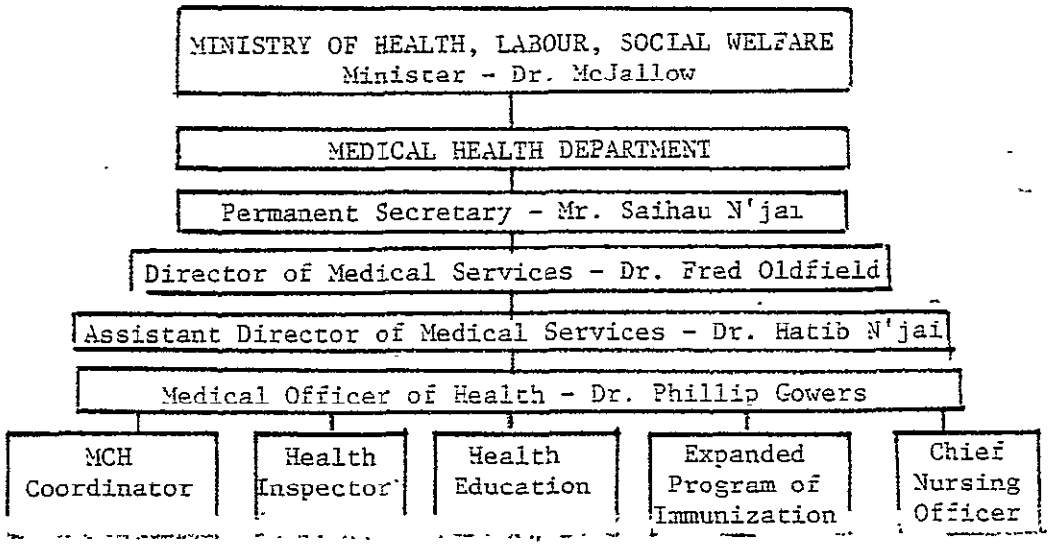
In all cases, mothers said they know that a diarrhea medicine is working when the diarrhea stops.

A series of mixing trials using bottlecaps as measures of sugar and salt and a local soda bottle as a measure of water were conducted using tape recorded mixing instructions. The full results of the trials are described in Appendix B but the most relevant conclusions are listed below:

- It was necessary for mothers to hear the recorded instructions several (3-4) times to remember and collect all the ingredients needed.
- Counting the correct number of bottle caps did not prove to a major problem.
- Heaping of bottle caps with both sugar and salt was common. This practice increases the concentration of both sugar and salt above optimal levels.
- Selecting a litre container was less a problem than the tendency to fill it to less than the capacity with water.
- Stirring the solution was often either omitted altogether or insufficient to properly dissolve the sugar and salt.
- The suggestion to add fruit juices created consternation among several mothers because fruit is not easily availabile.

E. THE MINISTRY OF HEALTH

The health care system is under the direction of the Division of Health and has the following administrative positions:



The health care services provided by the Ministry of Health, Labour and Social Welfare in The Gambia consist of two government general hospitals: Royal Victoria Hospital in Banjul (240 beds), and Bansang Hospital (100 beds); long stay hospitals for mental, tuberculosis and leprosy patients (120 beds); a home for the old and infirm; and 12 health centers (104 beds), 17 dispensaries, and 55 sub-dispensaries throughout the country. The Ministry additionally operates 8 mobile Maternal and Child Health (MCH) teams that service 68 localities, some of which are based at the dispensary and sub-dispensary areas and others where no health services are available.

Whereas health centers and dispensaries are regularly staffed and operate daily, sub-dispensaries are visited once a week by the dresser-dispenser (a trained, state registered nurse) and his tema from the nearest dispensary, who provide medial services to the patients in the area. The principal health personnel working at the rural level in The Gambia include:

Dresser/Dispensers (D/D	-	Responsible for primary treatment
Auxilary Nurses (AN)	-	Assist Dresser/Dispersers
Community Health Nurses	-	Travel regularly to surrounding villages to provide treatment as well as health education (56 in the country)
Nurse Midwives (NM)	-	Maternal child care focus (29 in the country)

Health Inspector (HI)	- Prevention, and environmental sanitation inspectors. Travel extensively. (50 total, 15 in rural areas)
Orderlies	- Maintenance of Centers, dispensaries, and sub-dispensaries (90 in country)
Health Laborors (HL)	- Community well construction
Traditional Birth Attendants (TBD)	- Village-based traditional midwives who have been given modern training
Peace Corps Health Volunteers (PCV)	- Expatriate volunteers often working with health centers or dispensaries to non-dispensary communities. A new group of volunteers to arrive in February/March (25 in country)
Leprosy Inspectors (LI)	- Itinerant group of professionals who distribute leprosy control medication throughout the country (15 in country)

In addition to these individuals, a Primary Health Care Action Plan is currently underway, prepared by the MOH with assistance from WHO. The national program calls for the selection and training of 200 village primary health care workers (PHCW) by 1986 to provide services for 200 villages with 400 people or more, which are not currently being serviced by a health unit. Presently, 18 PHCWs have been trained and 18 more are now in training. The program is now limited to the Lower River Division. This primary health care strategy is focused on the prevention and control of endemic communicable diseases such as malaria, diarrhea, schistosomiasis, yellow fever, measles, and other childhood diseases.

The Department of Medical and Health Services of the Ministry also runs the EPI, an Epidemiology Department, the Maternal and Child Health Unit which trains Traditional Birth Attendants and Community Health Nurses, a Health Inspectorate, and a recently constituted Health Education Unit.

The government health services are supplemented by several missions and private institutions. The British Medical Research Council runs a hospital (40 beds) at Fajara and a Nutrition Center field unit at Keneba. A private hospital, Westfield Clinic in Serrekunda, provides 28 beds.

F. RADIO

Reported radio listenership by mothers was consistent with the information gathered from antecdotal sources. Most mothers interviewed said they had access to radios. Those with access said they listen to Radio Gambia in the evenings between 8:00 p.m. and 9:00 p.m. The most popular programs are reportedly the "Women's Programme," "Agric-Bantaba" and "Jatta Kendeya" (the health program). However no women were observed listening to the radio in any of the field investigation visits, although many men with radios were observed. Unfortunately, it was not possible to visit rural village compounds to observe listening habits during prime time. However, based on observations of other sources, there appears to be some question about whether mothers really have access to, or control of, the radio, or if the men actually control the radio while women listen peripherally.

There seemed to be evidence that radio broadcasts were an important topic of discussion at the traditional bantaba (male forum) meetings. This suggests that radio is an important source of village information, and that the role of men may be extremely important to the information received by women.

There are two radio broadcasting facilities in The Gambia, Radio Gambia and Radio Syd. Radio Gambia is the national radio station, and is divided into five sections

- Rural Broadcasting
- School Broadcasting
- English and General Programs
- Local Language and Islamic Programs
- News and Current Affairs

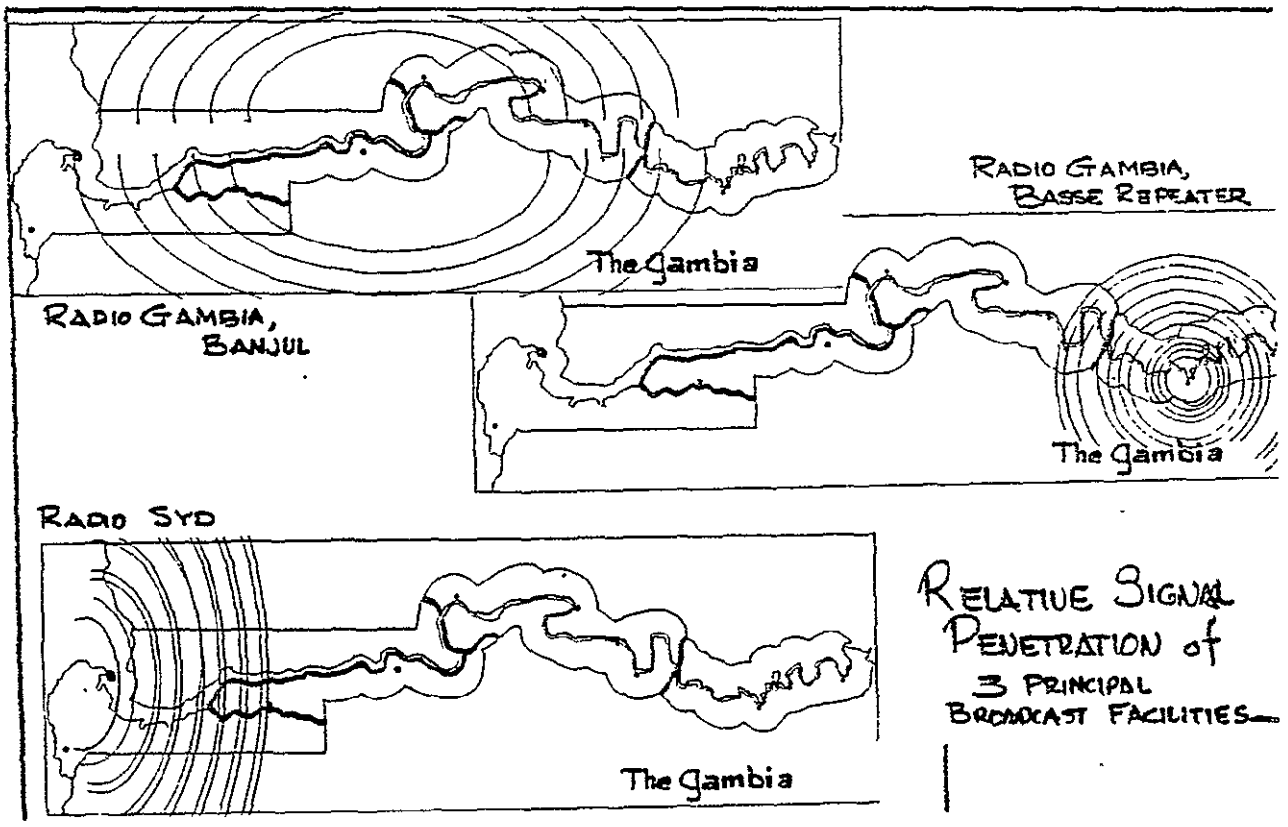
Rural Broadcasting has been given responsibilities for the MOH programs. Presently, it coordinates regular half-hour weekly programs directed at rural areas from the Departments of Agriculture, Animal Health, Fisheries, Health, Community Development, Forestry and Cooperaties.

The following graph illustrates the basic equipment now available at the national radio facility.

Studios	Turntables	1st Generation Ampex Reel to Reel Tape Decks	2nd Generation Ampex Reel to Reel Tape Decks	Mixer	Microphone
• Large Choral Studio	1	2	2	4 Channel	1
• Direct Broadcast Studio A	2	2	1	Working	1
• Small Studio B		2	1		1
• New Studio (to be built)	(2)	(2)	(1)	(6)	
• New Studio (to be built)	(2)	(2)	(1)	(6)	
• In Maintenance	3	6	8		

It should be noted that Radio Gambia has no telex facility or cassette recording capability. The two new studios planned for 1982-83 are contributions of the West Germany Government. A new broadcast channel was originally scheduled to open in 1982, but due to political decisions following the recent coup attempt, only one broadcast channel will be used in the foreseeable future.

Radio Gambia's main production facility is outside Banjul, its main transmitter is in Bakau and the only repeater station is located in Basse (see map below).



RELATIVE SIGNAL PENETRATION of 3 PRINCIPAL BROADCAST FACILITIES

The Radio Gambia broadcast format is basically 15- to 45-minute educational programs in various languages interspersed with music. A complete list of prime-time programming has been prepared by the project staff. Radio Gambia also has limited commercial advertising, similar to that described below at Radio Syd. Broadcast hours are 6:30 a.m. to 2:00 p.m. and 5:00 p.m. to 12:00 a.m. daily. The facility shuts down from 2:00 p.m. to 5:00 p.m. due to lack of funds.

Radio Syd is a more commercial, urban and tourist-oriented, private facility. Programming includes a music program in Swedish, a jazz show (Sunday), an English magazine show and various music programs interspersed with spots. They also simulcast the Radio Gambia newscasts in all the local languages. At least half of the commercials are produced overseas with cigarette, soap, soft drink, and battery promotion dominating the advertisement time. (Berek Battery has a strong campaign going on presently in which they have set their musical theme with a basic script allowing the station to put the spot in many languages with the same music. They sometimes play the spot in two different languages back-to-back which sounds very effective.) Local production consists basically of voice over music in various languages. Spots last between 30 and 60 seconds.

An inventory of radio reception was taken in Banjul, Bansang, and Basse, in order to assess what stations could be heard and what programming they used. During a field trip project staff also talked with rural women about radio usage and observed local listening habits.

In Banjul, only four stations, Radio Gambia, Radio Syd, Radio Enturr and Sen-National, were received during the day, while 16 stations could be heard during prime-time (7:00 p.m. - 9:00 p.m.). These stations included two Senegalese stations, the two Gambian stations (Radio Syd and Radio Gambia), Radio Guinea and various Spanish-speaking stations from the Canary Islands.

Up-country the number of stations received was noticably fewer. In Bansang, located in the center of the country, only ten stations could be heard during prime-time. The strongest signals were from Radio Guinea and Sen-National (from Senegal) and from Sierra Leone. Less strong but still audible were Radio Gambia and Radio Enturr (from Senegal).

In Basse, in the northern part of the country, the number of stations which could be heard dropped to eight. Radio Guinea and Sen-National had the strongest signals. A critical problem is that Radio Gambia's signal drops dramatically after 8:00 p.m. although it is strong at 6 p.m. and excellent at 7:30 a.m. A visit to a Radio Gambia relay station located in Basse revealed that at 8:00 p.m. Radio Morocco's signal cuts into and drowns out Radio Gambia. The Basse engineer then switches off microwave contact with the station and plugs his personal radio, tuned to

Radio Gambia, directly into the transmitter on a slightly different frequency. The signal is weak, but audible. The engineer reported that when the signal fails he plays cassettes. Both the cassettes and radio belong to the engineer. This correlates with focus group reports that Radio Gambia can frequently not be heard up-country, especially in the far eastern part of the country.

Programming specifics on the Senagalese stations was difficult to ascertain but they are reported to use commercial spot announcements. Sen-National is particularly respected by Gambian radio professionals for their educational work in agriculture.

G. PRINT MEDIA

Investigation of print media in the rural areas showed a remarkable lack of any printed matter. Literacy rates are very low. Arabic seems to be the language most likely to be read by a small cadre of Islamic students in almost every village, and traditional tribal languages have no indigeneous written form. Posters, signs, calendars, etc., are very uncommon in family compounds, but compound walls are sometimes used as practice slates by children doing their school work or demonstrating their newly acquired writing and drawing skills.

Printing facilities are very limited and no large-format off-set press is available locally. Printing in Dakar is possible and prices seem to be reasonable, although concrete experience with commercial firms there is lacking.

H. KEY FINDINGS

1. Marked seasonality of diarrhea, seasonal significance of malnutritional, and relative infrequency of rapid dehydration from watery diarrhea during the wet season.

2. Extensive penetration of rural areas by health services as evidenced by 85% of mothers with young children reported to have EPI cards.

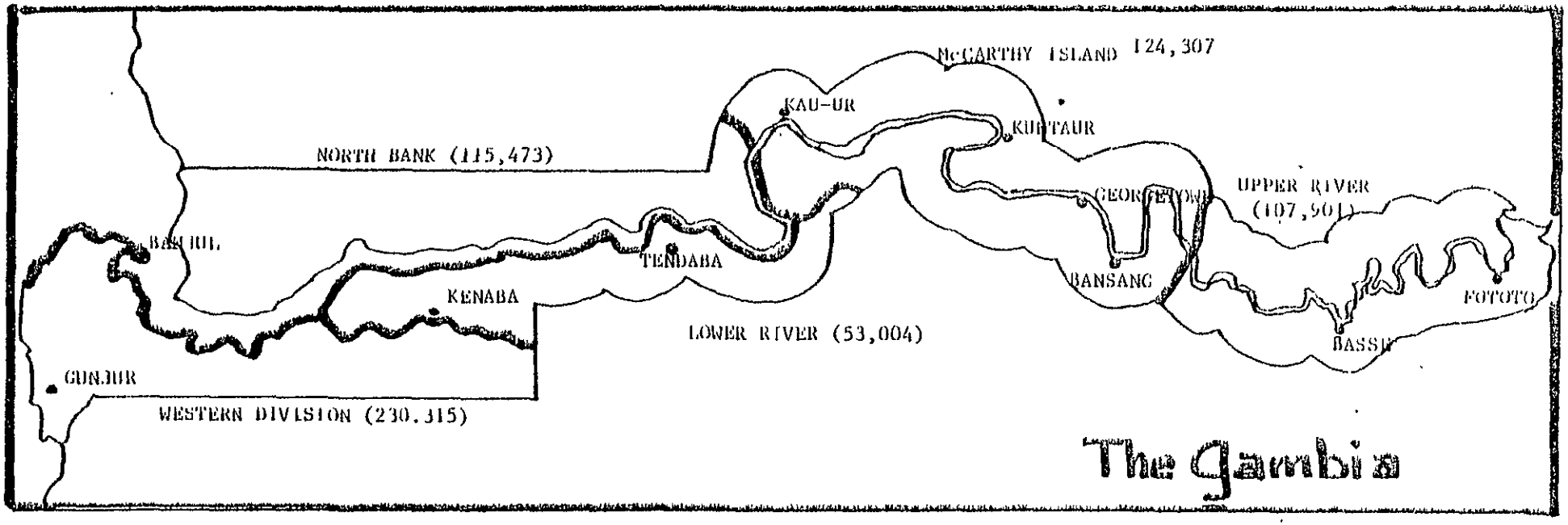
3. Apparent prevelance of "dryness" as a concept used by rural people to describe general wasting which carries symptoms similar to diarrheal dehydration.

4. Relatively widespread, but highly variable, understanding of how to mix the S/S rehydration fluid.

5. Marked absence of print material in rural areas, with Arabic as the most prevelant written language.

6. Despite poor signal quality of Radio Gambia in approximately one quarter of the country, the relative acceptance of Radio Gambia as an important source of information in rural areas, especially among men.

7. Lack of systematic studies on tribal and linguistic characteristics of major ethnic groups in the country. Continued dependence on antecdotal, and often semmingly superficial, generalizations about local culture.


McCARTHY ISLAND 124,307
KAU-UR
KURTAUR
NORTH BANK (115,473)
GEORGETOWN
UPPER RIVER
(107,901)
BANJUL
TENDABA
BANSANG
KENABA
FOTOTO
LOWER RIVER (53,004)
BASSE
GUNJUR
WESTERN DIVISION (230,315)
The Gambia

XD AAQ 003 A

APPENDIX C

FORMATIVE EVALUATION REPORT - HONDURAS

XD-AAQ 003-A 17
ISN=36833

Second Formative Evaluation

SEGUNDA EVALUACION FORMATIVA
DE LA TERCERA ETAPA DE LA CAMPAÑA EDUCATIVA

of the Third Stage of the Educational Campaign

DIVISION DE EDUCACION
MINISTERIO DE SALUD PUBLICA

PROCOMSI-EQUIPO DE IMPLEMENTACION
FEBRERO 1982 - DRAFT

192

INTRODUCCION

Al finalizar la tercera fase de la Campaña Educativa se juzgó oportuno realizar una segunda Evaluación Formativa del impacto de la campaña para poder diseñar la cuarta fase. (Ver Anexo 1, "Actividades de la Evaluación Formativa"). La meta de la evaluación era contestar unas "preguntas claves" que permitieran identificar los temas de las próximas fases. (Ver Anexo 2).

En particular se buscaba determinar el impacto de las cuñas radiales de la tercera fase, el puesto que LITROSOL ha obtenido en las creencias del proceso del tratamiento de la diarrea infantil, las actividades de las madres sobre la lactancia materna prolongada y los problemas de la distribución de los materiales gráficos.

La Evaluación se realizó por medio de varias técnicas:

1. Entrevistas individuales con la Auxiliar de Enfermería del Centro. (Ver Anexo 3, Ejemplar Guía).
2. Entrevistas individuales con 30 madres: (Ver Anexo 4, Ejemplar del Cuestionario).

   10 en Municipios
   10 en Aldeas de fácil acceso
   10 en Aldeas de difícil acceso
3. Conteo de materiales gráficos. (Ver Anexo 5)
4. Entrevistas informales con Guardianes, Parteras y/o Alcaldes Auxiliares en cada sitio visitado.

Al mismo tiempo se buscaba identificar familias que pudieran servir de personajes en la fotonovela y en el calendario.

Las entrevistas y el conteo fueron realizadas por los miembros del equipo en cuatro Municipios, uno en cada área de la Región Sanitaria No.1, durante una semana (del 1 al 4 de febrero). Cada persona hizo

entrevistas en la cabecera municipal, en una aldea de fácil acceso y en una aldea de difícil acceso. Trataron de hablar con diez madres en cada sitio, de las cuales por lo menos cinco habían usado LITROSOL.

En total se entrevistaron 148 madres, 90 que habían usado LITROSOL y 107 que tenían radio funcionando. Además se entrevistaron 4 Auxiliares de Enfermería y hablaron informalmente con 7 Guardianes, una Partera y un Alcalde Auxiliar.

Los resultados óptimos demuestran una vez más que la Evaluación Formativa, sencilla pero sistemática, es un instrumento invaluable de retroinformación que permite realizar decisiones claves de la campaña educativa. Sin ella sería difícil tener la seguridad sobre qué tipo de modificaciones y por qué motivo deben hacerse las mismas. El costo (Ver Anexo 6) es tan cómodo que justifica plenamente la inversión.

1. LITROSOL Y EL TRATAMIENTO TRADICIONAL DE LA DIARREA INFANTIL

Varias preguntas fueron incluídas en la Evaluación para tratar de averiguar qué creencias y comportamientos se han desarrollado a nivel del tratamiento folklórico de la diarrea que se pueda aprovechar para la cuarta fase de la campaña. Se preguntó sobre:

a. Uso de LITROSOL con otros medicamentos
b. Uso de LITROSOL según la causa de la diarrea
c. Uso de LITROSOL para otras enfermedades además de la diarrea
d. Confusión con otros medicamentos

A. <u>La concepción de la diarrea y su tratamiento tradicional</u>

En general, las respuestas motivadas por el cuestionario reforzó y amplió la información obtenida en la Investigación de Audiencia que fue realizada antes del comienzo del proyecto (julio 1980). Los resultados muestran que el tipo de tratamiento que una madre usa

para tratar la diarrea depende de la causa de la diarrea que ella diagnostique. Cada tratamiento tiene un proceso caracterizado por varias etapas en las que progresivamente se complican los elementos del tratamiento como la preocupación de la madre.

Primero, si el niño es menor de dos años las madres generalmente piensan que una diarrea leve está causada por "movimiento" o sea que le están saliendo los dientes, siendo esta la causa de la diarrea. Esta diarrea es considerada "normal". Generalmente la madre da remedios caseros o pastillas, pero a veces no hace nada porque considera que la diarrea parará en tres días, a veces con tratamiento y a veces sin tratamiento.

Si la diarrea no para o si está acompañada de varios otros síntomas, la madre empieza a preocuparse más pues considera que la diarrea tiene otras causas y busca otro tratamiento. Las madres más "modernas" o madres que tienen más acceso a los Centros de Salud, muchas veces acuden a ellos en este momento. Las otras madres generalmente buscan a alguien (vecina, abuela, sobador, curandera) que le confirme su diagnóstico de la diarrea: lombrices, empacho, ojo y otras causas. Las charlas con las madres indican que ellas clasifican en "otras causas" las diarreas infecciosas o del estómago y deben ser tratadas con medicinas comerciales, especialmente antibióticos comprados en las pulperías. Las causas "tradicionales" (lombrices, empacho y ojo) tienen tratamientos muy definidos. Para tratar las lombrices las madres purgan al niño con una medicina comercial (Padrax, Lombrisaca, etc.) a veces acompañada con remedios caseros como el ajo, agua de ruda, apazote, hoja blanca, etc. Si la madre vive cerca del Centro o considera que el episodio de lombrices es serio, lleva al niño al Centro mientras que "ojo y empacho" siempre son tratados en la comunidad fuera del control y la supervisión del personal formal. Las madres dicen: "la ciencia no

Best Available Document

cree en eso y los médicos nos regañan". Para tratar empacho, las madres mandan a sobar el niño y lo purgan. Para tratar el ojo pasan el huevo y rocían al niño con varias soluciones como una mezcla de guaro, tabaco o ruda y otras mezclas caseras.

Si estas diarreas se complican o empeoran, las madres tratan de ir al Centro de Salud o al Hospital. El momento de ir depende del acceso al Centro, los fondos de la familia y la actitud de los padres por la medicina tradicional o científica.

Se quiso averiguar si las madres consideran que hay una diferencia entre obradera y diarrea. Aunque no se preguntó a todas las madres parece que en general la mayoría de ellas consideran que la obradera son defecaciones suaves. La diarrea es "pura agua" y más peligrosa, según sus propias palabras. Se debe usar la palabra diarrea en vez de obradera en las cuñas de la cuarta fase.

B. Uso de LITROSOL como parte del tratamiento

La Evaluación indica que la mayoría de las madres están usando LITROSOL como un paso en el proceso de tratamiento de la diarrea. Estas madres prueban LITROSOL y si no para el episodio diarréico, buscan otra medicina. Puesto que frecuentemente lo usan en el segundo o tercer día de la diarrea y esta se para, muchas veces atribuyen a LITROSOL el que les haya parado la diarrea. En general las madres piensan que LITROSOL es para la diarrea suave, talvés por el uso de la palabra "obradera" en las cuñas radiales y afiches, mientras que consideran que tienen que buscar otra medicina para las diarreas más graves, por ejemplo, disentería, "ojo", "empacho" o lombrices. Unas pocas madres dijeron que se podía usar LITROSOL como purgante aunque no encontramos ninguna madre que lo hubiera usado así.

Sin embargo, esta Evaluación nos muestra un grupo significativo de

madres que en realidad entienden por qué se debe usar LITROSOL aunque no pueden explicar el concepto de la deshidratación. Las propias palabras de las madres muestran su entendimiento:

"LITROSOL es igual que el suero. Alimenta y fortalece al niño con diarrea".
"Hay que tomar LITROSOL mientras el niño tiene diarrea para que no se desnutra".
"Es para sostener el niño con diarrea. Para que no se deshidrate".
"LITROSOL es para los niños con diarrea. Para que no se debiliten cuando tienen diarrea".
"La diarrea da debilidad, deshidratación, como dicen "ellos" ("ellos" son la radio y los médicos).
"LITROSOL es para sostener el niño y darle ánimo. La medicina es para parar la diarrea". (Una madre que recibió LITROSOL y caolín en el Centro de Salud).
"Es como alimento cuando tiene diarrea, para que no se deshidrate".
"Es bueno para la deshidratación. Vuelve el ánimo y el apetito cuando tienen diarrea los niños".
"Ayuda a sostener la vida mientras tiene diarrea".

La mayoría de estas madres mencionadas arriba dijeron que se debe usar LITROSOL "mientras que el niño tiene diarrea". Esta respuesta demuestra adicionalmente que dichas madres han logrado un nivel significativo de entendimiento de para qué sirve LITROSOL.

Este cambio se puede acreditar principalmente a las cuñas radiales de la tercera fase que repetían que LITROSOL da ánimo y apetito al niño con diarrea y al hecho de que las cuñas también eran complementadas por las explicaciones del personal adiestrado. En general, las madres que mejor entienden el uso de LITROSOL son aquellas que tienen contacto con la radio y con una persona adiestrada (Guardián o Auxiliar de Enfermería). Este hecho confirma lo que se

ha dicho y demostrado en otros programas de comunicaciones: no es solo una intervención (un panfleto, una cuña radial o una persona) la que puede lograr cambios de comportamiento sino un conjunto de intervenciones que están coordinadas e integradas.

También existe otro pequeño grupo de madres que piensan, debido a las cuñas radiales, (da ánimo y apetito) que LITROSOL es un reconstituyente y lo utilizan como suero vitaminado para alimentar al niño (o persona mayor) aunque no tengan diarrea. Para evitar que esta creencia siga propagándose se puede enfatizar en el adiestramiento del personal comunitario que no entreguen sobres a las madres, si el niño no tiene diarrea.

C. LITROSOL y otros medicamentos

Una pregunta crítica para el programa (y para las madres) es, "se puede usar LITROSOL mientras se están dando otras medicinas?". La mitad de las madres dijeron que no se puede dar otras medicinas mientras se está dando LITROSOL, más que todo porque consideran que LITROSOL es una medicina y que no se debe mezclar una medicina con otra si el médico no la receta. La mayoría de las madres sigue el patrón de probar una medicina y si no da resultados, probar otra. Sin embargo, la otra mitad de las madres dijeron que sí se puede dar LITROSOL mientras se están dando otras medicinas. Muchas de estas madres dijeron esto porque recibieron de la Auxiliar de Enfermería o del Guardián de Salud, LITROSOL más caolín.

2. USO REAL DEL LITROSOL

A. Edad/Enfermedad con el uso de LITROSOL

Se entrevistaron noventa madres que habían usado LITROSOL. Casi todas estas madres lo usaron con niños menores de cinco años; la mayoría con niños menores de dos años. Solo nueve personas

lo usaron con niños mayores de cinco años o adultos. Casi todas las madres dieron LITROSOL cuando tenían diarrea, a veces acompañada de vómito y calentura. Pero también existe un número pequeño de madres que usaron LITROSOL para el desgano sin diarrea. Como en la primera Evaluación, en ésta aparecieron madres que dan parte del litro preparado o de LITROSOL a los otros niños de la casa aunque no tengan diarrea.

B. Obtención del LITROSOL

La mitad de las madres obtuvieron los sobres en el Centro de Salud; un cuarto de las madres del Guardián y algunas del Alcalde Auxiliar. Solo dos los obtuvieron de la Partera. Una madre había recibido su sobre de la Brigada Médica del Partido Liberal. En ningún caso fue vendido el sobre y muchas madres expresaron sorpresa cuando le preguntamos eso, diciendo no, "es gratuito del Ministerio".

C. Administración del LITROSOL

Una pregunta crítica de la Evaluación era si las madres están dando bastante LITROSOL para que el niño no se deshidrate o si solo están dando unas tomas al día. Los resultados indican que sí están dando bastante del suero preparado. Más de la mitad de los niños tomaron todo el litro a pesar que muchos de estos niños eran menores de un año. Casi todos los niños tomaron la mitad o más del litro. La mayoría de las madres que tienen niños, que no tomaron todo el litro, dijeron que se "llenó de agua". Esto parece indicar que le ofrecieron LITROSOL al niño pero éste lo rehusó porque ya no tenía sed, indicando que no estaba deshidratado. Sin embargo, varias madres dijeron que a los niños no les gusta el sabor; dato confirmado por dos Auxiliares de Enfermería. Una Auxiliar está recomendando que se le puede añadir un poquito de azúcar para mejorar el sabor.

Otras dos preguntas críticas fueron por cuántos días están usando LITROSOL y qué resultados está dando? Las respuestas refuerzan las conclusiones anteriores sobre el uso de LITROSOL en el proceso tradicional del tratamiento de la diarrea infantil. La mayoría de las madres usaron LITROSOL solo uno o dos días y respondieron que no siguieron dándolo porque les paró la diarrea. Sin embargo, es importante notar que por primera vez, una Evaluación Formativa logró que casi la mitad de las madres respondieran que le dió apetito al niño en comparación a la primera en la que las madres no lo mencionaron. Este cambio se debe en gran parte a las cuñas radiales. Solo una madre dijo que aumentó la diarrea y cinco madres dijeron no haber visto ningún resultado. Las respuestas probablemente son más favorables porque las madres sabían que nosotros tenemos interés en LITROSOL y no querían incomodarnos con comentarios negativos.

Se puede concluir que en general, las madres tienen una actitud positiva hacia LITROSOL. No lo consideran un tratamiento complicado y difícil como se temía al iniciar la campaña. Sin embargo, muchas madres tienen esa actitud porque piensan que LITROSOL paró la diarrea y es posible que no vuelvan a usarlo si la próxima vez que lo usen no tiene el mismo efecto.

Otros problemas de administración indicados por la Evaluación son:

- Muchas madres no saben por cuántos días se puede usar el LITROSOL.
- Otro grupo significativo dijo que solamente se puede usar LITROSOL cierto número de días, normalmente el número de días que ellas ya lo habían usado.
- Casi la mitad de las madres dijeron que no saben si hay ciertos casos de diarrea en los cuales no se debe usar el LITROSOL.

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D. Conclusiones y Recomendaciones

El objetivo principal de un programa de control de diarrea es lograr el uso contínuo de LITROSOL en cada caso de diarrea durante todo el tiempo que dure la diarrea, especialmente en los niños menores de dos años. Para asegurar este uso contínuo y prolongado de LITROSOL, se sugiere que estos puntos sean comunicados de la forma más eficaz posible (radio, personal comunitario, adiestramientos):

1. LITROSOL es para "sostener" la vida de los niños cuando tienen diarrea.

2. Se puede y debe usar LITROSOL con toda clase de diarrea, leve o severa y por cualquier causa de la diarrea aunque sea por infección, "empacho", "ojo", lombrices o cualquier otra causa percibida por la madre.

3. Se puede usar LITROSOL con otras medicinas porque LITROSOL es para sostener la vida del niño mientras que la medicina es para parar la diarrea.

Adicionalmente se sugieren estas recomendaciones:

1. En el adiestramiento para el personal formal e informal se debe enfatizar que no se debe añadir azúcar u otro elemento a la solución preparada.

2. Se debe orientar a las madres que si el niño necesita líquidos, normalmente le gustará el sabor del suero oral (LITROSOL). Por lo tanto se debe ofrecer durante todo el día aunque al principio el niño lo rechace. No hacerlo es correr el peligro que el niño comience a deshidratarse. Se debe decidir si este aspecto debe ser comunicado en un mensaje radial en la cuarta fase de la campaña.

3. USO DE LA HOJA-PAQUETE

Un resultado positivo de la Evaluación era verificar si había ocurrido un incremento en el uso de la Hoja-Paquete como medio de aprendizaje. Cuando preguntamos abiertamente "dónde aprendió a usar LITROSOL?", casi una tercera parte de las madres mencionaron la Hoja-Paquete. Muchas de estas dijeron que aprendieron de una persona adiestrada y de la Hoja-Paquete. Cuando preguntamos directamente: qué aprendió de la bolsita?, la mayoría dijo que aprendió algo (generalmente la preparación). El análisis del equipo indica que las madres usan la Hoja-Paquete para afianzar las instrucciones recibidas de la persona que les da el sobre, como también para aclarar las preguntas o confusiones que tengan sobre algún punto. Varias madres incluso dijeron que tenían que seguir las instrucciones para que LITROSOL le llegara al niño. Esta información fue transmitida directamente por la cuña radial que les indicaba cómo usar la Hoja-Paquete.

4. SISTEMA DE DISTRIBUCION DE AFICHES

En general el conteo muestra que los Afiches distribuídos directamente por el Proyecto todavía existen en muchas comunidades en más o menos buen estado. Se encontraron varios ejemplares de cada uno en todos los municipios, aldeas de fácil acceso, y hasta en aldeas de difícil acceso. Solo en el Area 3 la presencia de materiales gráficos fue pobre y no se encontró Afiche alguno en una aldea de fácil acceso y solo uno en la aldea de difícil acceso. Se nos informó que en algunos casos los Afiches fueron quitados durante la Navidad cuando tradicionalmente limpian y blanquean las paredes de las casas, pero una vez quitados, no fueron puestos de nuevo.

El conteo del nuevo Afiche de LITROSOL que está siendo distribuído

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por medio del sistema de distribución formal de la Región No.1, muestra que el sistema es aún deficiente en lograr la distribución de Afiches. Aunque la Región ha tenido los Afiches desde octubre, solamente habían llegado a dos de los cuatro sitios visitados. En uno de estos sitios los Afiches acaban de llegar y hasta ahora se estaban distribuyendo al personal comunitario. Esto significa que el sistema formal de distribución de la Región es capaz de distribuir los materiales pero que requiere una considerable cantidad de tiempo para hacerlo. Esto puede significar la desarticulación de la campaña educativa en la medida en que esta depende de que los diversos materiales se encuentren a tiempo en el campo para ser complementados por los mensajes radiales. La situación se haría grave si fueran los sobres de LITROSOL los que no llegaran a tiempo para que el personal comunitario pudiera trabajar.

Se recomienda:

Empezar la distribución de los sobres y Afiches para el personal comunitario con bastante anticipación a partir del mes en curso.

5. RADIO

La Evaluación Formativa de este año, como la del año pasado, también incluyó una acción sobre el impacto de los mensajes radiales, el uso de los mismos, la penetración de las emisiones, la capacidad de las madres para recordar los mensajes y la popularidad de las emisoras.

Las respuestas del cuestionario se pueden agrupar en las siguientes categorías:

A. <u>Penetración de los Mensajes</u>

De las 148 madres entrevistadas, 95 madres (64%) manifestaron haber escuchado por lo menos un mensaje de los emitidos por el Ministerio

de Salud en la semana anterior a la entrevistada; 32 de las madres dijeron no haber escuchado ninguno y 21 (14%) no tenían radio. Varias de las madres que dijeron haber escuchado algún mensaje, tuvieron dificultad para expresar los contenidos completos. Fue necesario entonces, como se hizo en la anterior Evaluación Formativa, hacer preguntas sobre mensajes individuales. El aumento del número de respuestas correctas indica que no es falta de aprendizaje de las madres sino más bien una incapacidad para generalizar.

B. Mensajes más recordados

Los mensajes que mayor impacto han causado, por el número de veces que se mencionaron, son: "El Testimonio" de las madres que han usado LITROSOL y "La Consulta para Todos". Las principales razones parecen ser:

a. Utilización de un lenguaje común (por ejemplo la palabra "delirio")
b. Mezcla de alegría y seriedad (testimonio y risa)
c. Mención de nombres comunes de aldeas, (por ejemplo, El Naranjo)
d. Participación de mujeres campesinas
e. Participación del Dr. Salustiano

C. Preguntas acerca de la diarrea, alimentación y pecho

Este tema lo abordaba la pregunta, qué dice la radio de la alimención durante la diarrea? Sobresale el impacto que ha tenido la cuña sobre alimentación (Consulta para Todos). La mayoría de las entrevistadas contestaron correcta y espontáneamente sin necesidad de insinuarles que hay que dar comidas suaves o que no hay que suspender la leche materna al tierno con diarrea. También contestaron correctamente las madres a las que hubo necesidad de ayudarles a recordar el mensaje preguntándoles qué dice la radio sobre el pecho y

los alimentos si el niño tiene diarrea.

En número de madres que contestaron en forma incorrecta (5 respecto al pecho y 2 respecto a comidas suaves) es mínimo comparado con las 101 madres que respondieron correctamente. Sin embargo, es necesario subrayar que solo una madre captó que "se debe dar comida suave después de un tiempo". Se puede concluir que la totalidad de este mensaje radial no fue recordado por las madres.

D. Preguntas sobre LITROSOL y su uso

1) Según la radio, qué resultados da LITROSOL?

Las madres entrevistadas respondieron así:

Da apetito	51	
Quita la diarrea	44	(casi todos en el Area 4 donde hay menos radios y menos personal comunitario adiestrado)
Da actividad	19	

Esto manifiesta que la cuña sobre el testimonio ha tenido efectos satisfactorios en el sentido que ha logrado comunicar el mensaje deseado. También es importante notar que 15 madres dijeron que LITROSOL es para la deshidratación. Un signo de que las madres ya manejan y conocen el término deshidratación.

Un total de 26 madres tuvieron expresiones tales como: "da mejoría, no desnutre, fortalece, es bueno y para la basca". Esto es indicativo de que un buen porcentaje cree que LITROSOL es suero vitaminado y lo están utilizando como reconstituyente. Por último, 19 madres dijeron no recordar lo que decía la radio.

2) Dónde se encuentran las instrucciones del uso de LITROSOL?

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Cuando se preguntó dónde se puede encontrar las instrucciones, el 75% de las madres contestaron sin vacilaciones que en la "bolsita" (Hoja-Paquete con instrucciones donde vienen los dos sobres de LITROSOL). Muchas de estas madres que habían usado LITROSOL dijeron que habían utilizado la bolsa para aprender cómo usar el LITROSOL.

Un total de 79 madres contestó correctamente, 29 no sabían dónde encontrar las instrucciones y 32 lo atribuyeron a otra fuente (radio, Auxiliar, Alcalde, Guardián). Si bien la radio ha sido un medio eficaz para permitir a muchas madres saber dónde encontrar las instrucciones, sin embargo ha sido la oportuna coordinación de gráficos, radio y distribuidor, la que ha permitido hacer que las madres utilicen la bolsita como fuente de consulta en caso de olvidar las instrucciones completas.

3) Cuántas botellas de fresco hacen un litro?

Se encontró que en las Areas 3 y 4 existe la creencia que dos botellas hacen un litro, mientras que las madres del Area 1 y 2 no tuvieron mucha dificultad para contestar esta pregunta. Esto es comprensible porque en estas áreas los mensajes son emitidos casi a nivel de saturación por las emisoras locales.

El total de madres que contestaron la pregunta fue el siguiente:

Correcto	58
Incorrecto	49
No sabe	36

Esta pregunta de medida también fue hecha en la Evaluación de septiembre de 1981. Casi todas las madres contestaron correctamente. Incluimos la pregunta en esta segunda Evaluación para medir el nivel de retención de mensajes radiales de la

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audiencia meta después de un tiempo largo. Los resultados indican que las madres olvidan información muy rápido si no tienen la ocasión de ponerla en práctica. Las charlas con las madres permite deducir que muchas de ellas nunca han tenido que hacer uso de esta información porque son pocas las que no tienen acceso a un envase de tamaño litro.

Adicionalmente se quiso averiguar si la audiencia meta está confundiendo LITROSOL con otros medicamentos anunciados en la radio. Por lo tanto se preguntó, "ha escuchado anuncios por la radio sobre otros remedios para la diarrea?" Las respuestas de las que dijeron "si" a esta pregunta fueron tan abundantes que hasta mencionaron remedios que no se anuncian por la radio. Un total de 27 madres dijeron no recordar ningún producto, pero el resto mencionó un total de 12 productos que si se anuncian y 8 remedios que no. La mayoría de las madres utilizan estas medicinas en todos los casos de diarrea y pueden encontrarse en las pulperías de los lugares donde se realizaron las entrevistas.

La pregunta se complementó con otra interrogante: "Quién cree usted que puso esos anuncios?" La mayoría de las madres no pudieron responder esta pregunta. Ellas no se encuentran familiarizadas con los nombres de los laboratorios o empresas que producen y/o anuncian por radio los medicamentos populares. Las respuestas obtenidas son las siguientes:

No sabe	85
Farmacias	2
Laboratorios	2
Médico Privado	3
Ministerio de Salud	15

El hecho de que haya un número de madres no despreciable que considera que estos productos son anunciados como medicamentos provistos por el Ministerio de Salud puede ser una de las causas de por que dichos medicamentos tienen tanta demanda a nivel rural.

5) Emisora más escuchada

Al consultar a través de qué emisora escucharon los mensajes, el mayor número (57) dijeron que por HRN, 28 por Radio América, 24 por Radio Oriental, 15 por Radio Paraíso y 11 por Radio Satélite. Hay que hacer notar que en el Area 3 y 4, Radio América pierde por una diferencia mínima: HRN= 27, Radio América= 26.

También hubo bastantes madres en las Areas 3 y 4 que solo mencionaron Radio América. Esto nos indica que es necesario seguir utilizando esta emisora principalmente al inicio de la campaña de la cuarta fase.

De las emisoras regionales, Radio Danlí ocupó el primer lugar de audiencia seguida por una pequeña diferencia por Radio Paraíso. Radio Latina y Radio Sonora no fueron mencionadas en ninguna de las entrevistas.

F. CONCLUSIONES

Las cuñas radiales han producido impacto aunque todavía existe un gran número de personas a afectar, debido a las fuertes creencias tradicionales, recomendaciones médicas que contradicen las recomendaciones del Programa, remedios caseros y comerciales que existen en las comunidades. A pesar de eso, las cuñas han logrado comunicar lo esperado, principalmente "La Consulta para Todos" y los

"Testimonios" sobre qué resultados tiene LITROSOL. En tercer lugar, queda clasificada la cuña "Seguir las Instrucciones" con la observación de que no ha sido muy clara en lo que se refiere a buscar la vecina para que les ayude a leer. Debería decir: "busquemos a una vecina que sepa leer".

1. Volver a utilizar, principalmente la cuña que habla sobre el número de botellas que hacen un litro.
2. Se debe continuar utilizando Radio América ya que la muestra indica que tiene el mismo nivel de penetración y audiencia que HRN en ciertas áreas de la región.
3. Si deberá tomarse muy en cuenta el hecho de que nadie menciona escuchar a Radio Latina. Si Radio Latina y Radio Sonora no son escuchadas, deberán suprimirse y ahorrarse el gasto económico que representan.

6. COSTUMBRES Y CREENCIAS DEL AMAMANTAMIENTO

La Evaluación Formativa buscaba conocer y analizar que creencias o costumbres de las madres son inapropiadas para elaborar mensajes acerca del amamantamiento prolongado.

A. Edad para Despechar

1) Mejor Edad:

A la pregunta de la mejor edad para despechar a un niño, las madres se dividen en dos categorías, las que opinan que la edad apropiada es un año (Areas 1 y 3) y las que opinan que dicha edad es de 18 meses a 2 años (Areas 2 y 4). Esta distribución arroja un promedio de 16 meses como la mejor edad para despechar al niño, según la opinión de las madres.

Hay que notar que dentro de esta edad subyace la creencia de que al varón se le debe quitar el pecho más pronto que a la niña. La razón por la cual las madres tienen esta opinión es porque creen que después del año la leche de las madres es "pura sangre de la madre". Esta hace que el niño tenga "demasiada sangre" en el cuerpo. De ahí que hablen de la "sangre fuerte" del niño. La niña, por el hecho de ser mujer y tener en la adolecencia el desarrollo hormonal que le permite menstruar, mantiene un balance de sangre que el varón no tiene. De ahí que no sufran las frecuentes hemorragias nasales que según las madres sufren los muchachos varones cuando trabajan en el campo bajo el sol. Consecuencia: la madre no debe prolongar el amamantamiento del niño más allá del año de edad.

Aunque había una gran concordancia en esta creencia, no parece ser que su aplicación en la vida práctica sea tan rígida como lo expresan los términos de la misma creencia. En varias instancias se encontraron casos en los que la madre había amamantado a los niños varones por más de un año.

Las razones que las madres exponen para afirmar que la edad antes mencionada es la mejor edad para despechar al niño son muchas y variadas, algunas con visos de contradicción. Dos Areas (2 y 4) coinciden en las razones alrededor de la leche materna y su calidad: es más barata, es más nutritiva, ayuda a que los niños crezcan fuertes y más sanos, se la considera la mejor leche. Algunas afirman que simplemente les da lástima quitarles el pecho tan temprano y se autocalifican por esto de "alcahuetas". Una razón de fondo también apareció en repetidas ocasiones y es el hecho de que amamantar hasta esta edad les ayuda a retardar el próximo embarazo.

Las otras dos Areas (1 y 3) coinciden más bien en razones de

tipo negativo. Se pueden agrupar en aquellas madres que afirman que los médicos les han dicho que solo amamanten hasta los 6 meses, razón que está íntimamente ligada a la creencia de que, después de los 6 meses, la leche materna es más espesa y no sostiene al niño: la leche es "mala e irritada". Parece que la creencia fuera la manera de explicar el consejo-orden del médico de parar el amamantamiento a los 6 meses. Algunas madres opinan que el niño de esta edad ya está en capacidad de comer de todo y que por lo tanto se le puede despechar. La mayoría coincide en afirmar que la leche es "mala" si la madre sale embarazada de nuevo, y que por lo tanto es necesario despechar al niño.

2) Pecho, 2 años?

La Evaluación de esta etapa buscaba encontrar las posibles objeciones que tuvieran las madres para aceptar un mensaje que las estimulara amamantar a los niños hasta los dos años. Se deseaba encontrar las razones, especialmente de tipo cultural, que hicieran o no aconsejable dicho mensaje.

Las madres tuvieron varios tipos de respuestas que pueden agruparse en categorías. Las principales, desde el punto de vista, de por qué no amamantarían durante tanto tiempo son las siguientes:

a) Calidad de la leche: las madres piensan que la calidad de la leche se deteriora a medida que el niño crece y que después de cierto tiempo, especialmente hacia los 12 meses dicha leche materna se vuelve débil y hasta mala. Esta creencia se hizo presente en tres de las cuatro áreas.

Está relacionada con la creencia universal de que una

madre que amamanta y queda embarazada debe inmediatamente dejar de amamantar. Las razones están relacionadas a la calidad de la leche. Esta se debilita, se "ensucia", se pone rala y deja de pertenecer al que amamanta; pasa a ser del nuevo ser. Si una madre insiste en seguir dando pecho el que amamanta se tulle, se desnutre y le da diarrea. En los peores casos se pone tan mal que muere.

b0 Las madres volvieron a mencionar la creencia de que demasiado pecho enferma especialmente al niño varón y lo hace suceptible de hemorragias, más tarde en la adolecencia.

- El niño se independiza: madres de dos áreas opinan que el niño mayor de un año y antes de los dos años ya puede defenderse solo. Los caracteriza el hecho de que puede comer solo y por lo tanto no requiere pecho.

- Efectos negativos sobre la madre:
  Dos tipos de razones aducieron: la primera, que la madre se termina por el amamantamiento prolongado, opinión de las madres de un área. La segunda, que el amamantamiento tan prolongado se hace muy pesado, algunas mencionaron que el niño a esa edad es muy inquieto y muerde el pecho.

- Prohibición Médica: Finalmente unas madres de un área se manifestaron que no lo hacían porque se los había prohibido el doctor. Esta razón se relaciona con el hecho de que en no pocos casos, la comunidad médica enfatiza no continuar la lactancia mterna después de 6 meses.

B. PROBLEMAS DURANTE EL AMAMANTAMIENTO

Las madres experimentan varios tipos de problemas mientras dan pecho a los niños, ya sea porque los han padecido ellas mismos o porque lo manifiestan haberlos oído a otras madres padecer. La mayoría de

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estos problemas se resumen en dos clases:

- La insuficiente producción de leche que las obliga a despechar a los niños o buscar alimentos suplementarios.
- Las diferentes afecciones del pecho tales como hinchazón del seno o del pezón, heridas en el pezón, resequedad, irritaciones, etc.

Hay una tercera circunstancia que es considerada como problema. Cuando las madres salen embarazadas aún con niños de temprana edad, los despechan y tienen que sustituir la leche materna por leche de vaca o en polvo, ambas muy caras para la economía familiar campesina.

Otras madres de dos áreas se quejaron de sufrir molestias de tipo general tales como debilidad, malestares, etc. Algunas madres mencionaron el hecho de que la leche materna transmite a los niños algunas enfermedades.

C. Conclusiones

En general se verificó un alto índice de madres que de hecho ya amamantan en forma prolongada, siendo las edades de más de 18 meses y un año las primeras categorías con el mayor número de madres (60 de 148). Le sigue de cerca el grupo de madres que despechan entre los 13-18 meses (26 madres).

Esto parece indicar que los mensajes sobre lactancia materna dirigidos a las madres del área rural no ameritan recomendar el amamantamiento prolongado sino en estimular a las madres a que mantengan y continúen haciendo la práctica que actualmente realizan. Se aprovecha así el hecho de que pocas veces son felicitadas por las buenas prácticas que hacen, mientras siempre son regañadas por los errores. El Dr. Salustiano será el personaje indicado para hacer este papel.

Convendría más bien divulgar y promover recomendaciones que estimulan la producción de la leche más tiempo y que ayuda a que no se interrumpa la lactancia. Estos mensajes podrían ser:

- Prácticas para producir suficiente leche más alimentación
- Técnicas para amamantar
- Prácticas para evitar pezones escoriados
- Estimular el amamantamiento por más tiempo en los varones haciéndole notar que sus creencias sobre hemorragias nasales no se derivan de la leche materna

Estos mensajes pueden ser reforzados con mensajes sobre higiene personal que puedan complementar el cuidado del pecho, la protección del niño y de la madre.

Para las madres que suspenden la lactancia materna antes del año de edad, convendría incluir unos mensajes que resalten el valor nutritivo de la leche materna, las ventajas para el niño durante su crecimiento, sus propiedades inmunológicas, etc.

Se encuentra finalmente el problema de la comunidad médica. Es difícil sino casi inútil, estimular a las madres a un amamantamiento prolongado si la comunidad médica está diciendo lo contrario. Se daría un conflicto de información que terminará por desorientar a las mismas madres que intentamos orientar. Debe definirse una política oficial del Ministerio que oriente esta práctica a un solo criterio.

Se requiere adicionalmente introducir en el curriculum de las Escuelas de Medicina y Enfermería dichos criterios, como la información de los mismos, a médicos y personal Auxiliar de Enfermería que actualmente trabaja en la Región Sanitaria No.1 en primera instancia y el resto del personal nacional a través del Programa de Control de Diarreas.

7. ENTREVISTAS A AUXILIARES DE ENFERMERIA

Se entrevistaron 4 Auxiliares de Enfermería localizadas así: 3 en Cesares y 1 en Césamo para que nos dieran su opinión con respecto a:

- Problemas observados en el Programa de Rehidratación Oral en el Centro de Salud.
- Problemas detectados en el manejo del Programa por el Personal Comunitario.
- Suministro de Sobres de Litrosol.

Las respuestas dadas a dichas interrogantes se resumen en los siguientes puntos:

A. Problemas que han tenido en desarrollar el Programa?

- No ha rehidratado en la clínica.
- Algunas madres no piden LITROSOL porque dicen que no les llega a los niños y porque es salado.
- Las madres creen que es para parar la diarrea..
- Estuvo 2 meses sin papelería.
- No quiere rehidratar en la clínica.
- En la Alcaldía dicen que LITROSOL es vitamina y que es para la gripe.

B. Problemas que ellas han detectado que las madres tienen en la preparación y administración del Suero Oral.(LITROSOL).

- Las madres creen que es vitamina.
- Las madres no dan agua, sólo suero.
- A los niños no les gusta, les da vómito.
- Solo algunas personas creen que es reconstituyente.

- Las madres no tienen un litro.
- No botan el sobrante del litro preparado.

C. Problemas que tiene el Personal Comunitario en la Implementación de la Hidratación Oral.

- Utilizan la Hoja de Referencia para otras enfermedades.
- No entendieron el adiestramiento (Chichicaste)
- No les dicen a las madres que no usen el biberón.
- Se quejan porque hay que hervir el agua.
- Les dijeron que usaran 4 tazas de agua.
- No tienen muy claro el concepto de deshidratación.

D. ¿Cuántos sobres debemos programar para el año para cada Guardián y Partera?

- 200 sobres (Chichicaste, Oropolí, El Porvenir)
- 300 sobres (Nueva Armenia)

E. ¿Qué le gustaría aprender en el adiestramiento del Programa de este año?

- Reconocer un niño deshidratado.
- Que le expliquen el Afiche de Proceso.
- No entiende la fórmula para el cálculo de líquido.
- Si hay casos de diarrea en que no sea eficaz T.R.O.
- Lactancia Materna.
- Más sobre diarrea.

F. ¿Qué aprende la gente por la radio?

- Preparación
- Para qué sirve

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- Administración del LITROSOL (poco)
- Que es bueno para la diarrea.
- Que es para la deshidratación y no para la diarrea.

G. Materiales Gráficos más útiles:

- Señales de Deshidratación (Oropolí, Chichicaste, El Porvenir)
- Todas coinciden en el afiche de la lactancia materna.
- El de Obradera, concientiza que el niño puede morir.

Sugerencias:

- Elaborar afiches de prevención: medidas higiénicas, seguir usando la Hoja-Paquete.
- Repetir la cuña: "3 botellas de fresco hacen un litro".

ANEXO 1

ACTIVIDADES DE LA EVALUACION FORMATIVA

ENERO 1982

1. Entrevista Auxiliar de Enfermería
   (Guía para la Entrevista con la Auxiliar de Enfermería)

2. Entrevista con 30 madres:

   10 Municipio
   10 Aldea de fácil acceso
   10 Aldea de difícil acceso

   (Instrumento Evaluación Formativa)

3. Conteo de Materiales Gráficos (Hoja de Control de Materiales Gráficos).

4. Entrevistas informales con el Alcalde Municipal y Alcaldes Auxiliares.

5. Entrevistas informales con Guardianes y Parteras.

ANEXO 2

PREGUNTAS CLAVES DE LA EVALUACION FORMATIVA

ENERO 1982

R A D I O

1. ¿Qué impacto ha tenido la campaña radial de la tercera fase?

   a. ¿Qué impacto han causado los testimonios sobre los resultados que da LITROSOL? ¿Qué indicaciones nos da para la próxima fase?

   b. ¿Qué impacto han tenido las cuñas sobre alimentación durante la diarrea? ¿Debemos cambiarlas y hacer algunas "cuñas de transición" para aclararlas?

   c. ¿Qué impacto ha tenido la cuña sobre la Hoja-Paquete en su uso educativo?

2. ¿En qué emisoras están escuchando las cuñas?

USO DE LITROSOL

1. Después de nueve meses de distribución de LITROSOL ¿qué creencias y comportamientos se han desarrollado a nivel del folklore que podemos aprovechar para la cuarta fase de la campaña?
   Areas de interés incluyen:

   a. Uso de LITROSOL con otros medicamentos.
   b. Uso de LITROSOL para varias clases de la diarrea.
   c. Uso de LITROSOL para otras enfermedades además de la diarrea.
   d. Confusión con otros medicamentos.

2. ¿Están dando suficiente LITROSOL para que los niños no se deshidraten?
3. ¿Están vendiendo LITROSOL?

AMAMANTAMIENTO

1. ¿Qué creencias y/o problemas tienen las madres sobre amamantamiento que podamos aprovechar para la campaña de la lactancia materna prolongada?

DISTRIBUCION

1. ¿Hasta dónde están llegando los afiches utilizando el nuevo sistema de distribución de la Región Sanitaria No. 1?

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ANEXO 3

GUIA PARA LA ENTREVISTA CON LA AUXILIAR DE ENFERMERIA

CESAR: _____

FECHA: _____

ENTREVISTADORA: _____

_____

1. ¿Cuántos sobres usó usted en el Centro de Salud en 1981? _____

2. ¿Cuántos sobres cree que va a usar en el año 1982? _____

3. ¿Qué problemas ha tenido en desarrollar el Programa de Rehidratación Oral?

_____

_____

_____

4. ¿Qué problemas se ha dado cuenta que tienen las madres en la preparación y administración de LITROSOL? _____

_____

_____

5. ¿Qué problemas o conceptos erróneos tiene el personal comunitario sobre preparación, distribución, administración, etc.? _____

_____

_____

6. ¿Cuántos sobres gastó el año pasado el personal comunitario? ¿Ha tenido que darles más sobres del Centro? ¿Cuántos? _____ No _____

7. ¿Cuántos sobres debemos programar por año para cada Guardián? _____ ¿Cada Partera? _____

8. ¿Qué le gustaría aprender en el adiestramiento del Programa de Control de la Diarrea de este año? _____

_____

9. ¿Como le gustaría que se impartiera? (Metodología) _____

_____

_____

10. ¿Qué información de la campaña de LITROSOL cree que la gente está aprendiendo de la radio? _____

_____

_____

11. De los materiales gráficos, ¿cuál le ha sido más útil? _____

_____

12. ¿Tiene otras sugerencias? _____

_____

_____

ANEXÓ 4

EVALUACION FORMATIVA

ENERO 1982

AREA: _____

NOMBRE DEL ENTREVISTADOR: _____

FECHA: _____

LUGAR: _____ 1. _____ MUNICIPIO

2. _____ ALDEA FACIL ACCESO

3. _____ ALDEA DIFICIL ACCESO

ACTITUD DEL ENTREVISTADO:

1. _____ ACTIVA
2. _____ REGULAR
3. _____ RESERVADA

---

1. ¿Ha escuchado usted en la última semana algún mensaje del Ministerio de Salud por la radio? (SI CONTESTA NO, PASAR A LA PREGUNTA 4).
   1.___SI 2.___NO 3.___ NO TIENE RADIO FUNCIONANDO
2. ¿Qué decía ese mensaje? (VERBATIM-PROFUNDIZAR) _____
   _____
3. ¿En qué emisora lo escuchó? _____
4. ¿Qué dice la radio de cómo se debe alimentar al niño cuando tiene diarrea?
   PECHO: (MENCIONA SIN PREGUNTAR) _____
   COMIDA SUAVE: (MENCIONA SIN PREGUNTAR) _____
5. Según dice la radio, ¿qué resultados da LITROSOL? (VERBATIM-PROFUNDIZAR)
   _____
   _____
   _____

6. Si se le ha olvidado cómo usar LITROSOL, ¿dónde se pueden encontrar todas las instrucciones?

   1._____ LA BOLSITA 2.____ NO SABE 3.____OTRO

7. Según dice la radio, ¿cuántas botellas de fresco hacen un litro?

   1.____CORRECTO 2.____ INCORRECTO 3.____ NO SABE

8. ¿Ha escuchado anuncios por la radio sobre otros remedios para la diarrea? ¿Cuáles? ¿Quién cree usted puso estos anuncios? _____

   _____

9. ¿Hay ciertos casos de diarrea en los cuales no se debe usar LITROSOL? ¿Cuáles? _____

10. Si su niño tuviera diarrea causada por lombrices, ¿qué remedio usaría?

    _____

11. Si su niño tuviera diarrea causada por movimiento ¿qué remdio usaría?

    _____

12. Si su niño tuviera diarrea causada por empacho, ¿qué remedio usaría?

    _____

13. Si su niño tuviera diarrea causada por ojo, ¿qué remedio usaría?

    _____

14. Si su niño tuviera diarrea por otras causas, ¿qué remedio usaría?

    _____

14.a. ¿Ha escuchado que están usando LITROSOL como purgante?

    _____

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14.b. ¿Ha escuchado usted que las madres usan el LITROSOL para algo más que la diarrea? ¿Qué _____

OBSERVACIONES: _____

_____

15. ¿Ha usado usted LITROSOL? (SI CONTESTA NO, PASAR A LA PREGUNTA 29)
1. ____ SI 2. ____ NO

16. ¿Quién se lo dio?
1. ____ CENTRO
2. ____ GUARDIAN
3. ____ PARTERA
4. ____ ALCALDE
5. ____ OTRO

17. ¿Cuánto le costó? _____

18. ¿Para qué lo usó? (EDAD DEL PACIENTE, SINTOMAS, VOMITO?) _____

_____

19. ¿Cuánto tomó el niño en un día? EDAD: _____
1. _____ 1/4 LITRO
2. _____ 1/2 LITRO
3. ____ 3/4 LITRO
4. ____ TODO EL LITRO

20. ¿Por qué no lo tomó todo? _____

_____

21. ¿Por cuántos días usó LITROSOL? _____

22. ¿Qué resultados le dio? _____

_____

23. ¿Qué otras medicinas y remedios caseros dio al niño? (PROFUNDIZAR PARA ENTENDER EL TRATAMIENTO DESDE EL INICIO HASTA QUE PARO LA DIARREA).

_____

_____

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24. En su opinión, ¿se pueden dar otras medicinas mientras está dando LITROSOL? ¿Por qué sí o no? _____

_____

_____

25. ¿Qué le dio de comer al niño cuando tenía diarrea? (PROFUNDIZAR PARA INCLUIR PECHO Y COMIDA) _____

_____

_____

26. ¿Dónde aprendió a usar LITROSOL?

1. ____ AUXILIAR
2. ____ GUARDIAN
3. ____ ALCALDE
4. ____ HOJA-PAQUETE
5. ____ PARTERA
6. ____ RADIO
7. ____ OTRO

27. ¿Qué aprendió usted de la bolsita que trae los sobrecitos? _____

_____

28. ¿Por cuántos días se puede usar LITROSOL? _____

_____

AMAMANTAMIENTO (EXPLICAR EL CAMBIO DE TEMA)

29. ¿Cuál es la mejor edad para despechar al niño? ¿Por qué (PROFUNDIZAR)

_____

_____

30. ¿Qué problemas tuvo cuando estaba amamantando? _____

_____

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31. ¿Ha escuchado a otras madres hablar de los problemas que tienen cuando están amamantando? ¿Cuáles son? _____

_____

31.a. ¿Amamantaría usted al niño hasta los 2 años? ¿Por qué sí, no? _____

_____

32. Pensamos poner unos avisos por la radio sobre amamantamiento. ¿Qué cree usted que a las madres les gustaría aprender? _____

_____

_____

AGRADECER LA COLABORACION DEL ENTREVISTADO

OBSERVACIONES: _____

_____

_____

_____

_____

ANEXO 5

CONTEO DE MATERIALES GRAFICOS

SITIO: _____ MUNICIPIO
_____ ALDEA FACIL ACCESO
_____ ALDEA DIFICIL ACCESO

AFICHE	SITIO	QUIEN LO PUSO

17
XD-AAQ-003-C
ISN-36836

APPENDIX G

WATER AND SANITATION COMPONENT EVALUATION

OCTOBER 4, 1982

MR. WILLIAM H. SMITH
Engineering Division
A.I.D.
Tegucigalpa, D.C.

Dear Bill:

I am enclosing a copy of our Project Evaluation Review. My trip here proved most fruitful and timely providing Oscar and I the opportunity to review the Project's status and take advantage of the A.I.D. sponsored evaluation.

I think that the evaluation has made it very clear that unless the directorship issue is satisfactorily resolved by January 1983 our ability to provide useful assistance to the Project will be seriously hampered. As you know, the Academy is committed not only to provide assistance for development of the health education activities, but to leave behind a group of Hondurans able to carry on these activities in similar projects in the future. I hope that the present ambiguity over who has operational control of the Project and the past difficulties with the Health Education Director will be resolved soon. I would like to officially request, however, that A.I.D. formally review this issue in December, and if there is no improvement, to raise the concern directly and explicitly with the Minister of Health. Basically, we must know two things in order for our assistance to be effective: 1) who controls the Project resources for health education and 2) who should we train as communication specialist for the program. Ideally the same person should play both roles.

As I mention in the attached report I feel we now need to make a few modifications in the Implementation Plan. We need to select 3 - 4 critical behaviors and make these the exclusive focus of the educational campaign. We have been too ambitious trying to teach too many topics. I would like to request that you approach the WASH Project to help us identify an expert to work with the Health Education team here for two weeks in November to accomplish and select these behaviors.

I would also like to bring a consultant in rural training to assist Oscar develop some practical training excercises for promotion. I have an excellent candidate and we could use A.E.D. contract resources to bring him for two weeks in December, if you approve.

Finally, Oscar and I have talked about building in some simple but attractive rewards for promotors who do effective education. An annual prize for best promotors, baseball caps and tee-shirts with colorful Project emblems, etc., could help stimulate interest greatly.

I believe that Oscar has done an excellent job, but at the moment we are somewhat behind schedule. We need to catch up quickly and move ahead with an aggresive radio campaign. Much of this depends, however, on the Health Education Director's ability and willingness to accept responsibility, make decisions, and assess resources. We must count on A.I.D.'s assistance to monitor and help resolve this issue.

I hope we can continue to count on your support in this regard.

Cordially,

William A. Smith
Vice-President and
Associate Director

cc: Oscar Vigaño
Field Project Director
Honduras

Files

Enclosure

/vml

HEALTH EDUCATION COMPONENT

RURAL WATER AND SANITATION PROJECT 0165

PROJECT EVALUATION REVIEW

I. INTRODUCTION

The purpose of this report is to analyze the recent A.I.D.-sponsored evaluation of the Health Education component of the Rural Water and Sanitation Project (PRASAR) (Loan No.522-U-036) and recommend steps to make mid-course corrections in the program.

Given the resources available for the evaluation, Ms. Adriana de Gómez of Creative Associates seems to have done an excellent job. She had the opportunity to interview key people, travel to the field and observe project activity, as well as review project documents and materials. We are in full agreement with her general conclusions and fully support the bulk of her recommendations. The evaluation came at a timely moment and we feel it was most useful.

II. SUMMARY A.E.D. RECOMMENDATIONS

1. Resolution of the Health Education Directorship issue by January,1983 is critical to the overall success of the component. Without clear guidance on who is in charge and who is to be trained as a communication specialist, the objectives of the Health Education component will not be satisfactorily met.

2. A reward system for promotors should be developed which supports specific educational responsibilities.

3. A consultant should be identified immediately through the WASH Project to assist the Health Education personnel select 4 - 5 critical behaviors to be evaluated which will then become the central core of the education campaign.

4. Radio should carry more of the educational burden using

saturation spot campaigns and radio magazine programs.

5. A rural training expert should be identified to work with the Health Education staff in December to develop and incorporate innovative training excercises which promotors can use to increase community participation in the program.

III. THE EVALUATION CONCERNS

As we understand, Adriana de Gómez's concerns fall into two broad categories: policy issues and technical issues. I would briefly characterize her principal concerns in the following way:

Policy Issues:

1. The Project Agreement has not been fully implemented by the Ministry of Health in that the Education component lacks operational control of the resources designated to fulfill the educational objectives. This control was to be excercised through a co-equal directorship for the three components, Health Education, Ministry of Health Construction Program, and SANAA. In fact, Health Education functions as a sub-component of the Ministry of Health Latrine and Well Program, placing the educational decision-making authority in the hands of an individual without professional educational training or experience. In large part this is due to the fact that the person named as Health Education Director has not yet demonstrated the ability or willingness to assume the role of Director. This has created a decision-making vacuum and created serious delays in all aspects of the educational activities. This problem is compounded by the fact that the Academy has two major responsibilities in the Project, first to provide assistance in the realization of the educational objectives specified and secondly to train Honduran personnel in the development and use of mass communication technology. Without an active Project Director who is an educational specialist, both goals are in serious jeopardy.

2. The basic reward system for the field promotors provides no effective incentives for education activities, resulting in low compliance with their educational responsibilities.

.../3

Technical Issues:

1. The Health Education Program has tried to do too much, resulting in several materials which are too general in nature.

2. Delays in material production have meant that promotors have few materials available to support their educational activities.

3. Community education and group decision-making have been sacrificed by promotors in favour of one to one promotion. This has resulted in individual latrine projects, but lacks the community support and enthusiasm necessary for long-term project success.

IV. PROPOSED MODIFICATIONS

It is essential that the following actions be taken as soon as possible to correct these problems.

Policy Issues:

1. Health Education Director:

   On or about December 15, A.I.D. should review the status of the Health Education Directorship to determine if the problems identified in the Gómez evaluation continue. If they are continuing, then A.I.D. should raise this issue officially and directly with the Minister of Health to determine:

   a) Who should have operational control of health education resources in the Project, and
   b) Who should the Academy train in the mass communications skills needed for the Project to continue.

   We are convinced that unless this issue is resolved satisfactorily by January, 1983, the effectiveness of our assistance will be seriously diminished and the overall objectives of the Health Education component will be threatened.

2. Reward System for Promotors:

   a) The educational tasks of the promotor should be kept to a minimum focusing on a few critical behaviors and allowing radio to carry much of the general educational and promotional burden.

   b) A performance checklist should be developed for all Promotors I.

This list should be reviewed by the Promotors II during the evaluation sessions and provide explicit performance criteria for payments and personal encouragement. The following two educational activities should be added to the existing latrine construction criteria; conduct at least one rotafolio group a week with community members, and conduct at least two meetings a month with health volunteers working with CODECOs.

c) Large scale distribution of print materials in conjunction with short retraining sessions should be conducted beginning in January. Training sessions should include at least three group dynamic excercises which promotors can use to motivate and teach large community groups.

d) Baseball caps and tee-shirts with an identifying symbol should be provided to all Promotors, I, II, and III, as a means to stimulate, interest, and identify them within their communities.

e) A letter of congratulation from the Minister of Health should be given to active promotors twice a year along with an annual certificate of merit for the five best prorotors. These five promotors should receive press recognition and the awards should be given via radio. During the award the educational activities of the promotor should be stressed.

Technical Issues:

1. Educational Activities are too Broad:

a) The Health Education staff should meet immediately with an out side expert to review the educational content of the program and to select a small core of critical behaviors to be stressed during the last years of the program. This expert should have experience with all technical aspects of the program as well as the educational and evaluation needs. A two-week consultancy would be ideal - one week to review the Project's field activity and a second week with the Project staff to reduce the long list of possible behaviours to select few and design a practical evaluation program.

b) The 3 - 4 critical behaviors should then become the focus of

the radio component. Radio broadcast time should be increased significantly - using saturation spots to remind rural users of maintenance behaviors and phased spots campaigns to teach rural audiences selected health behaviors. Longer programs like radio novels and radio magazines should be used to motivate rural people to participate in group activities and to support their local promotor.

Promotors should focus their efforts on three aspects: 1) latrine, well,and aqueduct construction using the flipcharts as support material; 2) formation of CODECO and patronato groups;and 3) delivery of print materials to schools, health centers, and rural users. Radio and print media should emphasize latrine, well, and aqueduct maintenance behaviors as well as focusing on two or three critical health behaviors related to water use and food preparation.

2. Lack of Support Material:

The following materials have been already distributed in the field.

1,500 copies of aqueduct poster - January, 1982.

2,000 copies of hand pumps poster - April, 1982.

3,000 copies of latrines poster - May, 1982.

Broadcast of 3 promotional radio spots in Santa Rosa and Santa Bárbara - April-July, 1982.

Broadcast of 2 radio soap opera announcement spots in Santa Rosa and Santa Bárbara - September, 1982.

Broadcast of on-going 30-minutes radio soap operas began in Santa Rosa and Santa Bárbara on September 15, 1982.

The following materials have been designed and tested. They will be available as noted below.

5,000 full color copies of comic book "Juanita y la Gotita" available by October 30, 1982.

200 copies of flipchart on "Promotion", available by October 16, 1982.

2,600 school wall chart copies on "Care of the Latrine",available by November 25, 1982.

2,600 school wall chart copies on "Personal Hygiene", available by December 15, 1982.

2,600 school wall chart copies on "Care of the Water", available by January 10, 1983.

20 episodes of radio program "Frijol el Terrible" - September 8, 1982.

3 radio spots on education, available by December 15, 1982.

Training:

October 13 to 15th - Fourth in-service training for field promotors - "Group Dynamics and the Use of the Promotion Flipchart".

3. Community Decision-Making and Participation:

A consultant has been identified to assist the Health Education staff develop a set of effective group dynamic excercises. These excercises will be used to train promotors and in turn used by promotors to develop community concensus in support of Project's goals. In combination with the flipchart and other print material these activities will provide a solid basis upon which to build a practical educational role for the promotor.

V. ACCOMPLISHMENTS TO DATE

Despite the problems identified in the previous section significant accomplishments have been achieved. The following section provides a brief summary of the accomplishments to date.

February 16th. to May, 1981

-Reading of Project documents.
-Investigation Health Education Project content.
-Visits to the field to talk to promotors and villagers.
-Meetings with Dr. Pareja and Kendall to get more rural area population information gathered for PROCOMSI baseline evaluation.
-Meetings with PRASAR's personnel.
-First draft of the Health Education Project Three Year Implementation Plan completed.

June to September, 1981

-Preparation of plan for supplementary funding from Health Sector I Project.
-Meetings with John Massey, Barry Smith from AID, Dr. Zelaya and Dr. Urtecho from MOH, to arrange funding.
-Final copy of Implementation Plan presented to MOH.

-Officially approved Implementation Plan by AID.

September to December, 1981

-Design of one poster.
-Design and production of three promotional radio spots.
-Contact and negotiations to broadcast radio spots in Santa Bárbara and Santa Rosa.

Materials Produced, 1981-1982

-January, 1982, 3,000 copies of Aqueducts poster.
-February, 1982, 3,000 copies of Latrines poster.
-April, 1982, 5,000 copies of Hand Pumps poster.
-By May, 1982, 6,000 copies were distributed to the field.
-Three radio spots on the air since February, 1982, Santa Bárbara, Santa Rosa.
-20 radio soap operas; air started September 15, two stations, 30 minute programs.

Field Activities

Evaluations

-Material testing of Latrines poster, January, 1982.
-Material testing of Pumps poster, February 20, 1982.
-Material testing of "Juanita y la Gotita" No.1, March 25, 1982 in Ocotepeque, Lempira, and Copán.
-Pre-test of three radio spots on promotion in Ocotepeque, Lempira, and Copán, March, 1982.
-First post-test for formative evaluation radio spots on promotion, May, 1982, Ocotepeque and Copán.
-Material testing of flipchart on promotion, July, 1982, Cortés and Ocotepeque.
-Material testing of first two radio programs, August, 1982, Santa Bárbara, Ocotepeque, and Copán.
-Audience reaction and listenership of radio program "Frijol el Terrible", September, 1982, Santa Bárbara, Santa Rosa, Ocotepeque, and Lempira.

Training

-January-March, 1981, La Ceiba, 45 new promoters "Communications and Health Education".

-June, 1982, 50 new promoters, San Marcos, Ocotepeque, "Communications and Health Education".

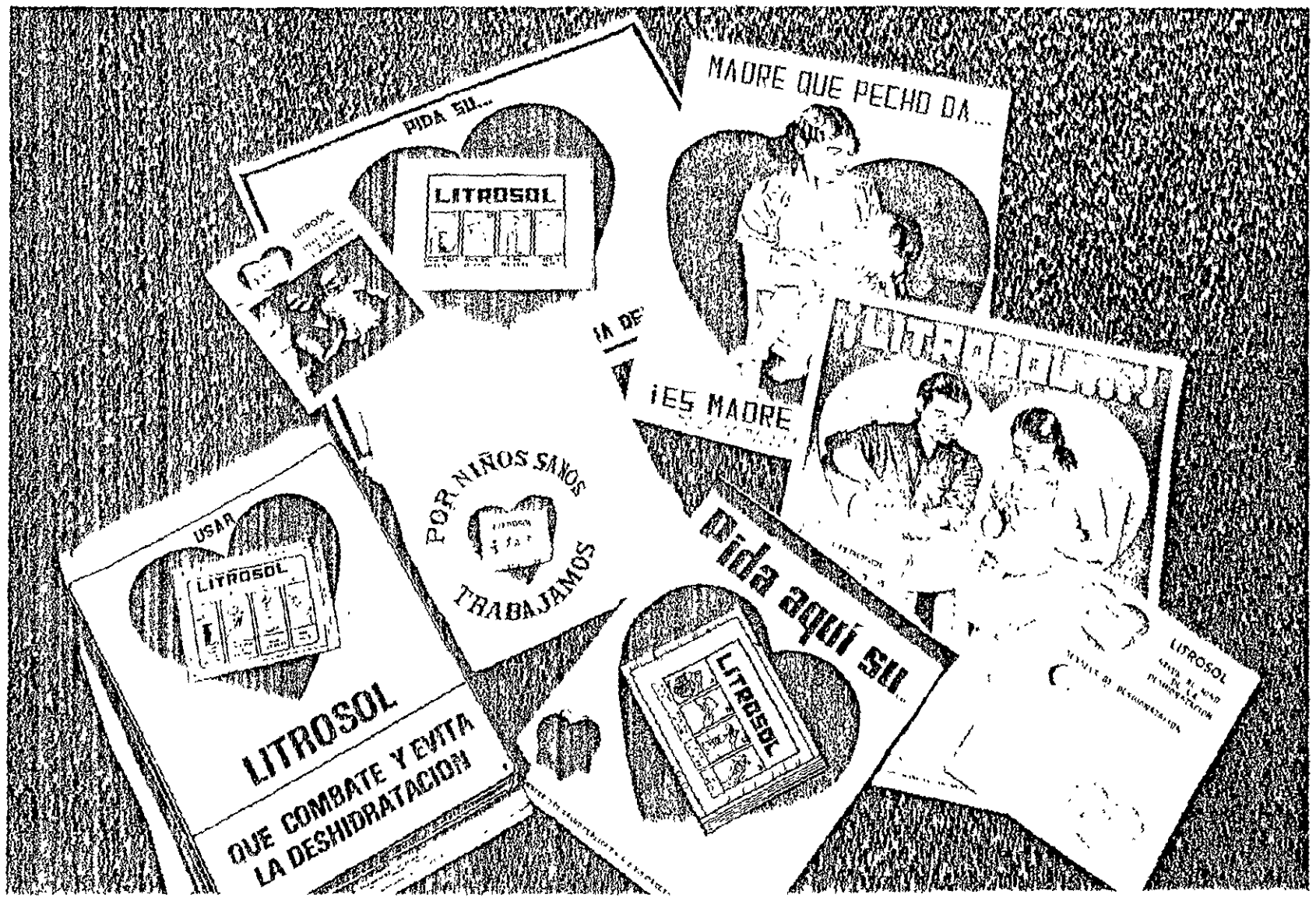
-July, 1982, San Marcos, Ocotepeque, 20 Promoters I First In-Service Training "Dialogic Group Dynamics in Health Education" - "The Use of Flipcharts in Health Education".

-July, 1982, San Marcos de Ocotepeque, Second In-Service Training of Promoters - 20 Promoters I "Dialogic Group Dynamics in Health Education" - "The Use of Flipcharts and the Coded Messages for Health Education".

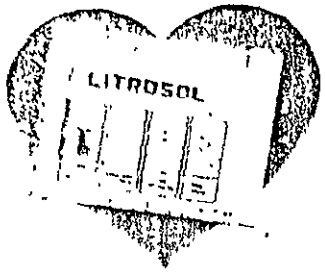
-August, 1982, Puerto Cortés, Third In-Service Training, 26 Promoters II, III, and engineers.

APPENDIX D

PHOTOS OF GRAPHIC MATERIALS


PIDA SU...
LITROSOL
MADRE QUE PECHO DA...
¡ES MADRE
POR NIÑOS SANOS
TRABAJAMOS
Pida aquí su
USAR
LITROSOL
LITROSOL
QUE COMBATE Y EVITA
LA DESHIDRATACION
LITROSOL

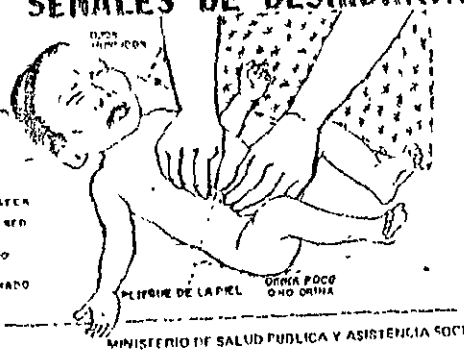
US.S DE LA DIARREA



LITROSOL

SALVA AL NIÑO DE LA DESHIDRATACION

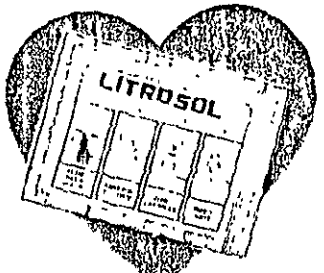
SEÑALES DE DESHIDRATACION



SI EL NIÑO CON DIARREA TIENE DOS O MAS DE ESTAS SEÑALES, LLEVELO ENSEGUIDA AL CENTRO DE SALUD Y SIGA DANDOLE LITROSOL EN EL CAMINO.

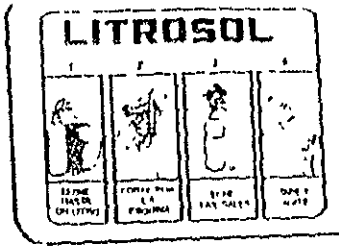
MINISTERIO DE SALUD PUBLICA Y ASISTENCIA SOCIAL

EL DOCTOR SALUSTIANO ACONSEJA TODAS LAS DIARREAS PUEDEN LLEVARLA A LA DESHIDRATACION PARA EVITARLO CLASE DE DIARREA DELE LITROSOL A SU NIÑO

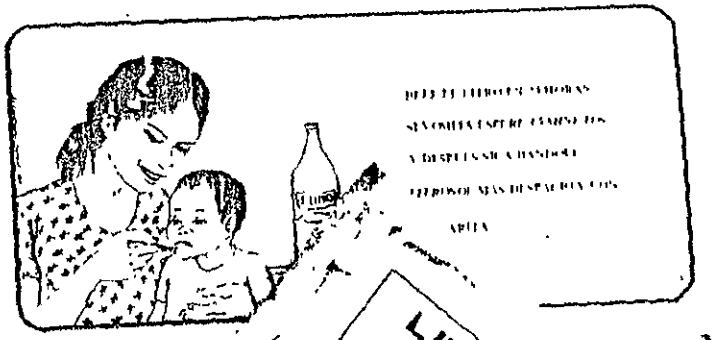


LITROSOL ES PRODUCIDO POR EL PAMI TEGUCIGALPA D.C. HONDURAS C.A. -1982

CUANDO EL NIÑO TENGA DIARREA:



MEZCLE TODOS LOS SOBRES DE LITROSOL EN UN LITRO DE AGUA ALMACENE LA MEZCLA EN UN RECIPIENTE LIMPIO



DEJE EL LITROSOL VARIAS HORAS SE COMIENZA A ESTERILIZAR EL AGUA Y DESPUES SE CONSERVA EL LITROSOL SIN DESPERDICIOS APTA

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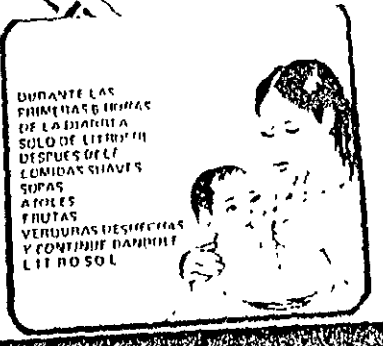
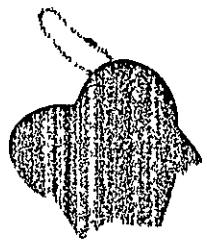
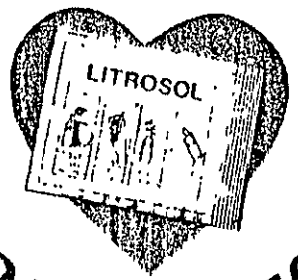


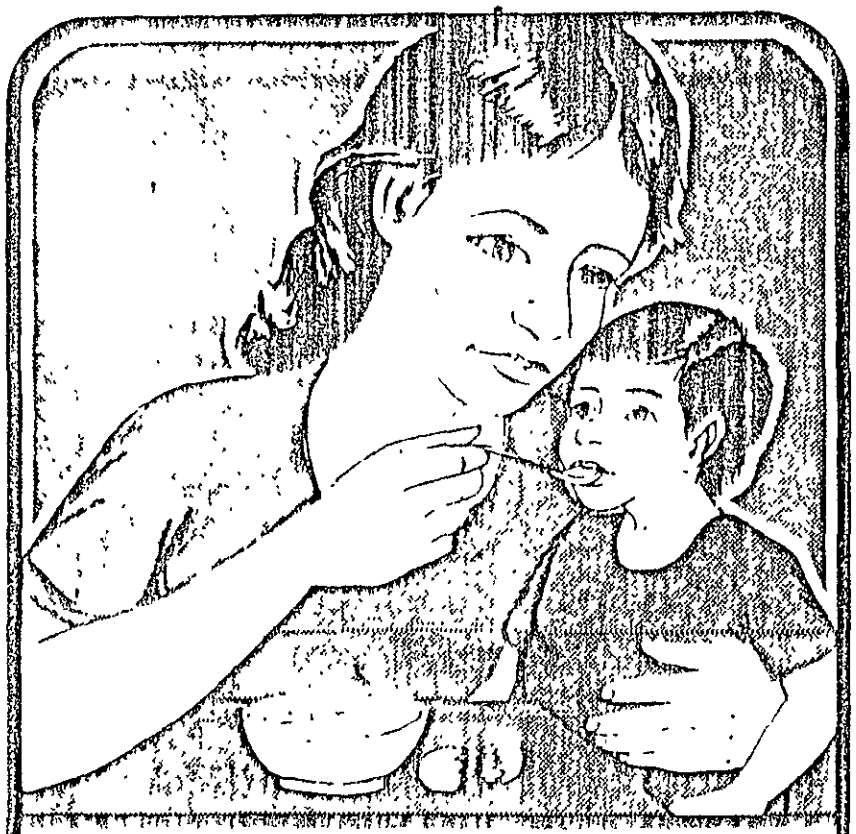
DURANTE LAS PRIMERAS 6 HORAS DE LA DIARREA SOLO DE LITROSOL DESPUES DELE COMIDAS SUAVES SOPAS ATOLES FRUTAS VERDURAS DESHECHAS Y CONTINUE DANDOLE LITROSOL



POR NIÑOS SANOS



TRABAJAMOS



SI EL NIÑO YA COME:
OFRECERLE COMIDAS SUAVES COMO SOPAS, JUGOS, TÉS, HUEVO TIBIO, DESPUÉS DE SEIS HORAS DE ESTAR TOMANDO **LITROSOL**.

INSTRUIR A LA MADRE QUE LE DE LA ALIMENTACIÓN ACOSTUMBRADA AL NIÑO CUANDO LE PASE LA DIARREA.

XDAAQ003B

APPENDIX E

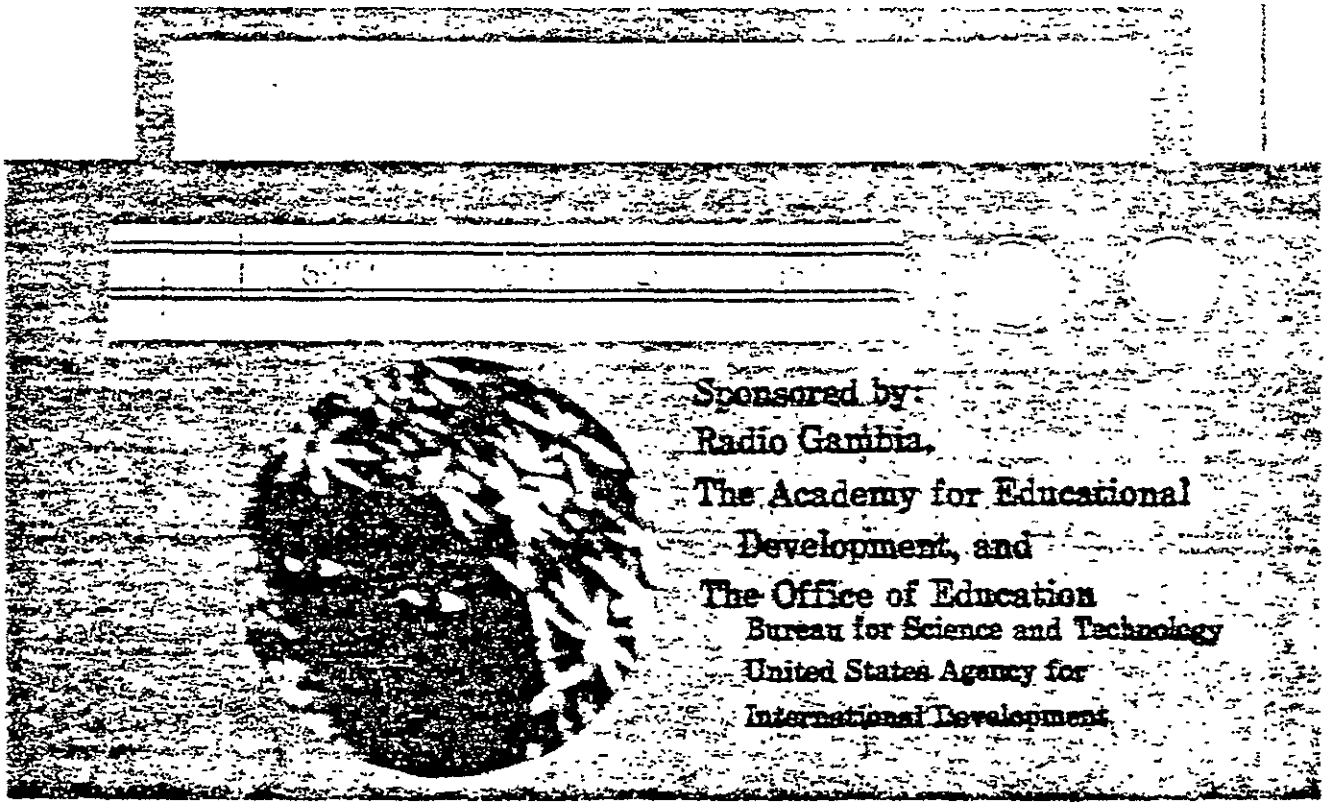
NATIONAL SEMINAR ON DEVELOPMENT COMMUNICATIONS

Final Report

NATIONAL SEMINAR ON DEVELOPMENT COMMUNICATIONS

THE GAMBIA

JUNE 7 - 19, 1982



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XD-AAQ-003-B
ISN-36834

NATIONAL SEMINAR ON DEVELOPMENT COMMUNICATIONS

The Gambia

June 7-19, 1982

This Seminar has been jointly sponsored by Radio Gambia and the Academy for Educational Development through its contract, Studies in Facilitating Learning (AID/ta-C-1473), with the Office of Education, Bureau for Science and Technology of the U.S. Agency for International Development.

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Appendix C	Planning Guide
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Appendix E	Participant Evaluation Form and Responses
Appendix F	List of Equipment, Materials, and Supplies Presented to Radio Gambia
Appendix G	List of Invitees
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NATIONAL SEMINAR ON DEVELOPMENT COMMUNICATIONS

The Gambia
June 7-19, 1982

I. SPONSORS

Ministry of Information, The Gambia
Radio Gambia
Academy for Educational Development
Office of Education, Bureau for Science and Technology,
U.S. Agency for International Development

II. INSTRUCTORS

Dr. William A. Smith
Ms. Esta de Fossard
Mr. Al Hundley
Dr. Peter Spain

III. PARTICIPANTS

Twenty-eight mid-level professionals representing ten organizations and entities of the Gambian Government. (A complete list of participants with their affiliated institutions is provided in Appendix A.)

IV. OBJECTIVES

The main objective of the seminar was to increase the variety and quality of instructional radio programs being broadcast from Radio Gambia.

To achieve this goal participants should be able to:

- Develop a systematic Program Plan to:
  - Define and meet a significant development problem
  - Define a particular audience
  - Select those topics which are most useful for that audience
  - Translate those topics into specific learning objectives and messages
  - Determine program format
  - Identify program development and production need
- Write radio scripts for three different radio program formats.
- Develop a pre-test questionnaire and conduct a pre-test review.
- Collect useful field recording material including field interviews.
- Transfer sound from cassette to reel-to-reel format.
- Integrate field tape, narration and effects into a coherent program.

- Edit audio tape with minimal technical flaws.
- Prepare an evaluation plan and design questionnaires to determine program impact.

V. SEMINAR FACILITIES AND ADMINISTRATION

A. Facilities

Registration (Monday, June 7, 9:30 am)	Central Bank Building
Opening Reception (Monday, June 7, 10:00 am)	Central Bank Building
Primary Training Site	Tropic Gradens Hotel, Bakau (The hotel provided a conference room, lounge, office, and daily refreshments for the training sessions)
Studio Time (Wednesday, June 16)	Radio Gambia Main recording studio
Reception (Thursday, June 17, 6:00 pm)	Hotel Staff Training School, Kanifing (catered by Hotel School)
Closing Reception (Saturday, June 19, 11:30 am)	Tropic Garden Hotel (The hotel provided refreshments as well as the facilities for the closing reception)

B. Transportation

Radio Gambia provided their bus and two automobiles daily at 9:00 am and at 2:00 pm for transportation to the training site.

C. Administrators

Mrs. Yamai Jack
Ms. Laurel Elmer

VI. WORKSHOP SCHEDULE AND ACTIVITIES

Monday, June 7

10:00 am	Opening Reception.
12:00 pm	Introduction and group discussion: "What are the principle problem areas you have experienced in applying radio to

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programs of development within your individual Ministries?" (See Appendix B for a summary of the problems mentioned by the participants.)

1:30 pm — Begin Program Planning Process (Planning Guide, pp. 2-3 in Appendix C.)

3:00 pm — Adjourned.

Tuesday, June 8

9:00 am — Planned and discussed three sample programs, "African Musical Festival," "Blind Man," and "Energy Issues," to illustrate radio's ability to tell a story.

9:30 am — Completed Planning Process (see Planning Guide, pp. 3-4 in Appendix C). Groups formed to begin program planning around specific radio programs to be produced during the following weeks. Four program themes were selected by participants and included Polygamy, Traffic Safety, Community Cooperation, and Rainy Season Preparation. Each theme constituted one working group.

Wednesday, June 9, Thursday, June 10, and Friday, June 11 — 9:00 am - 3:00 pm

Each of these three days, the large group was divided into three different subgroups reflecting the participants' relative experience with radio (Group 1 - Advanced, Group 2 - Middle Level, Group 3 - Beginner). Each of the three instructors took a single topic (Hundley - Technical Production, de Fossard - Script Writing, Smith - Formative Evaluation). Groups 1, 2 and 3 rotated to spend one day with each of the instructors exploring specific skills in the three topics. Appendix D provides an outline of the principle points covered by each instructor during these sessions.

Saturday, June 12 — 9:00 am - 1:00 pm

Major points covered on the previous three days were reviewed with the full group. Dr. Anthony Meyer, ST/ED, USAID, was presented to the group for the first time. The four program groups formed on Tuesday, June 8th reconvened and began their detailed planning for field taping scheduled for Monday, June 14th. A script outline was finalized by each group.

Monday, June 13 — 9:00 am - 3:00 pm

The four program groups dispersed to collect recordings needed to create their program. Cassette recorders were used for the first time in the field. Two groups traveled to a nearby village with Hundley supervising, two groups remained in Banjul with de Fossard and Smith supervising. Interviews, narrations, and sound effects were recorded.

Tuesday, June 14 — 9:00 am - 3:00 pm

The four program groups returned to the Hotel and worked on logging their field tapes, selecting sections for inclusion in their program, preparing narratives and

calculating timing for editing. Field recording problems were reviewed. The most common problems related to interviewing techniques and microphone management. Specific points covered include:

- Need to set up interviews before they take place.
- Importance of having a well thought through explanation for why the interview is being requested.
- Preparing the interviewee by showing him/her the equipment and explaining how the microphone works.
- Not giving up too quickly if people are reluctant to give interviews.
- Looking for creative alternatives if a planned interview is cancelled.
- How to repeat sections of an interview if outside noise distorts recording.
- Need for carefully thought through questions that elicit substantive responses.
- Techniques for controlling interviewees who dominate a group interview.
- Importance of being a careful listener - sensitive to street sounds, electric fans, etc., which may be recorded inadvertently.
- "Slating" or identifying an interview by name of interviewee and location of interview.
- Cueing interviewees who speak too fast; providing space between questions and answers.

Wednesday, June 16 9:00 am - 3:00 pm

The four groups worked at Radio Gambia on final edit of programs. Two groups worked in separate recording studios in the morning while the other two groups worked with Dr. Peter Spain, of the Stanford University Mass Media and Health Practices Evaluation Team. Dr. Spain reviewed principles of pre-testing with the groups in preparation for their pre-testing practice scheduled the following day. In the afternoon groups rotated so that all participants completed program editing and pre-test preparation.

Thursday, June 17 9:00 am - 3:00 pm

The four groups traveled to Gunjur, a village approximately 45 minutes from Banjul. Using the coincidental gathering of women from all over The Gambia as a means to minimize the impact of 28 outsiders on the village, the groups identified potential respondents for pre-tests of their programs. Each group decided to conduct pre-tests in slightly different ways; some using groups of respondents, others relying on individual interviews. All groups interviewed at least five people.

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Friday, June 18 9:00 am - 3:00 pm

The morning was spent reviewing the pre-test results. Groups were asked to describe what happened during the pre-test, what problems they encountered, and what changes they would make in their programs as a result of the pre-test. Some of the topics discussed included:

- When to repeat a portion of a tape being pre-tested for respondents.
- Whether or not to tape the pre-test interview.
- What is the best environment to pre-test in an open village.
- How many respondents to interview at once.
- How to reduce one respondent influencing another.
- How to avoid arguing in front of respondents or leading respondents to pre-determined answers.
- How to make respondents feel comfortable.

A set of standard-question formats were developed with the group to guide future pre-testing. The questions include:

- TO DESCRIBE WHAT RESPONDENTS HEARD, to determine how well the program was understood:

  1. Could you tell me what happened in the program you just heard?
  2. Can you remember anything else?
  3. Do you remember what (character's name) said to (other character's name) about (topic of program)?
  4. Do you remember why (some key event in program) occurred?

- TO DETERMINE IF RESPONDENTS AGREE WITH PROGRAM MESSAGE:

  5. Do you agree with what (character's name) said about (key topic)?
  6. Was there anything you did not agree with?
  7. Nothing at all you didn't agree with?

- TO DETERMINE IF CENTRAL MESSAGE WAS COMMUNICATED:

  8. What do you think this program is trying to teach us?

9. Can you think of anything else it might be trying to teach us?

- TO DETERMINE HOW WELL RESPONDENTS ACCEPTED THE PROGRAM'S MESSAGE:

10. Was there anything in the program that might bother someone in your community?

11. Was there anything you didn't like about the program?

12. Was there something you especially liked? What was your favorite part of the program?

Discussion then focused on how to analyze pre-test results. The following questions were developed as a guide.

- What did respondents remember without the interviewer asking probing questions?
- What did respondents remember after probing questions?
- What important ideas did respondents fail to mention?
- What did they dislike?
- What did they like most?
- What did they understand the basic message to be?

In the afternoon an evaluation form was given to each participant, which included both informational and opinionative questions about the course (see Appendix E). The answers to the first 15 questions, which represented a test of how much was learned during the course, were tabulated. Of a possible total of 420 responses (15 questions x 28 participants) only eight incorrect answers were found. The last five questions on the evaluation form refer to the participants' estimation of how well the seminar met their own needs. There was an almost equal distribution of interest between script writing, technical production and evaluation expressed by the participants. Suggestions for a follow-up workshop included emphasis on radio listening groups, news reporting, and women's programming. There was widespread satisfaction expressed by participants as to the seminar's relevance and usefulness. (Precise comments are listed in Appendix E.)

Saturday, June 19 11:00 am - 12:30 pm

Closing ceremonies were chaired by Radio Gambia personnel. Brief remarks were made by the Parliamentary Secretary of the Ministry of Education, by Dr. Anthony Meyer, and by the three instructors. Dr. Smith made the official presentation of equipment and supplies being left with Radio Gambia (see Appendix F for a complete list of materials). A complete list of invitees to the opening and closing reception ceremonies is included in Appendix G.

VII. CLUSA LISTENING GROUP WORKSHOP

At the requst of the USAID/Banjul and Mr. Tom Winn, representative for the Cooperative League of the United States of America (CLUSA), an additional two-day workshop on Radio Listening Groups (RLG) was conducted for some 18 Gambian cooperative extension workers. The cooperative program had been working with Radio Listening Groups for one year and requested special assistance in this area. Ms. Esta de Fossard took primary responsibility for these two sessions and was assisted the first day by Dr. Anthony Meyer.

Sunday, June 20, CLUSA Workshop: 9:00 am - 3:00 pm

The day was divided into three sessions. The first session was used to allow participants to introduce themselves and to outline some of the particular difficulties they experienced in trying to run Radio Listening Groups.

Two particularly successful experiments in the area of Radio Listening Groups were outlined. One, in Tanzania, was successful because it restricted its operations to a ten-week period, rather than attempting to be an ongoing, all-year activity. The other, in Haiti, was particularly effective because it allowed for very strong listener participation.

From these two descriptions, the instructors elicited from the group the realization that their groups might be more effective if they were restricted to specific periods of the year when farmers are more available to take part in group discussions, and the realization that their efforts might be more effective if the scope and direction of the programs were more determined by the farmers themselves, relaying their needs through the RLG facilitators.

In the second period of the day, the class was divided into two groups. Each was given a radio program to listen to and around which to devise an RLG program for discussion. Participants discussed briefly the things they should be working on as they planned their discussions. Each group was divided into two facilitators and a set of observers. An observation guide was developed and the groups determined the strategies they would use to facilitate a discussion around two programs that had been made in the previous two-week radio training seminar on the topics of Preparation for the Rainy Season and the Need For Day Care Centers.

In the third period of the day, Group A played their tape for Group B and led a discussion. Following this, the observers commented on what they had noticed during the discussion, and discussed things to avoid and things to attempt to do during a discussion group.

Monday, June 21: 9:00 am - 3:00 pm

In the first period of the day, Group B played their tape for Group A and carried out their discussion. There was clearly some attempt to improve upon what had happened the previous day, but this group was very different in its reactions, being far more vocal and cantankerous. This provided a very good opportunity to discuss the approaches to the two different group reactions - when a group is not interested in a topic, and when they are overly interested.

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From this, a discussion of the objectives behind a RLG was initiated. Three sets of objectives were discussed:

- The objectives of the cooperatives over all.
- The objectives of the existence of RLG's.
- The objectives of any one particular discussion.

In the second period of the day, a presentation of the various program types was given, including: Exposure and Information, Skills Training, and Support. Ways in which discussion groups could be structured to accommodate these various program types was also discussed. Participants were given clear guidelines to follow when conducting a discussion in each of these program types. Various formats in which radio programs can be made, and the effect that the program format has on the discussion, were examined.

Particular questions that can be used to elicit information about program content were developed, and a TASK plan that can be used to guide participants to the completion of a valuable discussion group was outlined.

In the third period of the day, the requisites of a campaign plan were presented. The group left with a clear understanding of how to go about setting up a ten-week listening program that would involve radio, other media and the RLG facilitators.

The group planned that in their next two-week meeting, starting July 12th, they would immediately begin work on a campaign to be run during December and January.

VIII. PRIMARY RESOURCE MATERIALS

In addition to the resource materials given to each participant as background reading, five primary resource materials were used during the seminar.

A. Radio Production Seminar Planning Guide, prepared by the instructors (see Appendix C).

B. Pre-Testing in Health Communications, U.S. Department of Health and Human Services.

C. Making Radio: Radio Journalism, Larry Josephism, Daniel Mack, National Public Radio. Chapters 8, 9, 10, and 11.

D. Writing the Instructional Radio Script, Esta de Fossard, Academy for Educational Development.

E. CBS Radio "Sunday Morning" Documentary Production Style Guides, Steve Wadhams.

IX. CONSULTANT RECOMMENDATIONS

The following set of recommendations has been proposed to the Director of Broadcasting, Radio Gambia, to provide him with the consultants' best judgment on how radio's overall effectiveness might be improved in the upcoming months and years. As a group, we recognize that the stay has not equipped us properly to make a comprehensive

analysis of the problems or the constraints operating on Radio Gambia personnel. At the same time, we do wish to share our limited insights with the principal authority in this area.

Without question, we have all been impressed with the dedication and professionalism of the course participants and the cooperating personnel from Radio Gambia who have made our visit such a pleasure and, hopefully, a success. Given the limitations on numbers of personnel, equipment and training, Radio Gambia can be truly proud of its contribution to the country's overall development. The following recommendations represent our thoughts on how that contribution might be increased still further.

The technical production problems observed at Radio Gambia are quite common in broadcasting stations everywhere and the recommended solutions have proved effective in various settings around the world. Specific recommendations include the following:

- Radio Gambia and the Ministries who make radio programs should use cassette machines for most field recording. The cassette equipment currently available produces sound recordings as good as those made on portable, open-reel machines such as the Uher. Cassette machines are easier to operate, more reliable, and much less expensive. A great many broadcasting stations in various countries have already abandoned Uhers and similar machines in favor of cassette recorders. Many cassette machines will perform adequately, but we recommend a Morantz Model PMD (approximately $160) with a Realistic Electro-voice Microphone, either Model RE50 ($100) or Model 33-1070 ($40), made by Shure Brothers, Inc., and a waterproof carrying case ($35) for protecting the equipment and cassettes from rain and dust.

- Provision should be made for dubbing cassette recordings onto open-reel tapes quickly and easily. This could be accomplished by conducting the dubbing operations away from the studio. If the studio is being used for recording, the dubbing can be accomplished by patching the cassette machine directly to the open-reel deck.

- It is recommended that, if possible, Ampex ATR-700 machines be phased out and replaced with more reliable equipment, such as Otari, MX 5050B (cost is approximately $2,000). The Otari makes excellent recordings, is extremely reliable and spare parts should not be a problem.

- The small radio production facility left with Radio Gambia by the Radio Production Seminar should be made available to Ministry personnel responsible for producing programs for broadcast by Radio Gambia. This would improve the quality of programs produced by the Ministries, and would relieve the production pressure on Radio Gambia personnel, caused by the shortage of studio capacity. The equipment should be located at Radio Gambia and kept in a secure place (preferably an air-conditioned room which can be locked), and it should be serviced regularly by Radio Gambia technicians. Those non-Radio Gambia personnel who will use the equipment should first complete suitable training on its correct operation.

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- Additional editing equipment could be purchased by Radio Gambia at relatively low cost. Should additional equipment be required, we recommend the following configuration.

2 high quality cassette machines, such as Technic RS - M205 ($130 each)	$260
1 open-reel recorder, such as Akai 6X 4000	300
1 audio mixer, such as Realistic 5 input mixer	80
2 microphones. such as Realistic 33-1070 ($40 each)	80
1 headset	30
	$750

Air-freight charges from the U.S. would add about $200-$300 to the total.

- The audio tape used at Radio Gambia and by the Ministries should be standardized by brand and type so as to maintain consistent and compatible recording quality. A physically strong, moderately priced tape with good technical specifications is recommended, such as Scotch 176 or Ampex 631. (Cost is approximately $5 per 30-minute reel).

- To conserve time and ensure the most accurate programming possible, it is suggested that the responsibility for each informational/instructional program broadcasted by Radio Gambia should reside jointly with the radio producer and the content advisor in the following manner: The radio producer will be responsible for technical quality control, artistic quality (suitability of format, effects, language, music, etc.), and program length. The content advisor will be responsible for seeing that the content is presented accurately and that it is not affected adversely by the production decisions made at Radio Gambia.

- Where a Ministry representative acts as both content advisor and producer, the program should be subject to final artistic and technical approval by a senior Radio Gambia producer. Any changes that are deemed advisable should be cleared by the content advisor to ensure that content is not altered by production changes. In order for this process to work smoothly, it would be essential to require all programs to be completed one week ahead of broadcast date. Ministry and Radio Gambia personnel should agree to these policies in order to ensure satisfaction on both sides.

- Producers (whether from Radio Gambia or the Ministries) should be given authority to direct the technical operator to record and mix the program to the producer's satisfaction, but the technical operator should have the right to advise the producer when a direction given by the producer is unwise from a technical standpoint.

- It would be advisable to consider the adoption of the following policies:

  - Non-technical personnel should be allowed to carry out certain specific technical activities in the studio, under the direction of experienced technicians, after completing a suitable course of training. (The non--technical personnel would include such people as Ministry producers and reporters and Radio Gambia reporters). The activities they would be loading tape onto studio machines, operating these machines in the play, fast forward, and rewind modes, and editing (physically splicing) tape on these machines.

  - At all times, only the trained technical operator should be allowed to operate the "record" and "playback" controls on the machines.

  - A policy should be established whereby each operator, upon coming on duty, will clean the heads on all the tape machines in the studio.

  - Each operator, upon coming on duty, should connect a standard reference tone through his console to all of his machines and set ll levels to "O"VV so as to ensure consistent levels in recording. All levels should then be normally controlled at the console. In circumstances where a tape has been recorded at an unusually high or low level, the correct "O"VV setting on the playback control should be noted before it is raised or lowered to achieve a normal operating condition. When the nonstandard tape is taken off the machine, the level control should be returned to its correct setting.

- A basic set of audience research questions should be developed for monitoring of Radio Gambia's overall impact. These questions should be administered regularly by field workers from the cooperating content Ministries during their normal field visits to different areas of the country. One person in Radio Gambia should be given responsibility for tabulating the results and making a quarterly report to the Director of Broadcasting. This report should be given to all cooperating content Ministries and discussed at a quarterly senior staff meeting at Radio Gambia.

- A systematic format testing process should be initiated in 1982 to identify potentially effective new programming styles. In addition to the new formats being studied by the MM&HP project, the agricultural and cooperative sections should be encouraged to produce at least two new program formats within the coming year. These should be carefully pre-tested comparing their effectiveness with a similar test audience.

- Radio Gambia should begin a period of broad-based experimentation using available resources to diversify programs and to systematically study as many of the innovations as possible. A decision needs to be made about evaluation - if producers are to be expected to increase their evaluation responsibilities, they will need additional staff or more time. A few simple, low-cost techniques can be used to improve a specific program, but if the administration wishes to truly improve the quality and popularity of overall programming, significant resources will have to be given to evaluation activities.

Some specific recommendations for 1982 are:

- On-going training should be provided so that scriptwriters and producers have the chance to work with experienced people on a regular one-to-one basis. Seminar, workshop, or even college training of a short term nature is ineffective if not followed up with practical experience under the supervision of a trained person.

- There should be some type of coordinating body created among the Ministries and Radio Gambia to:

  - establish standards and quality control
  - coordinate training
  - coordinate sharing of facilities, personnel, etc.

- There should be some arrangement made for the provision of credit from overseas universities and colleges to be given in The Gambia. This would cut down on the expense and inconvenience of sending people overseas for training, and it would provide local personnel with credit that would be acceptable for promotion purposes. The course offerings and the credit accorded should be equivalent to that which candidates would receive if they attended college within the United States. For some kinds of technical training, correspondence courses may be effective and less costly than formal classroom instruction.

X. FUNDING

A. AID Contribution

1. Salaries, fees, and personnel benefits for consultants
2. Travel and transportation
3. Materials and supplies
4. Equipment

B. Government of The Gambia Contribution

1. Participant food
2. Workshop facility rental
3. Receptions
4. Local transportation

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APPENDIX A

LIST OF PARTICIPANTS

LIST OF PARTICIPANTS - RADIO PRODUCTION SEMINAR
JUNE 7 - 19, 1982
TROPIC GARDENS HOTEL, BAKAU

NAME	TITLE	DEPARTMENT
1. Ms. Ousman Mas Jobe	Fisheries Field Assistant	Fisheries
2. Mr. Landing Sonko	Fisheries Inspector	Fisheries
3. Mr. Momodou S. Bahoum	Senior Tech. Assistant	Extension Aids Unit
4. Mr. Ismaila Ceesay	Livestock Inspector	Extension Aids Unit
5. Mr. Ibrima S. Njie	Coops Inspector, Education	Co-ops
6. Mr. Sanna A. Jammeh	Coops Inspector, Education	Co-ops
7. Mr. Samba S.M. Ndow	Forest Guard	Forestry
8. Mr. Amadou K. Bah	Forest Guard	Forestry
9. Mr. Yaya M. Sanyang	MM&HP Training Coordinator	Medical & Health
10. Mrs. Haddy Gabbidon	MM&HP Project Assistant	Medical & Health
11. Mr. Sekou Omar Dibba	Head, Health Education Unit	Medical & Health
12. Mr. Adama M. Jeng	Senior Health Inspector, Health Education Unit	Medical & Health
13. Mr.Dembo L.K. Bojang	Farmer Training Officer	Animal Health & Protection
14. Mr. Demba A.K. Ceesay	Livestock Assistant	Animal Health & Protection
15. Alhagi Ismaila Suso	Program Officer	Non-Formal Education
16. Musa S.B.M. Camara	Rural Broadcasting Officer	Community Development
17. Mr. Uyankuba Drammeh	Rural Broadcasting Officer	Community Development
18. Mr. Sarjo Barrow	Assistant Announcer	Radio Gambia
19. Mr. Momodou Joof	News Assistant	Radio Gambia
20. Ms. Lauretta Davies-Jones	Subject Specialist	Radio Gambia
21. Mrs. Marie Ngum	Subject Specialist	Radio Gambia
22. Mr. Ebrima B. Njie	Subject Specialist	Radio Gambia
23. Ms. Justina A.G. Cole	Subject Specialist	Radio Gambia
24. Ms. Maimuna Bah	Production Assistant	Radio Gambia
25. Mr. Ismaila Senghore	Trainee Production Asst.	Radio Gambia
26. Ms. Faatu Ibra Gaaba	Assistant Announcer	Radio Gambia
27. Mr. Mdou Ganneh	Trainee News Assistant	Radio Gambia
28. Ms. Sigga Jagne	Trainee Information Asst.	Information Office
29. Mr. Ousman M. Ceesay	Sub-Editor	Information Office
30. Yamai Jack		

APPENDIX B

PROBLEMS IDENTIFIED BY PARTICIPANTS

APPENDIX B

PROBLEMS IDENTIFIED BY PARTICIPANTS, JUNE 7, 1982

1. The difficulty of getting useful feedback from village groups on the effectiveness of a given program.

2. The problem of involving villagers in post-broadcast discussion of specific radio programs.

3. The difficulty of scripting in local language. Translation from English scripts to local language are often improvised and not satisfactory. Local language requires 50% to 100% more time to read than English. Programs are often cut short.

4. Lack of encouragement to create good radio progams. Emphasis is in "getting the program done," not on quality.

5. Need to coordinate themes among different Ministries. Several ministries often make programs on same topic.

6. No value is given by local authorities to local training. Overseas training is all that is respected.

7. Script writers are often asked to write programs which have no clear objective.

8. Access to portable equipment and studios is difficult. Staff not trained in how to manage equipment. Technicians are often lazy and do not want to do what producer wants.

9. One person has to do it all -- write, produce, narrate, monitor. This is too much for one person.

10. Difficult to set up interviews. People are always late.

11. Seminars like this are too short. We don't know where to start. How to evaluate?

12. How to write an interesting script about a boring topic?

13. How can a reporter communicate with those they are interviewing?

14. With children, rural children are not as advanced as urban children. How to write one program for both groups?

15. Radio reception is poor in much of the country.

16. Many programs being broadcast are not really important. How to decide what is useful and needed?

17. How to keep program within time limits?

18. What to do if listeners do not agree with the program's message?

19. People often don't have the time or ability to write script. Not everyone is a good script writer.

APPENDIX C

PLANNING GUIDE

Academy for
Educational
Development

AED
International Division

RADIO PRODUCTION SEMINAR

THE GAMBIA

PLANNING GUIDE

1982

1414 22nd Street, N.W.
Washington, D.C. 20037
(202) 862-1900
Cable ACADED WSH 89660

256

THE GAMBIA

RADIO PRODUCTION SEMINAR

GOAL:

To increase the variety and quality of instructional radio programs being broadcast from Radio Gambia.

OBJECTIVES:

To achieve this goal participants will be able to:

1. Develop a systematic Program Plan to:

   a) Define and meet a significant development problem.

   b) Define a particular audience.

   c) Select those topics which are most useful for that audience.

   d) Translate those topics into specific learning objectives and messages.

   e) Determine program format.

   f) Identify program development and production need.

2. Write radio scripts for three different radio program formats

3. Develop a pre-test questionnaire and conduct a pre-test interview.

4. Collect useful field recording material including field interviews.

5. Transfer sound from cassette to reel-to-reel format.

6. Integrate field tape, narration and effects into a coherent program.

7. Edit audio tape with minimal technical flaws.

8. Prepare an evaluation plan and design questionnaires to determine program impact.

SEMINAR SCHEDULE

		MONDAY 6/7	TUESDAY 6/8	WEDNESDAY 6/9	THURSDAY 6/10	FRIDAY 6/11	SATURDAY 6/12	
CONCEPT DEVELOPMENT	9 a.m. 10 a.m. 11:00	INAUGURATION PROGRAM PLANNING	PROGRAMME PLANNING	MESSAGE DEVELOPMENT	RADIO FORMATS & TREATMENT DEVELOPMENT	SCRIPTWRITING	TECHNICAL PRODUCTION	SUNDAY
	LUNCH 12:30							
	3 p.m.			PROGRAMME EVALUATION PRACTICUM				
PROGRAMME PRODUCTION		MONDAY 6/14	6/15	6/16	6/17	6/18	6/19	
	9 a.m.	INDIVIDUAL SCRIPT WRITING	PRE-PROGRAMME PRODUCTION	PROGRAMME TECHNICAL PRODUCTION	PROGRAMME EVALUATION FIELD TESTS	PRESENTATION OF COMPLETED PROGRAMMES	CLOSING CEREMONY	SUNDAY
	LUNCH 12:30							
	3 p.m.		MESSAGE TESTING PRACTICUM	PROGRAMME EDITING	DATA ANALYSIS			

RADIO PROGRAMME PLANNING GUIDE

A. PROGRAMME TYPES

1 ENTERTAINMENT

2 NEWS

3 INSTRUCTIONAL/INFORMATIONAL

B. INSTRUCTIONAL/INFORMATIONAL PROGRAMME TYPES

1 EXPOSURE AND INFORMATION - Audience will hear something new

2 SKILL TEACHING - Audience will respond with new behavior

3 SUPPORT - Audience will be reinforced to continue present behavior

C. CHARACTERISTICS OF EFFECTIVE INSTRUCTIONAL PROGRAMMES

1 GOOD DESIGN - Purpose, objectives and message will be strong and clear

2 GOOD SCRIPT - The message will be presented in a suitable format that is clearly scripted in appropriate language.

3 GOOD PRODUCTION - The finished programme will be clearly and cleanly produced to give it the best chance of reaching the audience.

MAKING A START

1. State the problem, issue or subject you wish to present in the programme:

2. Does this content suggest that your programme should be:

   a. an Exposure and Information programme ___

   b. a Skill Teaching programme ___

   c. a Support programme ___

3. If you ticked 2a, list the particular information you want your audience to receive.

   If you ticked 2b, state the particular behavior you would like your audience to change.

   If you ticked 2c, list the particular behaviour you want your programme to support.

4. List the particular information you will need to include in your programme.

5. List the authorities to whom you could refer to ensure the accuracy of your programme content.

6. Has this same message been delivered to your audience previously?

   By what medium?_____

   With what result?_____

ANALYZING THE PROBLEM

A. How important is this problem compared to the real needs of people?

1. Do people talk about this as a problem?

2. Do experts think something should be done about this problem?

3. Are there more important things that need to be done but are being ignored?

B. What happens now?

1. What do people now do?

2. What specific problems does this cause?

3. Is this a new problem or an old problem?

4. Who would resist making any changes in what people do now?

5. Who would support making any changes now?

C. What advice could we give people that would help solve the problem?

1. What resources do people need to apply our advice properly?

   a) Objects: tools, medicines, etc.

   b) How much time does it take to complete?

   c) How often does it have to happen to work well (yearly, monthly, daily, etc.)

   c) What time of day does it have to happen?

2. If people take our advice what effect will it have?

   a) Will there be an immediate positive result that people can see? Is the result delayed?

   b) Will there be a result that the person, family and friend can see? Is it something done alone?

   c) Are there any dangers or negative results if the people do it wrong?

   d) What are the most important things to get right?

   e) Are there any dangers or negative results if people do it right?

   f) What are the most important things they <u>might</u> get wrong or confused?

3. Will people see our advice as:

   a) Creating more work
   b) Something difficult to do
   c) Something new and strange
   d) Something they have been told not to do by someone else
   e) Something their friends and family will think is strange or wrong

4. What problem, in their own way of thinking, do people feel this advice will solve, or help solve?

UNDERSTANDING THE AUDIENCE

1. What is the target audience for this programme?

2. Identify other people in the community to whom the programme should be directed, because of the influence they might be able to have on the target audience.

3. Do listeners have access to a radio?

4. What is the standard of radio reception in their area? Does it vary at different times of the day or the year?

5. At what time(s) of the day do your listeners have the best opportunities to listen?

6. Do they usually listen alone or with other people?

7. Are they able to give their full concentration to the radio, or are they often engaged in other activities at the same time?

8. Are they already experienced radio listeners, or would this medium be a new experience for them?

9. Are they accustomed to working in listening groups for follow-up activities?

10. Would this audience be able to make use of the planned other-media materials that accompany this programme?

11. What type of programmes does the audience currently prefer?

12. What does the audience already know about the topic of the programme:

    a) Is the subject matter something they talk about frequently as a real concern or problem in their lives?

    b) Is it something they've heard about but don't pay much attention to?

    c) Is it something new that the audience is currently unaware of?

    d) Do the experts (authorities) in this subject consider that the information is vitally important to the audience?

    e) Or is this something the experts see as interesting but not necessarily vital?

    f) Is the audience likely to resist or reject the information in the programme for any of the following reasons:

       - it creates too much work
       - it is too difficult
       - it is too strange and new
       - it contradicts what they've been taught previously
       - it contradicts traditional beliefs
       - there are other, more important, things to concentrate on.

g) What members of the community could be most affective in helping the audience overcome these resistances and reactions?

SELECTING THE MEDIUM

1. What are the special characteristics of radio that make it different from any other medium?

2. What are the advantages of radio as an instructional medium?

3. What are the disadvantages of radio as an instructional medium?

4. Why are you considering radio as a medium for your message?

5. Do you think radio can carry these messages successfully alone, or will you need to use another medium (or media) as well? Discuss and decide on what else you will need.

6. Do you plan to use any follow-up activities after the programme? If so, what will these be?

CHECKING SPECIAL CONCERNS

1. Are there any dangers if the audience is misinformed or if they mis-apply the information?

2. Is the programme asking the audience to make use of resources they do not have and cannot obtain?

3. Will there be immediate tangible or visible results if the audience follows the programme advice? Or should they be informed that things may not change or appear to change for some time?

4. Will the application of the programme principles arouse criticism or even fear from neighbours?

5. Is there a particular time restriction on this information? Must it be given at a particular time of the day, the week, the year?

6. Are there particular financial or logistic restrictions on this programme production?

   (For example does it require a lot of travel when there is neither money nor a vehicle available for travel?) (Does it require the presence of certain authorities who are available only at specific times?)

CHOOSING A FORMAT

In the light of all that you now know about your audience and your message, it is time to select your medium. What will be the best format for the presentation of your particular message to your particular audience?

Some Possible Formats

Speech
Interview
Actuality
Panel discussion
Drama
Magazine
News
Spot (Hard sell)
Feature
Lesson
Quiz
Question and answer
Request

In choosing the format for your programme you should take into account the following (as well as everything so far discussed):

Length of program
Availability of "talent" (Writers, actors, musicians, technicians)
Amount of time available for preparation
Suitability of medium (format) to message (subject matter)

FORMAT CHOSEN FOR THIS PROGRAMME:

RADIO PROJECT PLAN

DESIGNING THE PROGRAMME

PURPOSE

To demonstrate _____

OBJECTIVES

Audience will _____

_____

_____

SCRIPT/PROGRAMME OUTLINE

FACILITIES AND PERSONNEL

List here all personnel required, such as writer, producer, actors, musicians, other talent (people you will be interviewing).

Write down the name and address of the people who will fill these jobs, and the date on which you contacted them to make the arrangements:

POSTION	NAME & ADDRESS	DATE

POSSIBLE FINANCIAL NEEDS

Make note here of any aspects of the production which are likely to go beyond your normal broadcast budget.

PRE-PRODUCTION NEEDS

On this page, list all sound effects, music and any out-of-studio recording you will need, togetner with an indication of sources for effects and music, and time for external recording:

REQUIREMENT	LOCATION	TIME
example: FX COW MOOING	BBC record no. SFG/245, Band 4	
THEME MUSIC	Tape No. 54A	
MAYOR'S OFFICE INTERVIEW MAYOR	City Hall	Thursday, May 13th; 3 p.m.

APPRAISAL

A: YOUR OWN APPRAISAL

At the end of the project, note here your own assessment of your project. Indicate those areas with which you were particularly pleased, and those areas that caused you most problems:

B. PEER/ADVISOR APPRAISAL

Your advisor will use this area for comments that might assist you to overcome some of the difficulties you experienced:

APPENDIX D

SKILLS SESSION ON SCRIPT WRITING, TECHNICAL PRODUCTION, AND EVALUATION

APPENDIX D

OUTLINE OF TECHNICAL SESSION ON TECHNICAL PRODUCTION SCRIPT WRITING AND PROGRAM EVALUATION

The following section outlines the key points covered by each of the three instructors during the three days set aside for technical skill development in script writing, technical production and program evaluation. The full consultant reports are available from the Academy.

A. Script Writing

The first stage of the workshop involved the participants in a pre-program planning experience, designed to allow them to see the complexity of issues that must be faced before a script is written, or a word is recorded.

The other aspects of script writing covered in the workshops were:

Planning the instructional design of the program: the purpose and the measurable objectives; choosing a format; matching the message (purpose and objectives) with the medium (format); outlining the program -- introduction; body (content) and conclusion; determining the relationship of content to program time; special considerations of radio; script layout (participants were referred to the Kenya R.L.A.P. manual for assistance in these two areas); and the choice and use of language in radio programs.

During the course of the workshop, participants -- working in groups -- were required to plan and script a complete program (10 minutes in English; 15 minutes in local languages) which was then taken to the production stage.

Each participant was exposed to one full day of script writing instruction, and then involved in the small group experience of preparing the script for a program that would be produced in the course of the workshop.

B. Technical Production

Since it was difficult to accurately judge their level of expertise in advance the session began with an explanation of the components of the portable radio production studio, how each piece of equipment operates, and how they are connected together to perform different functions such as dubbing and mixing.

After first demonstrating the operation of the equipment we turned to the table on which it was spread out so the students could see how each of the cables was connected. I explained the logic behind the wiring configuration and how it could be altered to meet different production situations such as dubbing from cassette to open reel and then back to casette for the final mix. This is often necessary since the equipment package we brought to the Gambia has only two cassette playback units, the minimum for tape mixing. I also demonstrated how the GE cassette machine could be connected to the system to provide a third tape source.

To test that understanding I disconnected everything and let the students explain how to reconnect it. At several points I followed some mistaken instructions in

order to demonstrate the problem that would be created. For the most part, however, all of the students seemed to absorb the information quickly and accurately, to the point of suggesting some configurations I had not thought of before.

During the first session, which was held on Wednesday, June 9, we discussed the different types of microphones and their uses in various recording situations. Also I demonstrated tape editing on the Akai recorder.

For the second group on Thursday which consisted of beginners, I decided to concentrate more on field recording since these students were less likely to become involved in studio production, especially unsupervised studio production, anytime in the near future.

Some of the participants do have responsibility for interviewing people on tape using portable equipment. For that reason we discussed at length the pros and cons of cassette versus open reel (Uher) recording, the correct use of the microphone, how to clean the heads on the various machines, and how to dub from casette to open reel tape.

Various members of the group made test recordings using the GE machine and external mike in order to more completely understand its features and capabilities. We closed with a demonstration of music tape editing in Radio Gambia's General Purpose studio to illustrate that even the most demanding kind of tape editing can be done quickly and easily.

For the third group, who had been judged to be the most experienced in broadcasting, I demonstrated the portable production studio and proper recording techniques using the GE cassette deck. The group was very interested in the use of cassette machines for field recording and concerned that Radio Gambia would not make available facilities to dub from cassette to open reel tape. We discussed the problem at some length including the arguments for and against cassettes. Finally we practiced tape editing on both the Akai machine and the machines in the General Purpose studio (Ampex 440's). I also demonstrated music tape editing, the use of continuous tape loops for sound effects and background ambiance, and reverse tape threading for segment backtiming, all of which generated much interest and comment. The sessions did serve to demystify some of the technical aspects of radio but more time should have been allotted for detailed instruction for those most interested in the subject.

C. <u>Program Evaluation</u>

1. Review Monday and Tuesday

   a. Three problem analysis questions (What are they doing? What advice? Why aren't they doing it now?)

   b. Five steps in program planning (purpose, content, media, audio and authority)

2. We make a series of assumptions each time we produce and broadcast a radio program. Evaluation helps us test the accuracy of our assumptions.

EXAMPLE: "Farmers should prepare their seeds"

People = Listen ^ EVALUATION Understand ^ EVALUATION Accept ^ EVALUATION Perform Correctly ^ EVALUATION Benefit

WE MUST BE PRACTICAL IN SETTING GOALS	30%	15%	10%	2%	1%
EVALUATION CAN HELP IDENTIFY WHAT MIGHT HAVE GONE WRONG	No radio No time No batteries	Language Distraction Didn't hear complete message	Values Other sources contradict	Lack resources Forbidden No time	No rain No fertilizer Wrong seed Didn't weed

AN EVALUATOR IS NOT AN EDUCATOR. HE DOES NOT TRY TO CHANGE PEOPLE - BUT TRIES TO UNDERSTAND HOW PEOPLE FEEL, THINK, AND ACT.

3. Two kinds of evaluation:

   a. Summative:

      Tells us whether we achieved our big objective - what we achieved - takes place during and after the program has ended.

   b. Formative:

      Helps us improve our programs. Takes place before and during our program. Three types to be discussed.

      Concept Testing

      - Purpose:

        - to understand how people feel about a problem;
        - to develop ideas on what advice to give;
        - to test our understanding of a problem;
        - to collect precise vocabulary-language for our programs.

      - Respondents:

        - Group 5-6
        - Homogeneous (alike)

      - What to Ask (Interview Guide):

        Starter (generator) Questions, Probing Questions (probes), Get people to talk as much as possible, provide discussion.

        - Why do you think that happened?

- Can you think of anything else?
- Well what about _____?

- Administration:

  1 interviewer + 1 recorder
  3-6 groups in different villages

  - Presentation
  - Develop question with group on juvenile problem
  - Break into 4 groups and have them develop interview guide on their topics
  - Feedback in large group.

Pre-Testing

- Purpose:

  To test how well a particular program works before broadcast

- Respondents:

  Individuals from target audience

- What to ask/Interview guide:

Comprehension	-understand
Relevance	-importance
Believability	-believe-credible
Acceptability	-like-accept
Attention	-interesting

Comprehension-

a) Content analysis

b) What happened in program:

Would you have done the same thing?
Do you agree with the character?
What would you have done?

c) Did anything bother you about the story?

d) What did you like best/least?

Monitoring

- Purpose:

  To test impact of program after it has been aired.

- Respondents:

  Large number of potential respondents interviewed at meeting places or in the home

- What to Ask:

  - Few questions
  - short "yes or no" answers
  - no probes

- Administration:

  - presentation
  - review all three forms of formative evaluation
  - stress that evaluator is not an educator

4. Compare different kinds of questions for Concept, Pretesting, and Monitoring.

Concept:	"How do you feel farmers should prepare for the rainy season?" "What else do they need to do?"
Pre-Test:	"What did the program say should be done to prepare for the rainy season?"
Monitoring:	"Should farmers oil their tools before or during the rainy season?"

Sample Program Scripts Used For Content Analysis And Pre-Test Instrument Development

SCRIPT 1

FARMER 1: My friend, what are you doing?

FARMER 2: Oh, I am oiling my tools.

FARMER 1: Why, the rain's have not even started yet. You are wasting your time. Come and talk with me. Let's go and have a beer together.

FARMER 2: No. I have to be ready when the rains do come. There are many things to do and I will not have time to repair my tools when the rains come.

NARRATOR: Now is the time to prepare for the rains. Oil your tools, dress your seed, and prepare your land.

SCRIPT 2

MOTHER 1: Sigga, come quick. Your baby fell in the well. Come quick, Oh hurry, hurry!

MOTHER 2: Oh No! My baby! What has happened? How did she fall in the well? Marie, Marie, where is my oldest daughter, Marie?

MARIE: Here I am Mother. Oh, I left my sister alone. I was playing ball with my boyfriend and then I heard her scream. Oh Mother, I am so sorry.

VILLAGE MAN: (Sound of shouting) Throw your rope down. Pull gently. Here is the baby. Safe and sound.

MOTHER 2: Oh, my baby. My baby. I am so glad you are all right. If only I had somewhere to leave my baby when I go to work. My daughter Marie is too irresponsible to care for the baby.

NARRATOR: Sigga, listen to me. Talk to other mothers and form a day care center with them. Working together day care centers protect all the village babies.

SCRIPT 3

HUSBAND: Alicia, thinking about our wellbeing and our children's, I feel it is time to make a decision.

WIFE: Do you mean about family planning?

HUSBAND: Yes. We already have two children and there's no reason we should have more...

WIFE: I'm happy that we agree. For all our efforts, we could never provide for more children all that they need - food, a home, schooling, and a lot of love

HUSBAND: Right! We have got to do something. Perhaps I could get a vasectomy or you could get sterilized. The best would be to go to the Health Clinic, the Demographic Association, or Social Security, for them to advise us as to the best way not to have any more children.

NARRATOR: Family Planning is a right of all and a duty of everyone.

APPENDIX E

PARTICIPANT EVALUATION FORM AND RESPONSES

RADIO PRODUCTION SEMINAR

EVALUATION

1. Define the difference between programme purpose and programme objective:

   Purpose: What the program will demonstrate or show.

   Objective: The measurable changes in the behavior or attitudes of the audience.

2. In the following list, there are three things which you should take into account when choosing a programme format. Circle these three things:

   a. time of day of broadcast
   b. the audience
   c. topic/content
   d. language used for broadcasting
   e. availability of talent
   f. type of music used

3. Give a brief explanation of the work done by each of these parts of a programme:

   Introduction: Suggests topic and attracts audience.

   Body: Covers the content.

   Conclusion: Summarizes and leaves ideas with audience.

4. What type of programme is most suited to each of the following formats:

   News: What is happening NOW.

   Documentary Feature: Something that happened is the PAST/human interest.

   Panel Discussion: Topic that has two or more sides to it.

5. Write a few comments on what you can do to control the timing of a programme:

   Check content against program length. Use music. Time things as you go.

6. How does the role of the evaluator differ from that of the educator?

   Evaluator learns. Educator teaches.

7. Which form of evaluation is most useful in helping us improve a specific programme or programme script?

   Pretesting.

8. If you wanted to explore the issue of bottlefeeding vs. breastfeeding with young mothers in Banjul, which of the following questions would be best for your concept testing session? (Pick the one you think is best.)

   ___ How many children do you have?

Why do you feel some women are now deciding to bottlefeed rather than breastfeed?

___ Are you married?

9. Which of the following quetions can best classified as a "probing" question? (Pick the one you think is correct.)

___ Where do you live?

___ Are women today better mothers or worse mothers than their own grandmothers used to be?

___ Can you think of any other reason why?

10. How many respondents are ideal for a concept testing group? 5-6

11. Briefly list three things that should always be done before taking a tape recorder into the field to make a recording:

Clean and check batteries, be sure you have clean tape, test and check microphones.

12. List three simple procedures for cutting down on the recording of unwanted background noises when taping in the field:

Put interviewee with back to noise; use mike screen; tell people to be quiet; move into quiet area; keep mike close to inteviewee; hold mike cable in hand which holds mike (b. below).

13. Which of the following is false? (Pick the one that is false.)

a. When batteries in a cassette machine become weak, it will not record at the proper speed.

b. Holding part of the end of the mike cable that is attached to the mike in the same hand you usé to hold the mike will reduce the chance of picking up unwanted mike handling noise on the tape.

c. One of the most common mistakes in field recording is holding the microphone too far away from the person being interviewed.

d. The omnidirectional microphones we used with the GE cassette recorders are very sensitive to wind noise and cannot be used when there is even a light breeze blowing.

14. Which is worse: recording at too high a level or too low? Explain briefly.

Too high a level will produce a distortion we can't correct later.

15. List two advantages of using a casette machine instead of an open-reel machine like the Uher in making field recordings:

Easier to carry. The tape is cheaper.

16. Of the three topics discussed (scriptwriting, evaluation, and technical production), which was the newest to you?

Answers received: Scriptwriting 5, Evaluation 15, Technical Production 7.

17. What aspect (or aspects) of the workshop do you think will be most helpful to you in the future?

Answers received: Scriptwriting 14, Evaluation 14, Technical Production 3, All 4.

18. What did you most enjoy during the workshop?

Answers received: Evaluation 11, Scriptwriting 9, Technical Production 7, Working in Groups 4, Cooperation 1, Field Activities 2, All 1.

19. What did you feel was of least benefit to you during the workshop?

Answers received: Technical Production 5, Evaluation (Pre-Testing) 2, All 12, Long Lectures 1.

20. If there was to be a follow-up workshop, what topic(s) would you like to see it deal with?

Answers received: Radio Listening Groups 1, Renal Innovation 1, Technical Production 2, Evaluation 11, Script Writing 7, Interview Techniques 1, Radio Production 2, TV 1, News Reporting 3, Women's Programs 1.

APPENDIX F

LIST OF EQUIPMENT, MATERIALS AND SUPPLIES
PRESENTED TO RADIO GAMBIA

Academy for
Educational
Development

AED
International Division

June 19, 1982

Mr. Abdou Janha
Permanent Secretary
Ministry of Information
and Tourism
Marina Parade
Banjul, The Gambia

Dear Mr. Janha:

The Academy for Educational Development through its contract Studies in Facilitating Learning with the Office of Education, Bureau for Science and Technology of the Agency for International Development, is pleased to provide the attached list of equipment and materials to the Government of The Gambia. We hope that these materials will be used to contribute to the Government's continuing efforts to promote rural development among all the nation's people. Specifically, we hope that the Ministry of Information and Tourism and Radio Gambia will develop an administrative system to ensure that the portable taping equipment will be made available to the content ministry personnel involved directly with radio program production.

It has been a great pleasure to work with you and your personnel, and we look forward to a similar opportunity in the near future.

Cordially,

William A. Smith
Vice President

Enclosure

WAS/ab

Best Available Document

1[illegible] Street, N.W.
Washington, D.C. 20037
[illegible]

285

[illegible] Materials Inventory List

Quantity	Item
50	New Elements for Organizing a Development Communication Process
50	TTC Radio "Sunday Morning," Documentary Production Style Guide
10	Community Learning Circle
10	Making Radio: Radio Journalism (abridged version)
24	Writing The Instructional Radio Script
4 (through [illegible])	" "
-	Reference Materials Folders
	(1) Sourcebook on Radio's Role in Development
	(1) Radio Mathematics in Nicaragua
	(1) Clearinghouse on Development Communication
	(1) Development Communication Report, #[illegible]
	(1) Academy for Educational Development: Journalist's Guide

Quantity	Documents
1	Radio Village Education Project: Guatemala 2nd Interim Report [illegible]
11	Radio Mathematics in Nicaragua
9	Sourcebook on Radio's Role in Development
1	Clearinghouse on Development Communication
3	Development Communication Report #37

APPENDIX G

LIST OF INVITEES

LIST OF INVITEES TO THE RECEPTION AND THE OPENING AND CLOSING CEREMONIES OF THE RADIO PRODUCTION SEMINAR-JUNE 7-19, 1982
TROPIC GARDENS HOTEL, BAKAU.

1. Mr. & Mrs Thomas Moser
C/O USAID Office
6 Buckle Street
Banjul

2. Mr. Keith Simmons
C/O USAID Office
6 Buckle Street
Banjul

3. Ms. Cynde Robinson
C/O USAID Office
6 Buckle Street
Banjul

4. Dr. Peter Spain
MMIH Project
C/O USAID Office
6 Buckle Street
Banjul

5. Hon. & Mrs Larry G. Piper
U.S. Ambassador
U.S. Embassy
16 Buckle Street
Banjul

6. Assistant Director Broadcasting
Radio Gambia
Mile 7
Banjul

7. Permanent Secretary
Ministry of Information & Tourism
Marina Parade
Banjul

8. Permanent Secretary
Ministry of Agriculture
and Natural Resources
Central Bank Building
Buckle Street
Banjul

9. Director
Medical & Health Department
Banjul

10. Dr. R.S. Bowers
Medical & Health Department
Banjul

11. Registrar of Coops
Cooperatives Dept.
Marina Parade
Banjul

12. Director of Fisheries
Fisheries Dept
Marina Parade

13. Director of Agriculture
Agriculture Dept.
Cape St. Mary.
Bakau

14. Establishment Secretary
The Quadrangle
Banjul

15. Assistant Director Information
Information Office
Banjul

16. Chief Engineer
Radio Gambia
Mile 7
Banjul.

17. Permanent Secretary
Ministry of Economic
Planning and Industrial
Development

18. Ag. Director of Forestry
Forestry Department
Yundum.

19. Director of Community
Development Dept.
Department of Community
Development
Wellington Street
Banjul.

20. Director, Dept of Animal
Health & Production
Yundum

21. Officer-In-Charge
EAU
Yundum

22. Ag. Senior Broadcasting
Officer
Radio Gambia, Mile 7
Banjul.

23. Ag. Head Rural B/C and
Adult Education
Radio Gambia
Mile 7
Banjul

24. Ag. Head English
Radio Gambia
Mile 7
Banjul

25. Head of News & Current Affairs
Radio Gambia
Mile 7
Banjul.

26. Head of Local Languages
Radio Gambia
Mile 7
Banjul.

27. Senior Information Officer
Information Office
Banjul

28. The Chief Film Producer
Film Production Unit
Marina Parade
Banjul.

29. Mr. Siam Kinteh
Non-Formal Education, Banjul

30. Dr. Hatib Njie
Medical & Health Department
Banjul.

31. Ms. Meri Ames
Peace Corps Office
Buckle Street
Banjul

32. Mr. Seringe Fye
Radio Gambia
Mile 7
Banjul

33. Dr. William Smith
C/O Bungalow Beach Hotel
Bakau.

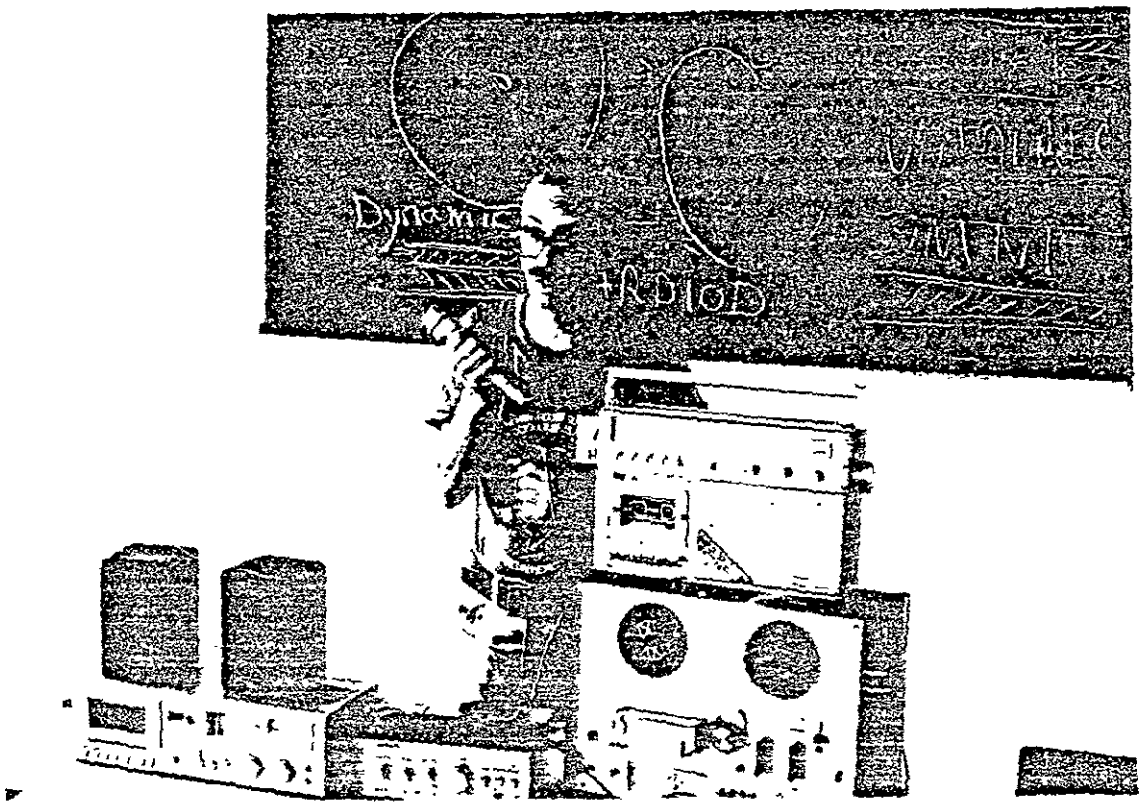
34. Ms. Esther de Fossard
C/O Bungalow Beach Hotel
Bakau.

35. Mr. Al Hundley
C/O Bungalow Beach Hotel
Bakau.

APPENDIX H

PHOTOGRAPHS

RADIO GAMBIA



APPENDIX F

HAPPY BABY LOTTERY DESCRIPTION

APPENDIX F

MASS MEDIA FOR INFANT HEALTH PROJECT
DESCRIPTION OF THE "HAPPY BABY LOTTERY"

General Background

The "Happy Baby Lottery" was an important part of the Mass Media for Infant Health Project's overall campaign to teach rural mothers in The Gambia how to prevent and treat infant diarrhea. The central idea of the lottery was to provide a structure for an intensive period of education, using both graphic materials and radio messages, and some incentives—the lottery prizes—to encourage mothers to participate in this educational process.

The lottery was conducted as follows:

- **Distribution of Lottery Tickets, August 16-30**

  The Mass Media Project team distributed some 200,000 educational handbills to health centers throughout the country. Some of the handbills were in turn distributed to village volunteers who had been trained by the health staff in the proper treatment of diarrhea and who had a red flag hanging in their compound as identification. These handbills, or Mixing Pictures, provided visual instructions for mixing a sugar-and-salt rehydration solution—one of the main lessons of the Mass Media Project. The Mixing Pictures also served as the lottery tickets—a women needed one to participate in the lottery.

- **Pre-Lottery Publicity, August 30 - September 11**

  Radio Gambia gave intensive publicity to the lottery. The publicity explained the operation of the lottery, stressing that mothers only were eligible and that mothers should obtain the necessary Mixing Pictures from the local health center or Red Flag Volunteer. It also stated that alkalos from villages that did not have a Red Flag volunteer could obtain the Mixing Pictures for the women in their villages from the health center.

- **Village Contests, September 11 - October 9**

  During each of the four weeks, the names of 18-20 villages (a total of 70-80) from all over the country were selected and announced over the radio. Each village was visited by a trained judge (local health inspectors). To enter the village contest, a mother needed a Mixing Picture and knowledge of properly mixing and administering the sugar-and-salt solution. The judge then conducted a drawing to choose 20 women from among those present. Each woman who correctly demonstrated how to mix the sugar-and-salt solution won a small prize—a bar of soap or a plastic cup. She then became eligible for the Grand Prize drawing on October 9.

- **Grand Prize Drawing, October 9**

  On October 9, following the four weeks of village contests, the drawing for Grand Prizes--15 radio cassette players--was held over Radio Gambia. The winners were drawn from the names of the winners in the village contests by a prominent Gambian. Five Community Prizes for the communities that participated most actively during the village contests also were announced. The prizes were distributed the following week by members of the Mass Media Project team and Radio Gambia staff.

APPENDIX H

ECUADOR TRIP REPORT

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ISN=36837

TRIP REPORT

Quito, Ecuador

August 11 - August 17, 1982

William A. Smith

This planning visit was financed through Contract AID/ta-C-1473, Studies in Facilitating Learning, with the Office of Education, Bureau for Science and Technology of the United States Agency for International Development.

EXECUTIVE SUMMARY

1. The current national diarrheal disease control project has done a lot, but accomplished little. It has produced 10,000 posters, 20,000 pamphlets, and a slide-tape program; trained/oriented 1,200 people; distributed 321,000 packets of oral rehydration therapy (ORT) salts; prepared two training modules; and set up a rehydration ward. The project also cooperates with the national literacy program and ORT instruction is included in university curriculum. Yet, in spite of these initiatives, there is practically no evidence that ORT is widely used; and there is quite a bit of evidence that medical resistance to the use of ORT continues. In addition, the quality of almost all materials produced is low. The diarrhea program lacks impact.

2. The central reason for the lack of success is that too much was attempted too soon, with too few resources.

3. Critical elements are missing (a rural focus, pre-testing, a consumer orientation, a cohesive strategy, and sufficient political leverage with physicians) and basic questions are unanswered (mixing instructions, boiling water, product purpose). In addition, no differences are being made between the coastal and highland regions.

4. Two things now need to be done:

   - Design a model for a small scale pilot program to address these issues (duration of approximately 18 months).

   - Get significant additional resources for a truly national program (cost of approximately $300-$500,000).

5. To begin a model project, the program needs help in:

   - Tailored rural investigation
   - Planning and overall strategy development
   - Print materials production
   - Materials testing
   - New training designs
   - Radio production and broadcast scheduling
   - Evaluation/monitoring
   - Convincing the medical community of the value of ORT, or at least reducing their resistance.

6. Three ways the Academy for Educational Development can help:

   Model 1: Intensive Seminar. A three-week intensive seminar would be designed with multiple objectives, including workshops focusing on concerns of the medical community, training, and radio production.

Model 2: Phased Assistance. This assistance would include the seminar of Model I along with special help in investigation, planning and training.

Model 3: Resident Advisor. A resident advisor would provide six months of continous assistance, motivation, and expertise in all eight areas listed in number five above.

7. Estimated cost of each model:

		Short-term TA	DRI Diarrhea Education and Training Costs	Central Contract (1473)
Model 1	3-week seminar on DDC	—	$10,790 49,492* $60,382	$22,782
Model 2	3.5 mos. of TA (starting on 10/82)	$33,406	$60,282	$30,407
Model 3	6 mos. full-time TA (starting on on 3/83)	$77,288	$60,282	$30,407

*materials needed to support local campaign

DETAILED TRIP REPORT

I. OBJECTIVE

To determine how a workshop on diarrheal disease control could strength Ecuador's national program of diarrheal control.

II. ACTIVITIES

- Meetings and discussions were held with the following persons:

  Dr. Ligia Salvador
  Dr. Eduardo Navas
  Ms. Rubi Rodríguez de Moreano
  Dr. Gustavo Estrella
  Dr. Guadalupe Pérez de Sierra
  Lic. Carlos Rosero
  Dr. Enrique Estrella
  Mr. Ken Farr

- Existing material of diarrheal control program was reviewed.

- Radio and television spots for Expanded Program of Immunizations (EPI) were reviewed.

- Posters for EPI were reviewed.

III. ANALYSIS OF THE SITUATION

A. NATIONAL DIARRHEA DISEASE PROJECT ACCOMPLISHMENTS TO DATE

1. Establishment of a rehydration ward in the Hospital de Niños Baco Ortiz directed by Dr. Enrique Chiriboga.

2. Funding for study of "free water" and oral rehydration regimen from the Pan American Health Organization (PAHO).

3. One day orientation/training for 1,200 medical personnel (physicians, nurses, auxiliary nurses, health inspectors) and 400-500 community leaders.

4. Development of three posters and printing of approximately 3,300 copies of each.

5. Distribution of 20,000 eight-page pamphlets to sub-center personnel for distribution to patients. (Cost of each pamphlet is approximately two sucres, for a total cost of 40,000 sucres).

6. Development of training modules for medical personnel and communmity leaders.

7. Development of slide-tape program and its distribution to each province. (The program is seventeen minutes long with 80 slides and was designed for use by auxiliary nurses with middle class women.)

8. Coordination with national literacy program to provide diarrhea disease orientation to Ministry of Education (MOE) field-workers.

9. Distribution of 321,000 packets of Oralyte (the local name for oral rehydration salts).

10. Requisition of 1,400,000 new packets of Oralyte.

11. Consideration and study of local commercial production of packets through two laboratories, CIBA-GEIGY and KBI.

12. Inclusion of ORT in university pediatric training.

B. RESOURCE CENTERS FOR PROGRAM

1. División de Morbididades Más Frecuentes

This division of the Ministry of Health (MOH) is in charge of respiration, tuberculosis and diarrheal diseases. The staff includes:

- Director (Dra. Salvador)
- 3 Doctors
- 1 Nurse
- 2 Inspectors
- 1 Secretary

2. División ce Educación en Salud

The staff includes:

- Director
- 2 Trainers
- 2 Planners
- 2 Audio-visual Specialists
- 2 Community Developers
- 1 Artist
- 82 Field personnel throughout the country

3. Oficina de Relaciones Públicas

Resources in this office include contacts with:

- Radio and television stations
- Commercial publicity houses
- Printing houses
- Pharmaceutical houses

4. Desarrollo Rural Integral (DRI)

Resources include:

- Budget for diarrheal diesease control program including monies for packets, training and educational materials, observational travel, and training seminars. Program efforts are concentrated in three areas of three provinces: Química, Chimborazo; Salcedo, Cotopaxi; and Jipijapa, Manabi.
- Baseline investigation of rural health variables

5. Ministry of Education Literacy Program

- Large staff
- Extensive experience in rural areas
- Active director
- Willlingness to cooperate

6. Other Resources (not investigated)

- PAHO
- Peace Corps
- Communication Unit
- Appropriate Technology for Rural Women Program

C. OBSERVATIONS

1. None of the materials produced to date have been tested in the field and very little is known about their effectiveness.

2. Resources have not been available for any follow-up to training sessions.

3. The program has tried to do too much at one time with too few resources.

4. The face value of materials suggests

- excellent production facilities
- poor instructional design
- production aimed at urban audiences

5. The program lacks thrust, purpose, and clear, realizable goals. The program elements are not integrated but individual, and much of the content is useless and confusing. The approach is very traditional.

6. Considerable resistance to the program continues to exist within the MOH and the medical community.

7. The director of the program is a dynamic, committed individual who has much too much to do.

8. The general problems of rural medicine, particularly in the sierra of Ecuador, are enormous. The system of rural doctors being transferred from one year to another with little supervision and less enthusiasm on their part for rural service, coupled with the profound resentment and suspicion of indigenous people to modern medical care, makes any kind of traditional approach almost hopeless.

9. The diversity of culture in Ecuador (indian, mestizo, and coastal) is so great that a single national program is not justifiable.

10. The commercial advertising and media system, which is quite sophisticated, lacks audience orientation. Regarding rural audiences, the system lacks any significant experience at all.

IV. RECOMMENDATIONS

A. Diarrheal disease control is so important, i.e., diarrhea is the single largest cause of infant death, that it requires special attention.

B. The national program should be deemphasized in favor of a regional pilot in three representatives zones.

C. The DRI program presents a perfect opportunity for this pilot.

D. The pilot should include the following elements:

1. A rural distribution system for ORT Salts which provides for widespread availablity through existing health sub-centers and trained community leaders:

2. A series of print materials with a single motif which unifies the campaign:

3. A series of radio programs, built around the same motif, which promote and teach proper use of ORT salts;

4. A packet design including a locally attractive name and visual mixing instructions;

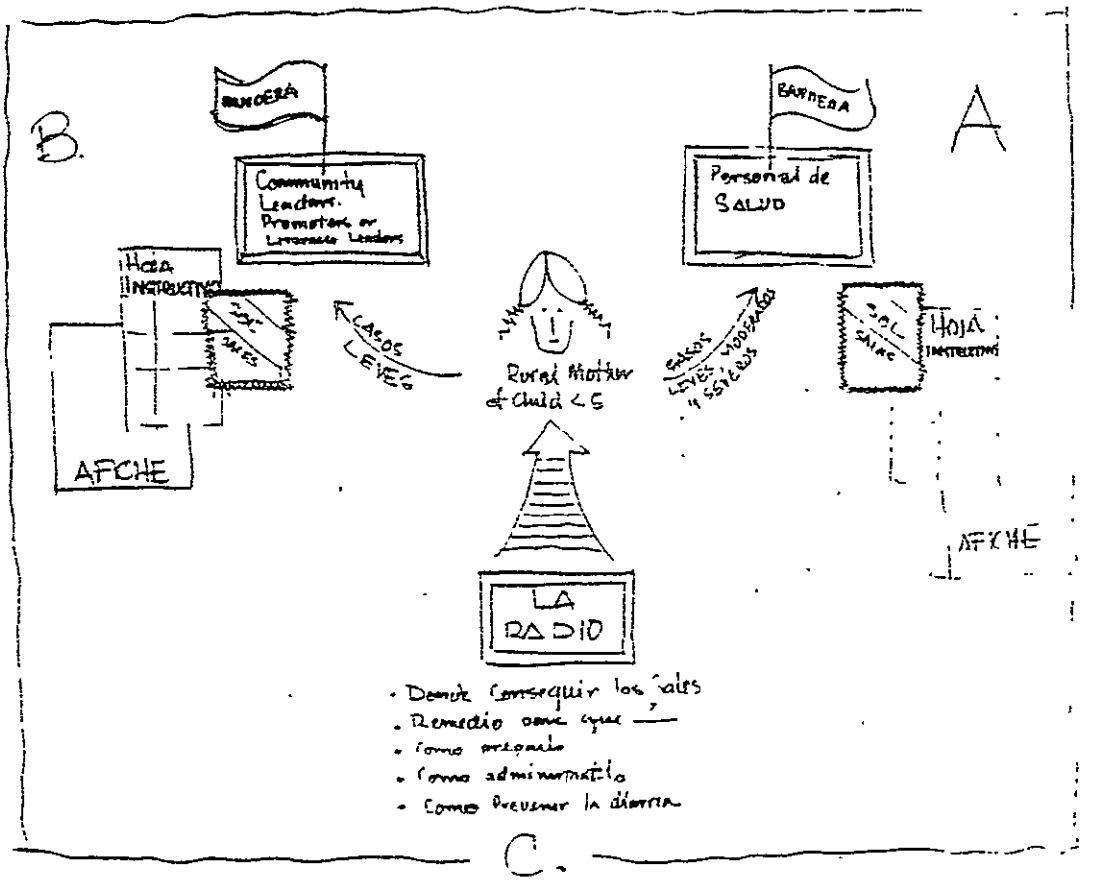
5. A short but intense period of rural investigation of the following topics:

   - Packet motif and instruction
   - ORT mixing difficulties
   - Administration difficulties
   - Competing remedies
   - Conceptual framworks of rural women to diarrhea
   - Radio reach and frequency;

6. A systematic and regular pretesting and monitoring procedure to determine if materials are effective; and

7. A phased development of the program to ensure extensive media saturation during seasonal peaks of diarrhea.

E. The resulting system should provide the following integration of elements around the rural mother as a central focus.



Elements of this system should include:

1. Radio

   - Three radio spots per region (total of nine) for four months
   - Two weekly programs per region for four months

2. Print

• Poster	25,000
• Instructional flyer	50,000
• Packet label	250,000
• Flag	500
• Training modules (2)	1,000

3. Training

• Trainers	6 people
• Community leaders	150 people
• Health personnel	60 people

F. To achieve this goal it will be necessary to provide specialized technical assistance in four areas:

1. Behavioral tasks analysis and message selection
2. Materials testing and monitoring
3. Overall campaign planning and integration
4. Radio program development and production

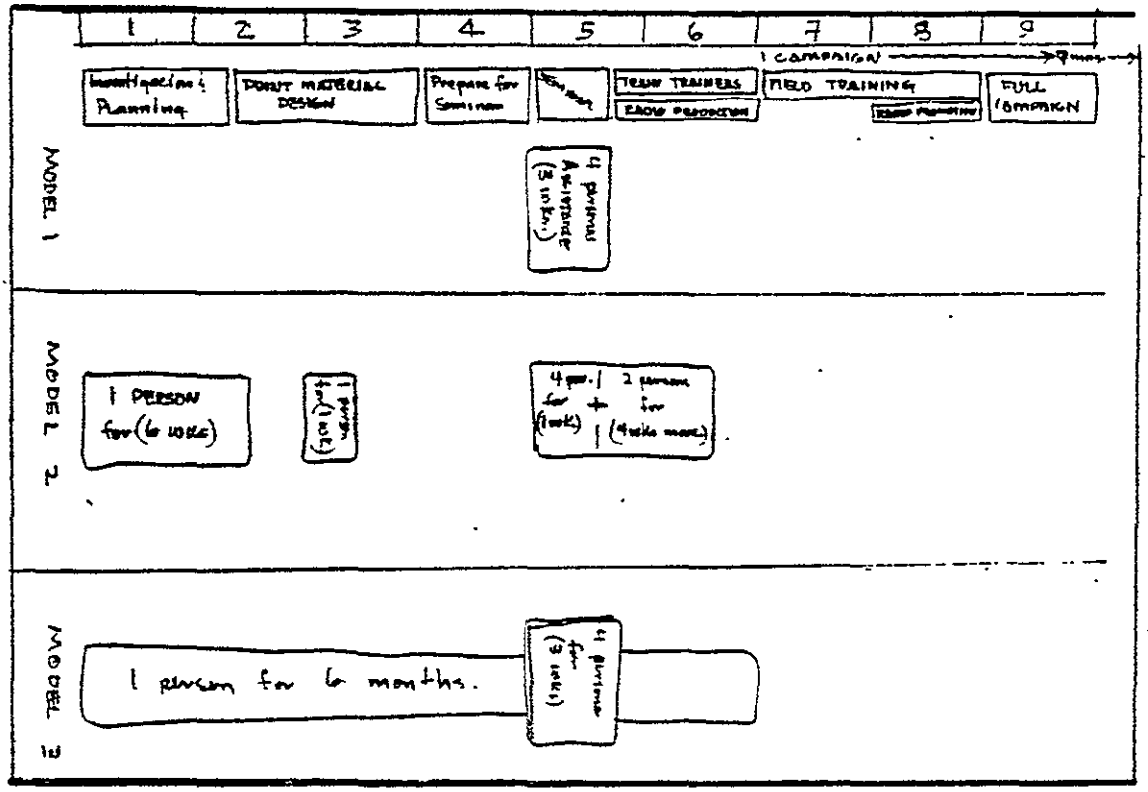
G. This assistance can be provided in a variety of ways. Three models are suggested below.

Model 1: Intensive Seminar. A single, intensive seminar bringing several consultants together at a single time to focus on one or two areas of importance. The advantage here is cost.

Model 2: Phased Assistance. A series of consultants providing short-term assistance in specific areas during the course of the program. The advantage of this model is that broader expertise is provided at low cost.

Model 3: Resident Advisor. A single individual for a period of six to twelve months to provide regular assistance in each of the four areas. The advantage of this model in that regular, on-going supervision of the program is maintained and maximum assistance is provided at lowest possible costs.

The three models are summarized in the following chart.



In determining what a program of this nature might cost and how it might be financed, the program is divided into three elements:

- Cost of short-term technical assistance covered by DRI resources;
- Cost of local production, including training seminar, radio programs, and print material; and
- Cost of technical assistance that <u>might</u> be covered by central contract (1473) funds, outside of existing DRI resources.

The following budget summary represents a rough draft estimate of the possible costs of each model.

		Short-term TA	DRI Diarrhea Education and Training Costs	Central Contract (1473)
Model 1	3-week seminar on ODC	—	$10,790 49,492* $60,282	$22,732
Model 2	3.5 mos. of TA (starting on 10/82)	$33,406	$60,282	$30,407
Model 3	6 mos. full-time TA (starting on on 3/83)	$77,288	$60,282	$30,407

*materials needed to support local campaign

H. DETAILS OF EACH PROPOSED MODEL

Model I: Intensive Seminar. The proposed seminar would include four basic activities.

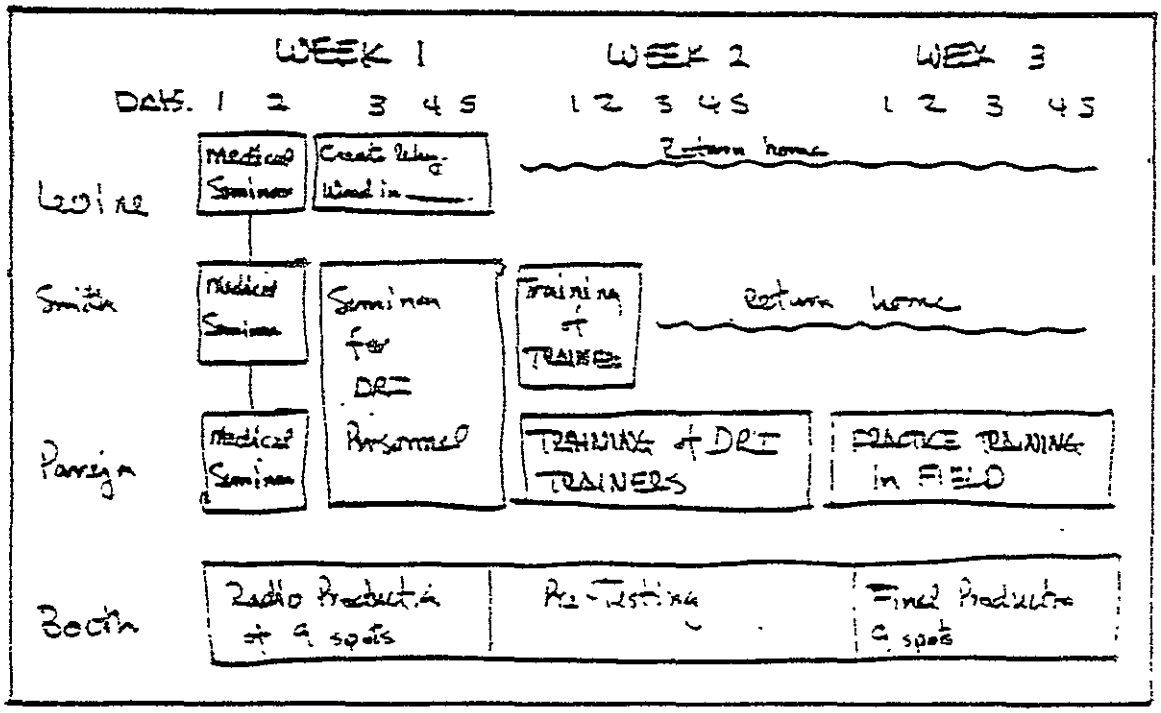
- A two day workshop for DRI personnel and leading medical figures on the latest developments in diarrhea disease control. Topics would include latest research on ORT, Ecuador's diarrheal program, and the role of public education in diarrhea disease control.

- A three-day workshop for DRI personnel on details of ORT, including practical sessions on rehydration, training needs and the use of educational materials in diarrhea disease control.

- A two-week workshop for the training of trainers in diarrheal disease control methodologies. Trainers would learn how to teach rural leaders and medical personnel about ORT, including how to mix and administer the salts and how to orient rural mothers. The second week of the workshop would include field training of health workers with consultant supervision.

- A three-week workshop for the development of nine radio spots (three for each region), including script writing, draft production, pre-testing, revision and final production.

Four consultants, Dr. Myron Levine, Dr. Reynaldo Pareja, Dr. William Smith and Ms. Elizabeth Booth, would participate in different phases of the workshop. The three weeks would be scheduled as indicated below:



Model 2: Phased Assistance. Model 2 adds to Model I early specialized technical assistance in the development and execution of a tailored investigation of rural behavior critical for project design. In addition it provides assistance in the overall development of a phased campaign plan.

Model 2 provides the following assistance:

Dr. Pareja

- Ten days for the development of instruments for:
  - Focus Group Interviewing (three groups of eight in each province)
  - Observation & Mixing Trials (three homes in each province)
  - Tailored Questionnaire (50 respondents in each province)
  - Training of Interviewers in the above three techniques
- Eleven days for the Investigation itself
- Seven days to analyze the data

Drs. Smith and Pareja

- Seven days to develop a campaign plan
- Seven days to design print material

Model 3: Resident Advisor. Model 3 provides a full-time advisor knowledgeable in all areas of program design and development during the first six months of project activity. In addition, it provides the same intensive seminar training as Model I.

I. USAID should give serious consideration to an expanded program of assistance to the national diarrheal disease program. If the proposed DRI program proves effective then expansion to national level will require sigificant additional assistance. The diarrheal program, more than some others, deserves this attention because

- It holds great promise for significantly reducing infant mortality;
- The MOH has demonstrated its committment to diarrheal disease control for over three years now;
- It is consistent with a major world health priority and serves the rural poor in the most direct way possible;
- It holds great promise for private sector involvement including support through commercial production of ORT salts; and
- It represents an opportunity to strengthen the overall health education capacity of the MOH by providing assistance in critical areas now missing.

It is estimated that an investment of $300-500,000, depending on the number of provinces included in the program, would achieve a great deal.

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Mass Media and Health Practices

IMPLEMENTATION

SEMIANNUAL REPORT NO. 8

AID/DSAN-C-0023

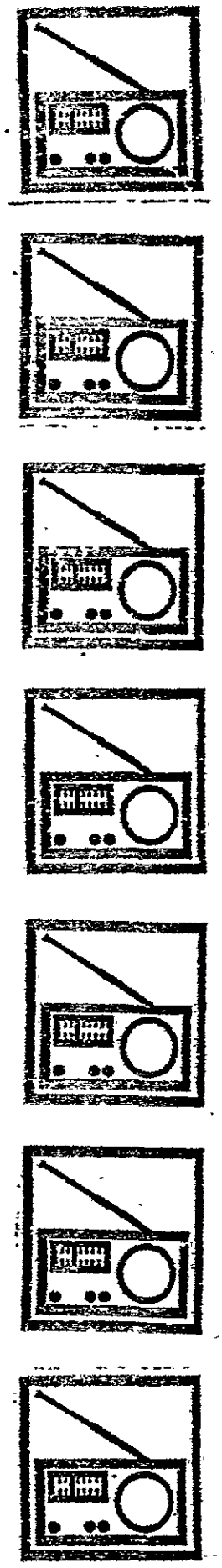
ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.

1255 TWENTY-THIRD STREET, NW, WASHINGTON DC 20037

TELEPHONE (202) 862-1900

RADIO PRODUCTION SEMINAR

THE GAMBIA

PLANNING GUIDE

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