

94 07

PDMAP-996

MASS MEDIA & HEALTH PRACTICES

PROJECT IMPLEMENTATION

Academy for Educational Development, Inc.

Jan
3,6740
3,6742
3,6744

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

Document # **16**

SEMIANNUAL REPORT NO. 4

Project Director
Dr. William A. Smith

April 1, 1980 - September 30, 1980

CONTENT

	PAGE
I. <u>BACKGROUND</u>	
II. <u>PRINCIPAL OBJECTIVES FOR THIS PERIOD</u>	
A. Prepare Developmental Investigation Plan and Conduct the Developmental Investigation for the Honduran Site	2
B. Prepare Honduras Implementation Plan	2
C. Continued Search for African Site	2
D. Identify Potential Staff for African Site	2
E. Complete Budgetary Analysis	2
III. <u>ACTIVITIES UNDERTAKEN</u>	
A. Prepare Developmental Investigation Plan	3
B. Prepare Honduras Implementation Plan	3
C. Continued Search for African Site	5
D. Budget and Analysis	5
E. Additional Activities for the Period	5
IV. <u>PROJECTED ACTIVITIES FOR OCTOBER 1, 1980 THROUGH MARCH 31, 1981</u>	
A. Honduras	8
B. African Site	8
C. Water and Sanitation Addition to the Honduras Site	8
D. Institutional Review Board Meeting	8
V. <u>ADMINISTRATIVE REPORT</u>	
 <u>APPENDICES</u>	
A. <u>TRIP REPORT: Honduras Site</u> May 18 to 30, 1980	A-1
B. <u>TRIP REPORT: The Gambia</u> July 7 to 18, 1980	B-1
C. <u>INSTITUTIONAL REVIEW BOARD</u> Reviewer's Forms	C-1

11

SECTION I.

BACKGROUND

On September 30, 1978, the Academy for Educational Development was contracted by the United States Agency for International Development to implement a five-year project designed to develop a methodology for the application of mass communication to the prevention and treatment of acute infant diarrhea in rural areas of developing countries. Simultaneously, Stanford University was contracted to evaluate the project. The project is designed to build upon past experience with communication technology and to utilize radio and fotonovelas, in conjunction with local health delivery services, to enable two cooperating Ministries of Health to use mass communication regularly and systematically in their health education programs. The effort is a joint project of the Office of Education and Office of Health within the AID Development Support Bureau.

2-

SECTION II.

PRINCIPAL OBJECTIVES FOR THIS PERIOD

- A. PREPARE DEVELOPMENTAL INVESTIGATION PLAN AND CONDUCT THE DEVELOPMENTAL INVESTIGATION FOR THE HONDURAN SITE
- B. PREPARE HONDURAS IMPLEMENTATION PLAN
- C. CONTINUED SEARCH FOR AFRICAN SITE
- D. IDENTIFY POTENTIAL STAFF FOR AFRICAN SITE
- E. COMPLETE BUDGETARY ANALYSIS

SECTION III.

ACTIVITIES UNDERTAKEN

A. PREPARE DEVELOPMENTAL INVESTIGATION PLAN

A comprehensive developmental investigation process was designed and carried out during this quarter of project activity. Detailed reports on all phases of these activities have been produced separately and are available through the AED project director in Washington. The developmental investigation included the following activities.

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

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

B. PREPARE HONDURAS IMPLEMENTATION PLAN

The results of the developmental investigation were analyzed and then used to structure the implementation plan which was prepared for official AID review. The review meeting is scheduled for December 5, 1980. Again, the plan is available from the AED Project Director in Washington. It details how the campaign is to be phased, what major objectives the campaign will pursue, and how each element is integrated to ensure maximum impact. A summary of the critical campaign decisions taken from the full-plan is included here.

1. 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 (IV) therapy. 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.

2. 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.

3. Audience Definition

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

4. Communication Strategies

- Teach the primary audience:
 - * To properly prepare and administer pre-packaged WHO formula, oral rehydration salts to:
 - infants, (less than one-year old) as soon as the child gets diarrhea, and
 - toddlers, (older than one-year) as soon as the child loses appetite or becomes listless.
 - * To seek outside assistance if the child does not improve after administering the above regimen.
 - * A cluster of behaviors associated with breast-feeding, infant food preparation, and personal hygiene.
- Teach secondary audiences to support the primary audience through:
 - * Physicians and nurses using oral therapy in all fixed facilities.
 - * Fathers and midwives understanding and approving oral therapy.
 - * Rural schools teaching prevention measures.

- * Regional health promoters distributing ORT packets.

5. 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.

6. Execution

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

C. CONTINUED SEARCH FOR AFRICAN SITE

The search for an African site continued through close coordination with DS/ED. The Gambia was recontacted and a site visit made to determine if The Gambia was both willing to, and capable of, supporting the implementation of the MMSHP Project. The visit was conducted from June 9-19, 1980. The team included Drs. William A. Smith, Robert Black, and Barbara Searle. Conversation with the Ministry of Health proved positive, and the AID mission was supportive of the possible involvement of the project in The Gambia. A tentative project agreement was developed jointly with the Ministry of Health and left for the political levels of the Ministry to discuss. The Gambian trip report has been included in Appendix B.

D. BUDGET AND ANALYSIS

A project budgetary analysis was conducted. Resulting concerns center around the impact of unexpected costs related to increased local staff, the cost of the delay in project implementation, and the cumulative effect of inflation, particularly on travel, transportation, and equipment costs. These issues have been discussed with the technical monitors of the project. They have potentially serious implications for the Academy's ability to complete the project without additional funding and/or significant changes in the original scope of work.

E. ADDITIONAL ACTIVITIES FOR THE PERIOD

1. Institutional Review Board

The first Institutional Review Board meeting was held on June 10th, 1980 to discuss ethical concerns surrounding the developmental investigation protocol. The protocol was approved after several revisions by the Board.

Implementation of the investigation followed the approved guidelines. The full report presented to the Institutional Review Board is available from the Project Director in Washington. The completed approval sheets have been included here as Appendix C.

2. Honduras

Two trips were made by the project director to Honduras during this period. These trips involved analysis of the developmental investigation data and design of the implementation plan. During both visits, meetings were held with the evaluation contractor staff and personnel from the MOH, in addition to regular meetings with field staff and AID mission personnel. During the second visit, discussions were held with Mission personnel concerning additional technical assistance required for the Health Education Office of the Ministry of Health in the implementation of a large-scale water and sanitation project. The activities involved in this proposed addition to the existing MM&HP contract include:

- a. Design and execution with counterparts or a community health education component with emphasis on human behavior towards safe water and human waste disposal systems. The project design must demonstrate that a water supply and excreta disposal system will be beneficial in lowering disease rates only if the population understands the links between health sanitation and hygiene.
- b. Identify and promote methods which will focus on the strengthening of values and practices related to maintenance of excreta and safe water systems within the context of village water committees.
- c. Design the community-level delivery system for the health education component, based on the use of field promoters, local representatives, and educational media.
- d. Describe how to incorporate and use the following methods in influencing individual and community behavior:
 - Mass Media campaign using radio broadcasts and group discussions.
 - Health education for school age population.
 - Use of flip charts, slides, educational 16 mm film, and other educational or audiovisual aids.
- e. Design, pretest, and refine the educational materials (radio program, flip charts, etc.) to be used in the health education component. The pretesting results should lead to recommendations to be implemented during the execution phase. They will be directed towards changing social and cultural practices as they apply to sanitary and related health practices.
- f. Demonstrate the proper use of the above materials and equipment to the project trainers, and the field sanitary promoters who are responsible to carry out the promotional and educational aspects at the village level.

g. Provide, on a timely basis, the technical assistance, both long- and short-term, required to achieve the desired results of the health education component.

h. Prepare and train a Honduran counterpart to act as project director during the third and final year of the project.

A trip report for the May visit to Honduras has been included in Appendix A.

3. Project Advisory Board Meeting

In addition to the internal AID Review Board and the AED Institutional Review Board, the MM&HP project also has an Advisory Board composed of consultants in each of the relevant disciplines: communication research, social marketing, behavioral medicine, and diarrheal control. This Board met on September 8, 1980 to review program progress and to make suggestions for the preparation of the implementation plans for both evaluation and implementation contractors. Generally the consultants agreed that significant progress had been made toward an effective implementation plan. The Academy presented the preliminary results of the developmental investigation, and in conjunction with the consultants, developed a procedure for integrating and analyzing field data. This meeting was useful in setting priorities for the immediate future and in preparing a general format for the implementation plan.

4. Organization of Project Documents

A new system for organizing the rapidly growing number of project documents was developed. Each new document will bear a number and use a consistent format. The full list of documents now available is provided below:

- 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 #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

SECTION IV.

PROJECTED ACTIVITIES FOR OCTOBER 1, 1980 THROUGH MARCH 31, 1981

A. HONDURAS

The detailed implementation plan for Honduras will be submitted to AID for approval on December 5, 1980. A draft of that plan is available from the Academy and includes the following general activities:

1. Pretesting of radio and print materials for the prevention phase of the campaign.
2. Development of the training protocol to be used with physicians, auxiliary nurses, and guardianes.
3. Contracting radio production and broadcast facilities.
4. Final printing of poster and supplementary print materials.
5. Acquisition of ORT packets for Phase One.
6. Execution of Phase One.

B. AFRICAN SITE

If approval from The Gambian government is forthcoming this quarter, it is expected that final recruitment, contracting, and placement of field personnel will take place before March of 1981. Activities in The Gambia will include establishment of an office, initial planning with MOH counterparts, and preparation of the developmental investigation plan. Equipment and vehicle shipment will take place, and one consultant trip is planned for this period.

C. WATER AND SANITATION ADDITION TO THE HONDURAS SITE

If AID approves the "Water and Sanitation" addition to the MM&HP project, then the field director will be contracted and relocated in Honduras. Again preliminary meetings with MOH counterparts and initial planning of the intervention will be carried out. A modest developmental investigation is contemplated, but detailed scheduling of project activities will have to take place in Honduras with MOH counterparts.

D. INSTITUTIONAL REVIEW BOARD MEETING

A second meeting of the Institutional Review Board will be called to address the ethical research implications of the implementation plan for Honduras. This meeting will be scheduled for mid- to late-January, allowing board members to review and approve research activities of the implementation plan.

SECTION V.

ADMINISTRATIVE REPORT

Expenditures to September 30, 1980:

Salaries and Wages	\$151,467.53
Employee Benefits	24,138.20
Consultant Fees	15,440.00
Travel and Transportation	43,548.88
Overseas Allowance	9,062.21
Other Direct Costs	34,556.35
Equipment	10,333.29
Overhead	<u>63,687.15</u>
TOTAL	<u>\$352,233.16</u>

9

XD-11712 70574
1980-30782

APPENDIX A

TRIP REPORT: HONDURAS SITE
May 18 to 30, 1980

TRIP REPORT
MASS MEDIA AND HEALTH PRACTICES PROJECT: HONDURAS SITE
May 19 to 30, 1980

Objective

The principal objective of this trip to Honduras was to assist in the preparation of the Protocol for the first phase of the Developmental Investigation of diarrhea-related attitudes, knowledge, and practices.

Participants

AED

Dr. Reynaldo Pareja
Ms. Elizabeth Booth
Dr. William A. Smith

MOH

Dr. Suazo, Sub-Secretary of Health
Ms. Dona Vera de Baesteros, Administration
Dr. Guzman, Director General of Health
Dr. Zelaya, Health Education Chief
Lic. Luis Sarimiento, Health Education
Dr. Danilo Valesques, Maternal Child Health
Ms. Ruth Andino, Epidemiology Department

Stanford

Dr. Carl Kendall

USAID/Honduras

Dr. James Stone, Head of Human Resources Division
Dr. Tom Hyslop, Head of Health Office
Mr. Ray Baum
Mrs. Anita Siegel
Dr. George Moore

11

Principal Accomplishments

1. The design of the protocol for the first phase of the developmental investigation was completed and has been attached to this report. The development of the protocol relied heavily upon the Academy's first three-month experience in Honduras, upon previous research experience in Honduras conducted by USAID, and upon conversations and preliminary designs worked out in Washington by the project director and reviewed by Robert Hornik.

The protocol seeks to define the basic objectives, the critical research population, and the specific instruments to be pretested and used during the next three months in Honduras.

2. During conversations with the Honduras/USAID Mission, the author made contributions to their planning for health education components in the recently funded "Water and Sanitation" project, and the soon-to-be negotiated health loan. These two projects, along with the MN&HP project effort, demonstrate a significant new interest within the AID Mission and the Ministry of Health in health education. They offer an opportunity to transform the relatively low level of health education activity into a considerable new force within the Ministry. It is important to note that all three of these programs use mass communication in similar and complementary ways. The development of these three programs should ensure the development within the Ministry of Health of an effective communication strategy for health education.

Review of Field Site Activities

Since the project director's last visit to Honduras on February 10-20, 1980, the following activities have been undertaken:

1. A systematic review of three potential regions was undertaken and a report produced (see Semiannual Report No. 3). This review process resulted in the official selection of Health Region No. I as the principal target area for project activity.

2. A basic description of the health and communication infrastructure of the Region is now being completed. This report will provide basic background information needed to prepare detailed planning for future activity in the Region.

3. The AED team participated in the oral rehydration research project sponsored by PAHO and conducted by the Center for Vaccine Development of the University of Maryland. In addition to using the project as a focus of local publicity for oral therapy, they maintained close contact with the researchers and collected valuable insight into several critical areas. Among these are included:

- a. The importance of Tegucigalpa as a health center, as it attracts patients from even the most isolated areas.
- b. Mother's attitudes toward oral therapy, which may indicate it is considered second class medicine compared to IV therapy.
- c. The importance of purging as both a common practice and an important reason for potassium loss in dehydrated infants.
- d. The medical community's receptivity to oral therapy. One indicator of this success is that during the past month over 400 children have been rehydrated using oral means. For the first time in many months, an intern reported seeing empty beds in the rehydration ward.

4. The basic administrative infrastructure of the project has been established. The project vehicle has arrived, and office space (limited as it is) is available. Furniture has been loaned to the project. An excellent administrative assistant has been hired, and financial control and reporting procedures have been normalized. Office supplies have arrived, and the project is fully operational.

It should be said that working conditions are less than ideal. There are five desks and eleven people working in a space of 15' by 15'. It is very difficult to concentrate on any independent work. Interruptions are common, and sound level is moderately high. Consequently, Reynaldo and Bette are spending many hours in the evenings and on weekends doing work which just can't be done in that setting. They are working very hard to ensure that appropriate Ministry counterparts are involved in all stages of planning and are participating in field work and early research activities.

5. The team is providing ongoing and ad hoc assistance to the Director of the Health Education Unit, Dr. Zelaya, on budgeting and planning for Ministry campaigns. At present, the Ministry is running two promotional campaigns; one on dengue control and a second on malaria. Both have been produced by local commercial media types with little input from the Health Education Office. Indeed, the Ministry did not even have a copy of the text, or know how many different "jingles" have been made. It is hoped that our project will return control, both financial and substantive, of such efforts to the Health Education Unit. In addition to contributions to our project, the MOH is spending some \$15,000 on air time alone for these campaigns.

During a conversation with the MOH Director of Administration, she requested that we assist them in monitoring and evaluating the effectiveness of the present media effort. She was very pleased when we agreed to include pertinent questions in our early investigation stages. In fact, this will give us an interesting indicator of outreach and acceptance of these campaigns.

6. Three MOH counterparts have been recruited, interviewed, and selected. Two of them have demonstrated real capacity and interest in the project. After the first month's activity, however, number three, the individual with radio experience, was clearly inappropriate. At present the project team is looking for a replacement for this third individual.

A two-week long training course was run for the three counterparts. The first week included a structure orientation to the project, its goals, and operational plans. The second week included a field experience during which all five individuals, three from MCH and the two AED people, lived in rural areas and began an observational exercise. The purpose of this experience was threefold:

- a. To see how the counterparts worked under field conditions.
- b. To collect direct information on rural conditions.
- c. To test how outsiders would be received in rural communities.

As regards point (a); it was clear that one counterpart was not appropriate and was removed. The information that was collected is still being tabulated, but some early anecdotal indicators point to little existing use of fotonovelas, no special diets for infants, radio spots not being considered "serious" by rural people, a marked preference for "news" shows, and a prevalence of potential contamination sources in rural communities. As regards point (c);

it proved much easier than assumed to spend time with rural people. Note-taking proved possible, and sharing the contents of the notes only seems to produce amazed bewilderment among the rural families that anyone was interested in such mundane detail. There was little suspicion, and seemingly honest interest was expressed.

General Evaluation of Project Progress

Administratively, the field office is in exceptional shape. The support coming from the Ministry is much greater than expected. There seems to be a genuine interest in the Ministry in diarrhea control and continued excitement (if not always in-depth understanding) of how communications can go about helping the problem.

Technically, things are still on course. Identifying counterparts has been a very difficult task. People who are really qualified do not want to work for Ministry wages. With the design of the protocol for the investigation phase completed, the next three months will be very busy. The protocol as it now stands badly needs pretesting. This process will begin next week. It uses a wide variety of methods and has a somewhat cumbersome data collection design, but it will provide important insight into how to go about conducting this type of operational research. One of the Ministry's most frequent requests is for alternatives to formal survey research--which they find time consuming, expensive, and often irrelevant. We hope to develop at least one or two more practical alternatives for pre-program development.

Potential Problems

1. The entire health office of AID will be changing within the next three months. It is hoped that future relations will be as positive and supportive as they have been in the past.

2. Constitutional changes are expected at the end of July in Honduras. This may mean new faces and new priorities in the Ministry. At best it will mean time invested in bringing the new leaders up to date on the project, its importance, and its requirements.

3. Interviewers are going to be hard to identify. Considerable training will have to be provided for these individuals, and this may take more time than was originally planned.

300 MIL NIÑOS CUBRIRAN CONTRA DIARREA

El Programa de Comunicación Masiva Aplicado contra las Diarreas Infantiles, cubrirá a una población mínima de 300 mil habitantes, que cuente, además, con hábiles vías de comunicación y un grado medio de desarrollo infraestructural.

En este proyecto, financiado por la Agencia para el Desarrollo Internacional, a Honduras le corresponde aportar 20 mil lempiras para gastos adicionales que el mismo conlleva.

La investigación incluye, entre otros aspectos, conocer las causas que los habitantes del sector experimental atribuyen para que se produzcan este tipo de enfermedades entre los niños.

Asimismo, y con la ayuda del Patronato Nacional de la Infancia, ente encargado de la producción de medicinas, se hará un ensayo de rehidratación oral en las áreas rurales, donde más azotan las diarreas.

13

22-EL HERALDO. Lunes 17 de Marzo

POBLACION MINIMA DE 300 MIL HABITANTES SERA CUBIERTA POR UN VALIOSO PROGRAMA

El Programa de Comunicación Masiva Aplicado contra las Diarreas Infantiles, cubrirá a una población mínima de 300 mil habitantes, que cuente, además, con hábiles vías de comunicación y un grado medio de desarrollo infraestructural.

En este proyecto, financiado por la Agencia para el Desarrollo Internacional, a Honduras le corresponde aportar 20 mil lempiras para gastos adicionales que el mismo conlleva.

La investigación incluye, entre otros aspectos, conocer las causas que los habitantes del sector experimental atribuyen para que se produzca este tipo de enfermedades entre los niños.

Asimismo, y con la ayuda del Patronato Nacional de la Infancia, ente encargado de la producción de medicinas, se hará un ensayo de rehidratación oral en las áreas rurales, donde más azotan las diarreas.

Best Available Document

Sábado 1 de marzo de 1980

la tribuna

Para combatir mortalidad infantil:

PROGRAMA ANTIDIARREICO IMPLANTA SALUD PUBLICA

Un energético programa para combatir la diarrea infantil en todo el territorio nacional, está llevando a cabo el Ministerio de Salud Pública, con el fin de prevenir la morbi-mortalidad de los infantes atacados por ese mal.

La mayor cantidad de niños pequeños que mueren anualmente en Honduras se debe a enfermedades diarreicas, acentuadas por deficiente atención médica en algunos casos o a falta de compra de medicamentos, por parte de los padres.

Por tal razón, Salud Pública implementó un programa masivo para el presente año, con el que se pretende atender un promedio de 165 mil niños en todo el país, a través del suministro de suero oral de fácil uso, que puede ser aplicado por la propia madre.

Para tal fin, se adquirió maquinaria especial para la elaboración de sobres de suero electrolítico que tienen un valor en plazo de 20 centavos, bastando tres dosis para controlar el mal.

El empleo de este novedoso sistema de tratamiento vendrá a bajar sustancialmente la alta tasa de morbi-mortalidad infantil en las principales zonas del país, trabajándose actualmente a través de cinco centros pilotos, por medio de enfermeras y guardianes de

salud, con excelentes resultados, observándose que los efectos de la enfermedad han bajado.

Además, en el Hospital Escuela en el Departamento de Pediatría se está utilizando el método para enseñanza de los pediatras residentes, estudiantes de medicina, enfermeras y auxiliares de esta última carrera.

Los sobres de suero oral están siendo elaborados por la División de Productos Farmacéuticos del Patronato Nacional de la Infancia, con lo que se logra retener una gran cantidad de divisas.

EL HERALDO. Viernes 7 de Marzo — 21

FUNCIONARIOS DE LA UNIVERSIDAD DE STANFORD EN RECORRIDO POR EL PAIS

Hoy viajaron a los departamentos de Choluteca y Valle, tres funcionarios de la Academia para el Desarrollo, de Washington y de la Universidad de Stanford, con el propósito de conocer aquellas regiones y seleccionar, posteriormente, una zona para llevar a cabo un programa de comunicación masiva aplicado a diarreas infantiles.

Esta actividad forma parte de un convenio establecido entre el Ministerio de Salud Pública y la Agencia para el Desarrollo Internacional, con una duración de

tres años, durante los cuales se analizarán las causas fundamentales de la diarrea y los tratamientos más efectivos para su curación o prevención.

La zona experimental de este programa será establecida en el transcurso de la próxima semana, considerándose como prioritarias, hasta la fecha, las regiones sanitarias primera, segunda y cuarta, que comprenden los departamentos de Francisco Morazán y El Paraíso; Intibucá y La Paz, Choluteca y Valle y Comayagua, respectivamente.

LA PRENSA 8 DE MARZO DE 1980

FUNCIONARIOS DE LA UNIVERSIDAD DE STANFORD EN RECORRIDO POR EL PAIS

Viajaron a los departamentos de Choluteca y Valle, tres funcionarios de la Academia para el Desarrollo, de Washington y de la Universidad de Stanford, con el propósito de conocer aquellas regiones y seleccionar, posteriormente, una zona para llevar a cabo un programa de comunicación masiva aplicado a diarreas infantiles.

Esta actividad forma parte de un convenio establecido entre el Ministerio de Salud Pública y la Agencia para el Desarrollo Internacional, con una duración de tres años, durante los cuales se analizarán las causas fundamentales de la diarrea y los tratamientos más efectivos para su curación o prevención.

La zona experimental de este programa será establecida en el transcurso de la próxima semana, considerándose como prioritarias, hasta la fecha, las regiones sanitarias primera, segunda y cuarta, que comprenden los departamentos de Francisco Morazán y El Paraíso; Intibucá y La Paz, Choluteca y Valle y Comayagua, respectivamente.

Con la ayuda que presta la AID se pretende crear un módulo de trabajo que podría aplicarse después a otras regiones del país, con el objeto de contrarrestar esta enfermedad que es la responsable de un alto índice de mortalidad infantil.

La Tribuna

Martes 18 de marzo de 1980

En Hospital Escuela:

DEMOSTRARAN COMO REHIDRATAR NIÑOS

Hoy dos médicos de la Organización Mundial de la Salud

harán una demostración de la nueva metodología de rehidratación oral que se aplica para el control y restablecimiento de los niños que llegan a los centros de salud con severos casos de deshidratación, a causa de las diarreas.

La interesante exhibición tendrá lugar en la Sala de Emergencia del Hospital Escuela; y, a ella, asistirán el viceministro de Salud, doctor Octavio Suazo, el director general de Salud, doctor Luis Guzmán, y el director del Instituto Hondureño de Seguridad Social, doctor Humberto Rivera Medina.

Los dos funcionarios de la OMS

se han dedicado, durante las cuatro últimas semanas, a comprobar la eficacia de las fórmulas caseras utilizadas para combatir la diarrea en su etapa más crítica la deshidratación.

Para ello, han medido los niveles de sal, potasio, bicarbonato y de otros elementos utilizados. Su demostración pretende hacer ver la efectividad de un suero oral especial para dicha etapa que puede ser más práctico que los componentes similares que se administran por la vía intravenosa que, generalmente, se aplican en los casos extremos.

22

Martes 25 de marzo de 1980

La Tribuna

80 POR CIENTO DE NIÑOS SON ATENDIDOS POR PARTERAS

El 80 por ciento de los niños hondureños nacen atendidos por una partera empírica, en tanto que el resto recibe cuidados en centros hospitalarios del país, generalmente del Estado.

Este alto índice de nacimientos habidos en el campo, con el auxilio de parteras, ha sido factor determinante para que el Ministerio de Salud Pública busque establecer más vínculos con la tradicional comadrona a fin de capacitarla para que cumpla mejor la delicada tarea que le toca realizar.

Paralelo a tal adiestramiento, Salud Pública ha previsto, en su Plan Quinquenal, establecer condiciones adecuadas en los centros asistenciales para atender a la embarazada de alto riesgo.

Para ello, se han elaborado normas técnicas de atención por niveles para reducir los riesgos de un embarazo difícil y un parto peligroso, previniendo las enfermedades diarreicas, brindando educación nutricional y ampliando la cobertura de las vacunaciones.

23

XO 1377-996-B
150-20198

APPENDIX B

TRIP REPORT: THE GAMBIA
July 7 to 18, 1980

TRIP REPORT
MASS MEDIA AND HEALTH PRACTICES PROJECT: THE GAMBIA
JULY 7 to 18, 1980

Objective

To negotiate an agreement between AID and The Gambia which would permit implementation of the MM&HP Project in The Gambia.

Participants

AED

Dr. William A. Smith
Dr. Robert Black

Stanford

Dr. Barbara Searle

List of Persons Contacted

Representatives of The Gambia

Mr. S. N'Jai, Principal Secretary of the Ministry of Health
Mr. A. N'Jai, Principal Secretary of the Ministry of Economic Planning
Dr. Samba, Director of Medical Service
Dr. Oldfield, Assistant Director of Medical Service
Dr. Gowers, Medical Officer of Health
Sister M'boge, Coordinator of MCH
Dr. I. Schmiedeberg, Divisional Medical Officer
Dr. Harry Hull, Epidemiologist, Center for Disease Control
Mr. Steve Fitzgerald, Expanded Programs, Immunization Operations Officer
Dr. Angela Fuller, Pediatrician
Dr. Thomas H. Wojciechowski, Pediatrician
Dr. Karamo Sanyang, Pediatrician
Mr. Gomez, Health Planner in Ministry of Economic Planning
Mr. Conateh, Director of Information and Rural Broadcasting/Radio Gambia
Mr. Thomasi, Principal Broadcaster/Radio Gambia
Three health officers
One rural doctor
Representatives of the Materials Production Unit of the Ministry of Education
Director of Peace Corps, health specialists, and three volunteers
Mr. Bushra Jabre, UNESCO Consultant

USAID/The Gambia

Mr. Tom Moser, Mission Director
Mr. Tony Funicello, Program Officer

25

Medical Research Council

Dr. Ian McGregor, Director, MRC Laboratories
Dr. Brian Greenwood, Director-Elect, MRC Laboratories
Dr. Michael Watkinson, Pediatrician, MRC Keneba
Anne Watkinson, Nursing Sister, MRC
Dr. M. Rowland, Research Scientist, Keneba

WHO

Dr. Richard Morrow, Tropical Disease Research Program
Dr. Petrinsky, Epidemiologist

I. EXECUTIVE SUMMARY

A. PRINCIPAL ACCOMPLISHMENTS

1. Lengthy discussions with representatives of AID, Peace Corps, and The Gambian government. Word-by-word review of the agreement, modification of the same, and resolution of technical language contained within the agreement (see Appendix B,1).

2. Visits to two rural villages, MRC research facility at Keneba, a local hospital, and Radio Gambia.

3. The technical language of the agreement was successfully negotiated with the highest levels of The Gambian Ministry of Health. It was clear that The Gambia very much wanted this project and had wanted it for the past 18 months since the first cable was sent.

Due to the relatively few resources that The Gambia is being asked to contribute to the program, no one--either at USAID or within the Ministry of Health--was concerned that political questions would be raised. Radio Gambia gave its full support to the program during a two-hour meeting.

4. An agreement was not signed for the following reasons:

a. Because national radio is involved, it is required that the program be reviewed at the cabinet level. This means a delay of at least a month and possibly more.

b. There are two outstanding details--the most important of which is a general agreement to be negotiated between the USAID Mission and The Gambia. Such an agreement does not now exist but is being prepared. Due to the increased size of the Mission, it is felt that such a general agreement is now essential, not only for this project but for others as well. The Gambia, unlike Honduras,

requires that the agreement include financial data on what is to be contributed and what they are asked to provide. This will be prepared jointly by the Mission and the Academy.

c. Several Gambians expressed the inappropriateness of their being asked to wait 18 months to receive a site visit and then being "rushed" into a formal agreement in ten days. They felt that a serious commitment on their part required more time.

5. A letter of intent was provided by Dr. Samba of the Ministry of Health, stating the Ministry's support for the project and requesting additional time to prepare for the final signing (see Appendix B,2).

B. POTENTIAL ADVANTAGES OF WORKING IN THE GAMBIA

1. The Gambian MOH has a strong commitment to oral therapy and is now advocating simple sugar and salt solution widely.

2. Infant mortality is very high in The Gambia. Some estimate that it is as high as 50 percent for children under five. The largest cause of mortality appears to be infant diarrhea.

3. The Gambian officials were very responsive to the program. They seemed to genuinely want the project for The Gambia.

4. The country is small, and this permits a national program to be implemented. This increases MOH commitment to the project and allows us to make a more significant impact.

5. The administrative structure of the MOH is not complex, consisting of perhaps three to five key people. This reduces the number of individuals that have to be involved in decision making.

6. Radio ownership seems very widespread in the country. Present programming is quite traditional, and it is possible that new radio programming styles might have a more significant impact in The Gambia than in areas

28

where programming is already quite sophisticated.

7. Radio Gambia is very interested in collaborating. They seemed particularly interested in pretesting and evaluation tools.

8. AID Mission support is high, and Mission personnel are respected among The Gambian MOH professionals.

9. Several international programs are planned which overlap with MM&HP project goals. These include a WHO-planned diarrheal control program, a UNESCO-planned communication program, and a CDC-sponsored epidemiology surveillance program.

10. The presence of MRC, one of the world's leading tropical medicine research centers, in the Gambia gives added technical support to the program.

11. The relative political stability of The Gambia.

C. POTENTIAL DIFFICULTIES WITH WORKING IN THE GAMBIA

1. The extreme level of poverty and malnourishment in rural communities may make even the simplest innovation difficult. Rural people have very little margin in which to make practical changes.

2. The present MCH program is highly dependent upon simple sugar and salt therapy which presents added instructional prerequisites.

3. The Gambia, like Tanzania, is concerned about the "narrow" nature of the program. They would like to see the prevention side of diarrheal control stressed because it has implications for other health programs.

4. Village structure is centered around multilingual and patrilineal family compounds. In many villages, Wolof, Mandinka, and Fula are spoken. Languages are not clearly separated by geographical region. This may present problems, both for broadcast and evaluation purposes.

5. Manpower is very short. MCH resources are now stretched tremendously

thin. It is unlikely that this program will be able to command special attention over the long haul.

6. Simple sugar and salt therapy has been advocated for several years in The Gambia. There is some evidence that the rural population is disappointed in its results. This may mean re-educating large numbers of rural people.

7. The expatriate support infrastructure is meager in The Gambia. Housing is expensive and scarce. Primary school positions are often unavailable. Furniture and appliances are very expensive locally, and shipping time from the U.S. is a minimum of nine months. This will add recruiting difficulties to the project.

8. Locally available computer and xeroxing facilities are very limited.

9. International communications are also very difficult.

10. The likelihood of identifying interviewers and field workers at the national university is limited.

11. While the presence of other international programs is an advantage, it is also a problem and may mean several programs are competing for scarce space and manpower resources.

12. Radio Gambia insists that all radio production must take place in their facility with their personnel. They are already overburdened with production tasks and adding significant new tasks to their schedules may be a major problem.

13. Unexpected additional costs include:

a. Renovation of office space. No firm estimates on this were available, but an average of \$8,000 to cover an area equivalent to three desks was discussed. Office furniture will also have to be purchased.

b. Stoves and refrigerators will have to be supplied to project personnel. Slightly more expensive vehicles will be necessary, perhaps adding another three to five thousand dollars to the budget.

II. THE HEALTH PROBLEM

The Gambia has an estimated 1980 population of 599,878 of which 102,110 are children under four-years-old. The country demographically characterized by high birth and childhood death rates. Infant and under-five mortality rates are very high as illustrated in Table 1 (see Appendix B,3). These figures are from the Medical Research Council's field study area of Keneba and are probably the most accurate figures available. There was a slightly downward trend in childhood mortality between 1951 and 1975; however, experts continue to cite a 50 percent mortality for children under five years of age. Because the MRC has operated a clinic in the area, as well as conducted various antimalarial and nutritional intervention studies over the past 30 years, these figures may be somewhat lower than those for the remainder of The Gambia. However, it is generally felt by the MRC that their interventions have had relatively little impact on the health of residents within the study area. Infant mortality in the Keneba area demonstrates a consistent seasonal variation with the highest mortality during the rainy season of August to October, as illustrated in Table 2 (see Appendix B,3).

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.

31

- "National Tetanus Survey," conducted by Pap John Williams and Harry F. Hull, M.D.s of the Gambia's North Bank Division, 1979.
- "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 percent of all deaths for children under five-years-old 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 percent of all deaths in 1979. Based on information extracted from the death register in Banjul in 1979, gastroenteritis accounted for 8.7 percent 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 3 percent 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. As indicated in Table 3, nearly 6 percent of the population visits a dispensary each year for diarrhea (see Appendix C,3). 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.

A. PRINCIPAL CAUSES OF INFANT DIARRHEA

Studies of diarrhea epidemiology have been done by the MRC in Keneba. These studies have indicated that the peak diarrhea incidence occurs in children less than two years of age; however, investigations into the etiology of this diarrhea have been sporadic and limited in scope. Enteropathogenic E. coli, Salmonella, and Shigella were isolated from the stools of 5.6 percent of children (six-months to three-years old) with diarrhea during August to October, the rainy season. Exterotoxigenic E. coli and Campylobacter were not sought in this study. Viruses were sought in the stools of 27 selected children; rotaviruses were not observed, but adenoviruses, coronaviruses, enteroviruses and other virus-like particles were found. Because of the study's limited scope and the fact that it was confined to one season, it is not possible to determine the role of the various enteropathogens in causing diarrhea in The Gambia.

The MRC has also studied possible routes of transmission of enteric agents. In The Gambia the peak season for diarrhea is during the hot, rainy, summer months. During this time, there appears to be an increase in fecal pollution of well water which may contribute to transmission of pathogens. In addition, they have documented extensive contamination of traditional weaning foods and have speculated that this may be the principal route of spread of diarrheal agents to young children. They also demonstrated the hazard of storing previously cooked food at the usually high, ambient temperatures in The Gambia, which favor bacterial growth.

B. CAUSES OF MALNUTRITION

After the age of three months, the weight of Gambian children falls below international growth standards, reaching approximately 75 percent of the standard by 12 to 18 months of age. Studies by the MRC in Keneba

3)

indicate that this growth faltering was significantly determined by gastroenteritis and malaria experienced by young children. They observed that in at least 10 months of the year, normal rates of growth could have been expected for children in the second and third year of life, if it were not for diarrhea.

Studies of the lactation performance of Gambian mothers indicate that after three months of age breast milk provides inadequate energy intake for infants to sustain normal growth. Recent attempts to supplement the diet of lactating women have failed to achieve a substantial increase in breast milk quantity or quality. These studies underscore the importance of providing foods to infants to supplement the nutrients obtained from breast milk after three to six months of age.

C. TREATMENT OF INFANT DIARRHEA

The Government of The Gambia and the medical profession recognize the critical importance of fluid replacement for diarrhea to treat dehydration. This is done primarily by oral sugar-electrolyte solutions and the 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.

1. Royal Victoria Hospital

The main hospital in the country, located in Banjul, treats children with diarrhea, primarily in the general in-patient pediatric ward. Children are admitted for correction of dehydration associated with diarrhea and generally stay two to three days. Children in shock or with complications are given intravenous therapy for 12 to 24 hours. The IV solution used depends principally on what solution is available at that time. The solution being used at the time of this writer's visit to the hospital was

14

one-fourth normal saline and dextrose.

For most children, therapy begins with oral rehydration solution. This solution is prepared on the pediatric ward by the nurses from UNICEF-supplied packets. The contents of six packets are added to 10 liters 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 percent of the expected concentration of salts and glucose). The solution is ordered by the pediatrician, roughly in proportion to the degree of dehydration and size of child, but the volume is usually one liter over the first 24 hours (for a one- to two-year-old child). The child's mother administers the solution with little nursing 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.

2. Dispensaries

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 therapy. On discharge, mothers are told to prepare sugar and salt solutions in their home. Kaolin is also distributed by dispensaries.

3/5

3. Primary Health Care Workers

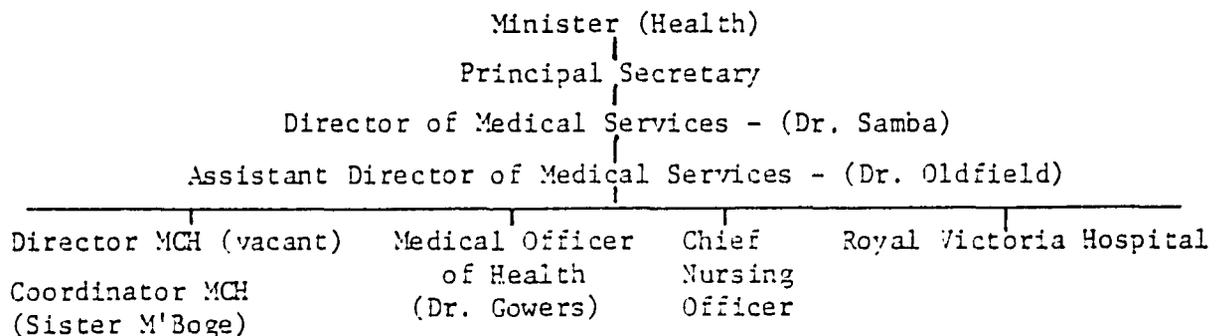
Although this program has not yet started, it is anticipated that these workers will advocate simple sugar and salt solutions for home treatment of diarrhea.

4. Peace Corps Volunteers

The Peace Corps has a large village health program in The Gambia. Peace Corps volunteers are doing primary health education, advocating practices expected to prevent illness. However, most of the volunteers are instructing mothers in the preparation and administration of simple sugar and salt solutions. David Werner, who recently conducted a training workshop for volunteers in The Gambia, had discussed "pinch and scoop" as well as "bottle cap spoon" methods of measuring sugar and salt. In spite of this, the volunteers seemed to have very limited appreciation for accurately mixing solutions or proper administration techniques. To try to correct some of these deficiencies, this writer prepared answers to a series of questions concerning preparation and administration of oral rehydration solutions. These questions and answers will be published in the Peace Corps' newsletter for West Africa (see Appendix B,5).

III. OVERALL HEALTH SYSTEM

The health system is under the direction of the Division of Health and has the following administrative positions:



The health care centers, with the exception of Royal Victoria Hospital, are the responsibility of the Medical Officer of Health (Dr. Gowers). The health care system consists of two hospitals (RVH and Bansang), 12 health centers, 16 dispensaries, and 58 sub-dispensaries. The hospitals are staffed by physicians (most of the 31 physicians in the country work at the two hospitals), nurses, and other health professionals including the only two pharmacists. The other centers are staffed by nurses and dresser-dispensers. Dispensaries (open usually five to six days per week) and sub-dispensaries (open only one day per week) are the most peripheral health posts.

A Maternal Child Health (MCH) program operates within the health care system with the specific objectives of "reduction of maternal, prenatal, infant, and childhood mortality and morbidity, the promotion of reproductive health, and the physical and psychological development of the family as a whole." The specific activities of the MCH are detailed in "Working Guidelines for Maternal and Child Health," by Bertha H. M'Boge and Dr. Anne Aukette (November, 1979), a copy of which is available at the Academy for Educational Development. The instructions in this manual concerning the treatment of diarrhea in children are also available.

A primary health care program (PHC) is being planned and is scheduled to begin in 1981 in the lower river division. After this, the PHC program will be introduced progressively to the North Bank, McCarthy Island, Upper River, and the western divisions. It is planned that each village will form a village health committee which will select and pay a village health worker (VHW). The VHW will work in her own village to deliver health care including oral rehydration and salt solutions. The VHW will receive technical supervision from

31

community health nurses, who are currently being trained. In addition, traditional birth attendants are working in each village, and they may be given training and responsibility as part of the PHC program.

There is a current effort to strengthen the epidemiologic surveillance activities under the direction of Dr. Harry Hull, a CDC epidemiologist assigned to the Ministry of Health. He has revised the outpatient register and reporting procedures to provide more accurate and complete information on health problems. The forms to be used for this surveillance are also available from the Academy. The new system is expected to be in place by January, 1981.

IV. TARGET AREA AND POPULATION

The Gambia covers approximately 4,000 square miles, with a population estimated at about 600,000. The dominant topographical feature of the country is The Gambia River, which divides the country some ten kilometers on each side of the river. The terrain is generally flat, with small hills characteristic of the upriver part of the country. The principal means of travel is by road. River travel, while available, is slow. Primary roads are in fair condition but limited, and secondary roads are poor. Because of the country's small size and the extensive penetration of the one national radio station, it was agreed to conduct a national, rather than a regional diarrhea control campaign.

A. VILLAGE CULTURE

There are five major ethnic groups and some 21 distinct languages. Three tribal languages, Mandinka, Wolof, and Fula, are predominant. English the colonial language, is not widely spoken outside of Banjul. The

170

country is divided into six divisions and 35 districts, each with an elected seyfo (district governor).

The majority of the population is grouped into villages. Villages are usually ethnically heterogenous with one language group dominating. They will have an alkali (headman) and a banta bas (small raised platform) where village men meet to discuss village problems. Villages are divided into kabilo (patrilineal kinship groups) and into family compounds. Compounds are physically identifiable subdivisions, composed of several houses surrounded by a palm or grass wall. The compound is headed by the oldest male. His brothers and their families usually live within the compound. One interesting fact about the compound structure is that they do not tend to be linguistically homogeneous. Even within a given compound, two or three languages may be spoken. It is reported that many rural people are bilingual and understand at least two to three principal tribal languages. Two subgroups, the sinkiro and dabada, are commonly found within the compound. The sinkiro is a cooking unit composed of females, and the dabada is a work unit, headed by influential males in the compound.

The country is predominantly Muslim, but some traces of traditional tribal religion continue to exist. The most relevant implications of this are seen in medical care and feeding habits. Juju, or amulets, are commonly worn to ward off disease, danger, and bad luck. At the same time, there are reports that modern medical practice has begun to penetrate and effect patients' expectations for medical care. Injections are said to be preferred over pills and powders. Some other common practices which have implications for diarrheal control were reported. These include the following:

- Abrupt separation of child from mother at weaning time. Children are sent to their grandmothers and often refuse food for several days

after separation. Grandmothers are often less careful about weaning foods' cleanliness. This separation occurs usually between 20 to 24 months of age.

- Hot peppers which are commonly added to local dishes are also given to children. Many children, when first exposed to these foods, refuse to eat and only gradually develop a tolerance for the pepper. Special foods are not prepared for the child, although in some areas a gruel of millet or rice is made.
- A green stool is associated with diarrhea by villages. There does not seem to be any scientific basis for the association.
- Diarrhea is called mandinka (stomach is falling out).
- Sugar is imported and can be found in both cubes and granulated form. It is expensive and highly prized in the home.

In searching for some standard container available in rural villages, tomato paste cans were discovered. These cans come in at least four sizes, ranging from small 6 oz. containers to large 16 oz. ones. Even though they are imported from Portugal or Italy, they seem to be available in village stores. Each village seems to have at least one small store, often run by Mauritians. Common items include soap, aspirin, sugar, salt, batteries, tomato paste, staple grains like rice, millet, sorgum, and bottled soft drinks. Salt is crudely granulated and tends to cake in the humid environment. This will make accurate pinch measuring difficult.

B. MASS COMMUNICATION IN THE VILLAGE

Radios were reported to be very widespread in the rural areas. During our visits to villages, we did see several radio receivers, two of which were large and quite expensive. Batteries appear to be widely available and somewhat expensive. No formal study of listenership or radio ownership was uncovered. Most information is presently based upon random anecdotal information. Peace Corps volunteers report that women do have

access to radios, but in such a male dominated culture more information on radio use is needed.

Villages receive both Gambian and Senegalese radio broadcasts. While many Senegalese programs are in French, and few Gambians speak French, there was evidence that Senegalese music programs are popular, and Senegalese programs broadcast in local languages common to both countries are also popular. Again, this is a topic for detailed investigation.

Outside of radio, few other means of mass communication were visible. A few commercial posters were seen in village stores. There was no evidence of any popular reading materials or widespread poster campaigns. This may be due in large part to the rudimentary printing facilities in Banjul.

V. COUNTERPART INSTITUTIONS

The Division of Health of the Ministry of Health, Labor, and Social Welfare will be the principal counterpart institution for the program. Involvement will include the Ministry of Economic Planning and Radio Gambia at the Ministry of Information. Background information on the Division of Health was given in a previous section. The specific group within the Division of Health responsible for this program will be the newly formed Health Education Unit. This unit, to be composed of three individuals, is an attempt on the part of the division to upgrade health education in the country.

Existing programs of health education include both orientation to health workers and a weekly radio program. The radio program is 30 minutes long and divided into two segments, one in Mandinka and one in Wolof. The format is a lecture on a wide variety of information. There is some anecdotal information, and the program's principal character, Dr. Samba, is recognized by rural people as a radio personality.



Infant diarrhea seems to be one of the priorities of the health education program. Division personnel also expressed their concern for preventive health measures over curative ones. This seems consistent with a general recognition of the limited health care facilities available and the need to reduce disease rather than treat it. In a discussion with Gambian health leaders, it was explained that both prevention and treatment information would be stressed.

It is not presently clear what specific role the Ministry of Planning will play in the project. The team met with Mr. N'Jai, principal secretary for the Ministry, as well as the health coordinator, Mr. Gomez. Mr. Gomez had just returned from several years study at the University of Maine and seemed quite interested in the project.

VI. MEDIA SYSTEM

A. RADIO

There is one national radio station in The Gambia controlled by the national government. It is the principal broadcast capability in the country. There is one commercial station, which the team did not visit and which appears to have much less influence. This, however, should be explored in future visits.

The government station broadcasts on one channel. A second channel is scheduled to open in October of 1980. Broadcasts are scheduled on Monday to Friday from 6:30 a.m. to 10:30 a.m.; 12 noon to 2:00 p.m.; and 5:00 p.m. to 12 midnight. On Saturdays, broadcasts are from 6:30 a.m. to 12 midnight, and on Sunday from 8:00 a.m. to 12 midnight. Programming includes a variety of formats, including entertainment, school oriented programs, general instructional programming, religious programming, and news. News programs are the only programs that are broadcast live. Reel-to-reel tapes are the principal recording



format. Program length includes 15-, 20-, 30-, and 45-minute styles.

The school-related broadcasts include two new programs each week, broadcast twice each, so that a total of four school programs are broadcast each week. Other instructional programs are handled through the Educational Broadcasting Unit, which works in collaboration with specific Ministries.

Programs are broadcast in Mandinka, Wolof, and Fula, as well as in English. Some of the most popular themes have been self-reliance, current affairs, and agricultural information. Two interesting program formats which seem to have become popular are "the letterbox," which broadcasts letters sent in by listeners, and "I remember," an information program sharing traditional wisdom over the radio.

At present, no system exists for evaluating program impact or establishing listenership patterns. Producers at Radio Gambia expressed particular interest in developing evaluation procedures to improve programming.

B. PRINT

Commercial print facilities are limited to small format off-set. Supplies of paper and other printing materials are commonly very scarce. There are government printing facilities in the Ministries of Education, Agriculture, Information, and Health. The Ministry of Education seems to have one of the best equipped and operated systems. In a discussion with their representatives, it became clear that large demands on their services would have to be scheduled well in advance. Both photography and graphic work are limited and skilled talent in these areas is scarce and overburdened.

VII. THE MARKETING SYSTEM

A. AVAILABILITY AND ATTITUDES TOWARD ORAL REHYDRATION

Ministry of Health officials and others concerned with the health system consider oral rehydration the treatment of choice for dehydration resulting from diarrhea in infants. As present, the policy is to supply a limited number of UNICEF packets, which contain glucose-electrolyte solution (GES), to clinics and dispensaries to be used there and to encourage the preparation of sugar and salt solution (SSS) for administration outside the clinics. Packets are not sold, there is no local facility for producing them, nor is any contemplated.

Peace Corps volunteers, of whom there are about 30 working in health and nutrition, have been given rudimentary instruction in the preparation of SSS and are expected to teach mothers in villages how to prepare and administer it. We visited two volunteers in villages outside (but close to) Banjul and talked at length with a third. These volunteers had a limited understanding of the mechanism of action of OR and were poorly equipped to deal intelligently with the exigencies of preparing OR fluid in the field: they did not understand that both salt and sugar were necessary; and most importantly, they did not have a systematic method for ensuring appropriate preparation.

B. MARKETING SYSTEM FOR MEDICINES AND INGREDIENTS

In the one village we visited, we found both cube and granulated sugar and salt at the local store. We were told that both sugar and salt are usually available in villages, but we had no way of checking this.

Dispensaries (which are open full-time) and clinics (which are staffed only one day a week) are the major sources of medicine in the rural areas.

We saw aspirin in the local store we visited, and presumably some other medicines can be purchased either in stores or from local healers. We were told that people who visit a clinic expect to be given either an injection or medicine for home use, even though they do not always use the medicine they are given. At present, Kaolin seems to be the medicine of choice for diarrhea in infants.

C. MARKETING SYSTEM FOR FOODSTUFFS.

Gambian rural society is organized around compounds which usually have from five to thirty people. Each compound produces its own food so that the entire rural population can be considered subsistence farmers. The marketing system in the rural areas is poorly developed, except for stores which are, for the most part, run by Mauritians. Stores do not stock fresh produce; they carry sugar, salt, cans of tomato paste, ovaltine, batteries, matches, etc. The "markets" in upriver towns typically have only spices and dried fish.

The year is divided into a growing season--July through October or November, coinciding with the rains--and a trading season from December to March. The early part of the growing season is known as the "hungry season" because stocks of food from the previous year have been depleted. During this time, the population as a whole, and babies in particular, often show a loss of weight. Cropping patterns are not fixed; the choice of which crops to grow and in what quantities is made by each compound. These patterns are described in "African Farmers' Labor Use in the Development of Smallholder Agriculture," by J.H. Cleave, 1974.

VIII. LOCAL SUPPORT

A. GOVERNMENT

The Minister of Health has his offices in the Central Bank



of The Gambia, a five-story office building that houses most of the high-level government officials. The remainder of the Ministry of Health occupies an old army barracks that is overcrowded, not because of the large number of employees, but because of the small size of the buildings. There is, in fact, a shortage of both people and space. The Ministry is organizing a Health Education Unit that will be headed by one of the health inspectors, presumably a man. Two women have also been identified as potential health educators. We did not learn who these people are. At least one of these people will be a full-time counterpart for the project.

The Ministry has no office space available for the project. We discussed two options--renting space (which the project would pay for) or remodeling one or two of the garages that form part of the Ministry complex. The second alternative would cost the project less over a two-year period than the first and would be of substantial benefit to the Ministry since they would inherit the offices when the project leaves. This alternative also has the advantage of placing the project physically close to the Ministry. The AID Mission has on its staff an architect who will provide a cost estimate for the contemplated remodeling.

The Ministry is committed to using its influence in support of the project, by providing access to decision makers, by releasing extension workers from their duties for training and orientation, by negotiating with other ministries where necessary (for example, with the Ministry of Information and Broadcasting), and by sponsoring training and other activities. They have access to some facilities that could be used for training workshops, although they themselves sometimes use local hotels in the off-season. (The tourist season is from December to March.) Dr. Gowers estimated that a six-day workshop for 30 people in Banjul would cost about \$2,500.

4/0

Good secretaries are not easy to find. Since business is conducted in English, all secretaries will require some English. However, English capability does not seem to have penetrated very deeply. (For example, many cab drivers in Banjul do not speak enough English to follow directions.) Tony Funicello, program officer, estimates that a good secretary will cost about \$6,000 per year.

There are no computer facilities in The Gambia. It seems unlikely that we can have keypunching done locally, but it might be possible to have it done in Dakar (although that would probably be too difficult to supervise).

B. MISSION SUPPORT

The Mission staff, Tom Moser, the AID representative, and Tony Funicello, program officer, are enthusiastic about the project and fully cooperated with us during our visit. Everyone is committed to concluding the arrangements that will bring the project to The Gambia.

The U.S. government does not yet have a bilateral aid agreement with the Government of The Gambia. There was some feeling on the part of the Mission that they would like to negotiate such an agreement before signing off on the present project. Furthermore, because the present personnel have never had a contractor working with them before, they do not have a Mission policy about the level of support they are prepared to provide. They plan to use this project as the occasion to develop such a policy. We suggested they should consider the following services:

- Assisting with the importation of project goods.
- Assisting with the importation of personal goods.
- Providing privileges.
- Providing embassy medical care.

- Assisting with local government transactions (for example, registering cars, obtaining insurance, drivers licenses, visas).
- Assisting in the provision of housing for contractors.

For direct hires and PASAs, the Mission provides a furnished house with two refrigerators, two stoves, two freezers, an air conditioner, and an auxiliary electric generator. (Last year the electricity was off for four months, but new generating facilities are being installed. We were told that the present shortage is the result of inadequate maintenance of the existing generators; but, it is expected the new generators will provide adequate electricity until they break down.) In addition, the Mission provides a 24-hour guard for each house. The Mission is presently building houses for five, soon to arrive, agriculture experts. Their decision to build these houses was made at a time when housing was in extremely short supply. At the moment, there are about a dozen houses available. Tom Moser, the AID representative, volunteered to find housing for our staff members and to help in negotiating acceptable leases.

There is one school considered to be of adequate quality by the expatriate community. Although some experience difficulties in getting their children admitted, the Embassy is guaranteed two places at each grade level, very few of which are presently being used.

Obtaining vehicles is difficult and expensive. The project will require a waiver so that it can purchase non-U.S. vehicles, for several reasons: first, there are no repair facilities for American cars; secondly, delivery would take nine to twelve months; and finally, since the Ministry of Health will inherit the vehicles when the project leaves, they are concerned that the vehicles are compatible with their own fleet, which consists of Toyotas. We asked many people about the advisability of purchasing four-wheel drive

9

vehicles. The consensus seems to be that there are a few occasions when it would be useful to have a four-wheel drive vehicle, but on the whole, a sturdy vehicle, with good clearance, would probably provide for our needs better. The Toyota Land Cruiser was recommended. They can be purchased in Banjul for about \$16,000.

There is a Bank of America affiliate, BICI, in Banjul, through which we we could handle financial transactions.

C. GENERAL SUPPORT CLIMATE

The Gambia government seems stable. (So did Nicaragua in 1973.) Their attitude seems favorable toward foreign aid, in general, and Americans, in particular. The people were described to us repeatedly as friendly and easy to work with. Living and working conditions are difficult to cope with. The electricity frequently does not work, the telephone system is almost useless, the level of technical sophistication is quite low, and resources are scarce; however, food is available, there is a sizable expatriate community (mostly British), and Dakar is not far away (for what it has to offer as an African country). The Gambia is quite accessible to the U.S., and the beaches are lovely.

IX. INTERNATIONAL PROGRAMS WITH RELATED OBJECTIVES

We heard that there were many health and nutrition projects in the country, but it was difficult to get specific information on more than a few. The Catholic Relief Service has organized day-care centers and is supplying them with food (including skim milk, which can be used in baby bottles, a practice that is strongly opposed by the MCH). We met a UNESCO consultant, Bushra Jabre, who had come to The Gambia to investigate the feasibility of reinstating a project to use communication strategies to disseminate health and nutrition information, which had been proposed earlier but never implemented. She was quite concerned with overlap between the UNESCO project and ours. She said

119

that the UNESCO project was supposed to develop a capability within the Ministry of Information and Broadcast to service all sectors, but to date the major stumbling block has been the unwillingness of the Ministry of Health to relinquish control over its own programs. The program will use flipcharts and other low-cost print materials to train field workers in health and provide them with improved community educational materials. Videotape will be used to train senior health workers and for community promotion.

In 1974 to 1977, UNESCO funded a hardware experimentation project which provided mobile vans equipped to show films. The service was apparently popular, but the number of films which were available was limited. It is estimated that the number of people who saw some of them is twice the population of the country.

There have been preliminary discussions between persons in the Ministry of Health and the WHO concerning a National Diarrheal Disease Control Program. Persons in the Ministry are interested in considering the possibility of a national program with a program coordinator and have invited WHO consultants to come to Banjul to discuss such a program. Two consultants are expected to arrive in Banjul within the month.

APPENDIX B, 1

MASS MEDIA AND HEALTH PRACTICES PROJECT AGREEMENT

I. INTRODUCTION

No general agreement now exists between AID and The Gambia. The Mission Director, Tom Moser, will negotiate such an agreement soon.

II. PROJECT DESCRIPTION

This project will contribute to the overall health objectives of The Gambia by:

1. Promoting the adoption of practices among rural people which will alleviate the most serious consequences of infant diarrhea and which will influence infant nutrition. This implies a strong emphasis on prevention and treatment of infant diarrhea and includes advocacy of some oral sugar-electrolyte solution.

2. Strengthening the health education system through the in-service training of health educators in the design, execution, and evaluation of mass communication systems.

3. Producing a series of radio programs especially directed at rural people concerning the treatment and prevention of infant diarrhea. These programs will be supported by graphic materials and specific training for health professionals, health workers, and community volunteers.

The purpose of this agreement is to assist The Gambian government develop a system and methodology for the application of mass media (especially radio and print media) and face-to-face intervention to obtain the widespread adoption of practices conducive to the treatment and prevention of infant and early childhood diarrhea among rural populations in less developed countries. An important aspect of this program is the adoption and integration of long-term systematic communication planning and design procedures into the health education system of The Gambia. To ensure that the project's results are clearly understood and analyzed, a coordinated but separate effort at project evaluation will be conducted during the course of project activities.

94

III. PROJECT OBJECTIVES

The objectives of this project in The Gambia are as follows:

- Conduct a multi-media intervention aimed at the adoption of salutary health practices and the prevention of infant and early childhood diarrhea.
- Develop an educational system and methodology for the use of mass media by training health professionals in health education.
- Evaluate the process and impact of the mass media methodology.

IV. PROJECT EXECUTION

The executing agents for this research and development project funded by AID will be the Academy for Educational Development, as the Implementation Contractor, and Stanford University, as the Evaluation Contractor. The Academy for Educational Development will hereinafter be referred to as the Academy and Stanford University as Stanford. The Ministry of Health, Labor, and Social Welfare, hereinafter referred to as the Ministry, in cooperating in this project will provide staff and/or other support as detailed in this agreement to the executing agents for carrying out the objectives of this project.

The Academy, Stanford, and the Ministry will carry out the objectives of the project according to the activities shown below. Although the work will be a joint effort, the Academy will bear principal responsibility for the successful development of radio programs, print materials, and face-to-face intervention systems. Stanford will bear principal responsibility for data collection and analysis (including field data), and reporting. The Ministry will provide overall direction and orientation of the project to ensure that it is consistent with the national health policy.

The Academy and Stanford will each provide one International Director for the project whose office will be in the United States and whose responsibility



will be the overall management of the implementation and evaluation of the project, respectively. Each of the agencies will also provide one Project Coordinator in The Gambia. The Academy and Stanford directors have the authority and responsibility for the final selection and/or termination of their personnel.

The Ministry will provide, in cooperating with this project, one full-time counterpart staff to the Implementation Contractor and one part-time counterpart to the Evaluation Contractor for the duration of the project. These will be strengthened by the addition of other Ministry personnel as required.

The Ministry, the Academy, and Stanford reserve the right to report inadequacies to the respective authority and to request that corrective measures be taken which will promote the overall success of the project.

The Ministry of Health will designate the Medical and Health Department as the executing agent. The Director of Medical Services will provide general project coordination and specific technical support for the health related project decisions, the training of health personnel, the formulation of radio programs, and the evaluation.

The Ministry will request air-time required to meet the broadcast schedule, determined by the Academy and the Ministry jointly. It is understood that this schedule will be based upon results of the community research phase and will be designed to reach the target population at those times of day which will ensure maximum reception.

V. PROJECT ACTIVITIES

A. The following activities will be conducted by the Academy and Ministry counterparts:

1. Design and execute a field investigation which will focus on

69

community knowledge, beliefs, and actions related to infant diarrhea and identify contributory factors, such as community media habits and preferences, and health worker system and training. This investigation will include structured questionnaires, individual and group interviews, and personal observations at both national and community levels. It will be used to determine basic target population characteristics, environmental situations, radio message and graphic material content, broadcast times, health system involvement in the campaign, and problem magnitude. This investigation is expected to last for nine months prior to commencement of the program.

2. Determine health advice to be advocated by the campaign along with a specific plan for acquiring, distributing, and monitoring the resources (prepackaged electrolyte solution, home-mix ingredients, clinic contact, health worker visits, etc.) needed to make that advice practical.

3. Produce pilot materials (sample radio programs, draft graphic materials, and preliminary training designs) for pilot testing with representative members of the target population.

4. Pilot test draft campaign materials with representative members of the target population, using both individual and small group situations.

5. Revise draft materials based upon results of pretesting and produce campaign materials.

6. Develop a broadcast and distribution schedule for all campaign elements.

7. Prepare health personnel, including orientation of health workers, distribute materials to decentralized distribution points, schedule radio broadcasts, and develop a plan to monitor campaign implementation.

8. Implement campaign activities, including transmission of radio programs, distribution and placement of graphic materials, contact between

health workers and target population, and monitoring of all campaign elements, which will include educational, environmental change, and treatment aspects.

9. The project will sponsor semiannual review meetings of project activities, which will include participants of The Gambian government, AID, and the contractors. Project coordinators will be responsible for calling and documenting the meeting.

Following the completion of campaign activities, the Academy will develop and publish a training manual detailing the processes used to develop and execute the mass communication campaign. The Ministry will collaborate with this effort through active participation in the manual's development. The Ministry reserves the rights to use this document without prior authorization from AID.

3. The following activities will be conducted by Stanford and Ministry counterparts:

1. Prepare and test data collection instruments for measuring the process and impact of project activities.

2. Prepare a sampling plan to ensure representativeness of collected data.

3. Recruit, train, and employ local interviewers, data collectors, data coders, and transcribers.

4. Carry out data collection before, during, and after the implementation phase of the project, using such methodologies as:

a. Knowledge, attitude, and practice surveys;

b. In-depth interviews of audience members, local leaders, and government personnel;

c. Anthropometric measurements of children; and

d. Usual and/or ad hoc health services and hospital record keeping.

5/10

5. Analyze and report on project results and findings, including process and impact assessment, methodology development, and cost-effectiveness.

6. Participate in project information dissemination activities, both during and after project completion.

VI. RESPONSIBILITIES OF THE PARTIES

A. AID hereby agrees to carry out its responsibilities in support of this project by providing the following through two separate contracts with the Academy and with Stanford:

1. Two senior staff members in the United States who will serve as International Project Directors.

2. Two full-time advisors in The Gambia; one will have responsibilities for evaluation, and one will have responsibilities for implementation. These advisors will be in-country for 24 months.

3. Two medical consultants and other communication, evaluation, and education consultants will be available to The Gambia for short-term consultancies.

4. On-the-job training in The Gambia for a minimum of three counterpart personnel, including on-the-job training of additional personnel at the request of the Ministry.

5. Provide funds to support short-term seminars for health personnel in the region of the project.

6. Provide all costs of radio and graphic materials development, reproduction, and distribution, except those provided by the Ministry.

7. Provide all materials and supplies as needed for development of project components and project administration.

8. Subcontract with local institutions for specific production services and material needs, as necessary.

9. Provide all necessary office machines, beyond those provided by the Ministry.

10. Provide radio receivers and tape recorders, as needed, to conduct the developmental investigation and the formative evaluation aspects of the project, exclusively.

11. Provide two vehicles under the inclusive control of the project, including insurance, fuel/oil, and maintenance during the life of the agreement; one vehicle will be managed by the Academy, and the other will be managed by Stanford. Ownership of these vehicles and all project equipment and materials revert to the Government of The Gambia upon termination of the project.

12. Pay for telephone and postage costs.

13. Employ local personnel, as needed, for administration and technical development of the project.

14. Cooperate with the Ministry of Health by providing technical assistance for the design of a long-term national production system for oral electrolyte solutions.

15. Make available to the Ministry all data collected in The Gambia, as requested.

B. The Ministry hereby agrees to carry out its responsibilities in support of this project by providing the following:

1. Establishment of this project as a national priority of the Ministry of Health.

2. Public support and endorsement of the project and the health objectives being advocated.

3. One full-time and one part-time counterpart.

4. Assistance in locating office space, including utilities, furniture, and telephone lines.

5. Access to health clinics and health personnel, including sponsorship, exclusive of financing of meetings and seminars, with the national medical community.

6. Release time necessary for health personnel to participate in training programs.

7. Access to rural communities for the purposes of conducting the developmental investigation and the formative and summative evaluation procedures.

8. Assistance in using other government printing facilities as necessary and possible.

9. Arrangements for duty-free clearance, in accordance with the general agreement between the two governments, for all materials and goods for the project and for the Academy and Stanford personnel.

10. Permission to collect regular systematic data as deemed necessary to complete project responsibilities.

11. Information on new national activity in the project region which might influence diarrheal disease and/or related measures of health status or behavior during the life of the project.

12. Timely permission to use and publish materials and reports developed during the project outside The Gambia, after approval by the Director of Medical Services.

13. Assistance in acquiring air-time required to meet the broadcast schedule recommended after completion of the field investigation.

VII. CONCLUDING STATEMENT

IN WITNESS THEREOF, the parties hereto have caused this agreement to be executed by their duly-authorized representatives in Banjul, on this day.

49

APPENDIX B, 2

THE REPUBLIC  OF THE GAMBIA

GEN/113^E
Ref.

Medical & Health Department
Banjul.

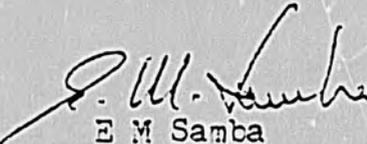
URGENT

15 July 1980

MASS MEDIA HEALTH PRACTICES PROJECT

We fully recognise the potential benefits of collaborating with the above-named project sponsored by AID/Washington. After a detailed review of the project we consider it consistent with our own principles of Primary Health Care.

We therefore suggest further official negotiation to produce a formal project agreement between The Gambia Government and USAID. We require adequate time to work out the details of this programme and suggest the USAID mission in the Gambia be empowered to negotiate the final agreement.


E M Samba
DIRECTOR OF MEDICAL SERVICES

Dr Tom Moser,
USAID Director
American Embassy
Banjul.

cc. Per. Sec., Min of Health

ems/

APPENDIX B, 3

Table 1
Mortality Rate Per 1000 Births in Keneba
1951-1975^{*}

<u>Years</u>	<u>Infants (<12 mo)</u>	<u>1-4 Year-Old Children</u>
1951-55	245	85
1956-60	231	101
1961-65	309	105
1966-70	298	124
1971-75	174	109

Provided by Dr. I. McGregor

Table 2

Seasonal Variation in Infant Mortality Rate per 1000 Births in Keneba

<u>Months</u>	<u>Infant Mortality Rate</u>
November-January	260
February-April	175
May-July	179
August-October	378

Table 3
Incidence of Reported Visits for Diarrhea by Division
The Gambia, 1979

Division	Population	Reported Visits For Dysentery And Diarrhea	Reported Diarrhea Visits Per 1000 Population
Banjul	46,318	8,053	173
Kambo St. Mary	46,584	907	19
Western Div.	107,598	8,907	83
Lower River Div.	50,182	4,173	83
McCarthy Island	120,471	11,274	94
North Bank Div.	110,406	5,300	48
Upper River Div.	101,871	4,150	41
Total	599,878	54,962	58

APPENDIX B,4

6/1

LIST OF PUBLICATIONS FROM THE
MEDICAL RESEARCH COUNCIL, THE GAMBIA

- Barrell, R. A. E. and Rowland, M. G. M. Infant foods as a potential source of diarrhoeal illness in rural West Africa. Transactions of the Royal Society of Tropical Medicine and Hygiene. 73:1:85-89, 1979.
- Barrell, R. A. E. and Rowland, M. G. M. The relationship between rainfall and well water pollution in a West African (Gambian) village. J. Hyg., Camb. 83:143-150, 1979.
- Rowland, M. G. M., Barrell, R. A. E. and White head, R. G. The weanling's dilemma: Bacterial contamination in traditional Gambian weaning foods. Lancet, pp. 136-138, 1980.
- Rowland, M. G. M. and McCollum, J. P. K. Malnutrition and gastroenteritis in The Gambia. Transactions of the Royal Society of Tropical Medicine and Hygiene. 71:199-203, 1977.
- Rowland, M. G. M., Cole, T. J. and Whitehead, R. G. A quantitative study into the role of infection in determining nutritional status in Gambian village children. Br. J. Nutr. 37:441-450, 1977.
- Watkinson, M., Lloyd-Evans, N. and Watkinson, A. The use of oral glucose electrolyte solution prepared with untreated well water in acute non-specific childhood diarrhoea. Transactions of the Royal Society of Tropical Medicine and Hygiene (in press, see Appendix F).
- Whitehead, R. G. Some quantitative considerations of importance to the improvement of the nutritional status of rural children. Proc. R. Soc. Lond. 199:49-60, 1977.
- Whitehead, R. G., Hutton, M., Muller, E., Rowland, M. G. M., Prentice, A. M., and Paul, A. Factors influencing lactation performance in rural Gambian mothers. Lancet, pp. 178-181, 1978.

APPENDIX B.5

Answers to Commonly-Asked Questions about Infant Diarrhea
and Oral Rehydration Therapy

Dr. Robert E. Black
July 1980

1. Why do children die from diarrhea?

Diarrhea, particularly in children under five, often leads to excessive loss of water and salts from the body. This drying out or dehydration is what causes death. If dehydration can be prevented, episodes of diarrhea will almost always end within less than a week.

2. Will plain water rehydrate a child?

If a child is moderately or severely dehydrated, the answer is No. Studies show that during diarrhea the intestine cannot absorb either plain water or water and salt. However, when sugar is added the intestine becomes able to absorb both the water and the salt. Thus, a mixture of water, salt, and sugar is the simplest formula that can be called an oral rehydration therapy solution.

3. What should oral rehydration solution contain?

The best oral rehydration solution contains sodium chloride, potassium chloride, sodium bicarbonate, and sugar dissolved in water. Sodium and potassium are needed to replace the salts lost through increased stool. Bicarbonate corrects acid imbalance, and glucose is necessary for sodium and water to be absorbed. This optimal mixture is available in packets, such as those prepared by UNICEF.

A rehydration solution is prepared from a UNICEF packet by dissolving the contents in one liter of water. If packets are not available, a solution can be prepared with sucrose (common sugar) and sodium chloride (table salt). This solution, if prepared and administered correctly, should prevent or correct dehydration. It does not replace potassium (since it does not contain any). Feeding the child foods high in potassium, such as green coconut water, bananas, and other fruits, is strongly recommended whenever sugar and salt solutions are used. These foods should be given as soon as possible after rehydration is started.

4. How important is the amount of sugar and salt in the solution?

Very important. Solutions that contain too little sugar or salt may be ineffective, while solutions that are too concentrated may be dangerous. The quantities of sugar and salt and the volume of water used to prepare the solution

61

should be measured as accurately as possible. If the solution is prepared using the complete UNICEF packet, the sole concern is that a full liter of water is used. If the solution is prepared in the home with sugar and salt, these ingredients, as well as the volume of water, must be accurately measured.

Accurate measuring can be a problem in the field where standard measures are not available. A method appropriate to the location must be worked out in each case. We have found that using a measuring tool, such as the spoon made from bottle caps suggested by David Warner, provides more consistent results. The correct proportions are as follows:

Water: 1 liter
Sugar:-30 grams
Salt: 3.5 grams

Let me stress, once again, that accurate measurement is very important which can critically affect the usefulness of the solution.

5. What if you don't have sugar and salt?

An effective oral therapy solution contains at least salt, sugar, and water, in the correct proportions. Never give a child with diarrhea a solution containing only water and salt. Too much salt can be very dangerous.

If you simply cannot get both salt and sugar, then give the child milk (preferably from the breast), fruit juice, and/or plain water. Although these are not effective oral therapy solutions, they are better than nothing.

6. Does the water used to prepare oral rehydration solutions need to be boiled?

No. The water used to prepare the solution should be as clean and free of contamination as possible. It is desirable to use boiled water if it is available. However, sometimes boiling requires time or resources that people do not have. If water is boiled, never boil the sugar and salt, but add them after the boiled water has cooled down. Also, oral therapy solutions should not be kept more than 24 hours. They should be discarded and new solutions prepared. This is because bacteria can grow on the sugar in the solution.

7. When does a baby or child need oral therapy?

Replacement of water and salts lost with diarrhea should begin as soon as possible after diarrhea has started. However, if you do not see the child until it is severely dehydrated, oral therapy can still work if it is correctly administered. A child who is unconscious, is unable to drink, or has no discernable pulse will need intravenous therapy and should be taken to a treatment center immediately.

8. How much oral solution does a child need to take?

The amount of oral rehydration therapy solution administered should vary depending on the amount of stool being lost and the child's weight. A child one- to two-years-old with moderately, severe watery diarrhea may need to take

one liter (approximately five glasses) of solution in 24 hours to replace stool losses. Children with excessive stool losses may require more solution while children with mild diarrhea may need less. Although many mothers feel that their children cannot drink as much as one liter a day, our experience has been that a dehydrated child will accept, and should be given, this much.

9. What if the child vomits?

Some children will vomit as they are given oral therapy. This worries many mothers, and even some physicians believe that this means oral therapy will not work. Our experience shows that even if the child vomits, oral therapy will work. You must simply allow the child to rest a few minutes and begin giving small amounts of solution slowly. Giving too much too rapidly can cause vomiting; slower administration usually avoids this problem. This is something you may want to mention to mothers as you teach them to use oral therapy at home.

10. How effective is oral therapy?

More than 90 percent of all diarrhea episodes can be effectively treated with simple sugar/salt oral rehydration solutions. In some cases, dehydration will develop or progress, usually because of insufficient fluid intake and/or vomiting. In other cases, improperly prepared solution may result in poor effectiveness or complications. The children who do not become less dehydrated after treatment with sugar/salt solution should be referred to a health center for additional treatment. Many of these initial failures can still be effectively treated with the complete formula in packets under more supervised conditions. A few children will need treatment with intravenous fluids.

11. Does oral rehydration therapy cure diarrhea?

No. Oral therapy does not stop diarrhea or even reduce the number or volume of diarrheal stools. It does keep children from dying until their bodies' defense mechanisms can fight and eliminate the infection that is causing diarrhea.

12. What should infants and children eat during periods of diarrhea?

It is very important that children continue to eat during diarrhea. Breast-feeding should never be interrupted or reduced. If the child is being given formula or milk, this should be diluted to half-strength during the illness and returned to full strength as soon as the diarrhea stops. Other foods, particularly soft, easily digested foods, should also be given if tolerated by the child. For a week after the illness, the child should be given extra food to make up for food not eaten during the illness.

11

APPENDIX C

INSTITUTIONAL REVIEW BOARD
REVIEWER'S FORM

C-1
ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.

1414 TWENTY-SECOND STREET, N.W., WASHINGTON, D.C. 20037

TELEPHONE: (202) 862-1900

INSTITUTIONAL REVIEW BOARD

REVIEWER'S FORM

Study Number _____

Title of Study Mass Media and Health Practices Project

Name of Principal Investigator William A. Smith

Reviewed by ML Clements

Date ~~6/15/80~~ 7/22/80

6/15/80

The protocol and the abstract summary are consistent on issues relating to the protection of human subjects. Yes No If no, please comment.

The study presents: no risk ; minimal risk ; more than minimal risk ; high risk . Briefly comment.

Does this protocol involve any special or vulnerable subjects in the study population (e.g., minors, prisoners, mentally disabled, fetuses)? Yes No . If yes, is the protocol acceptable policy for this special group? Yes No . If no, briefly comment.

The protocol adequately addresses the risk/benefit balance. Yes No . If no, briefly comment.

The protocol includes an adequate disclosure and/or consent statement. Yes ? No . If no, briefly comment.

An informal disclosure but not signed consent form

The protocol includes an adequate process for assuring that consent is voluntary. Yes No . If no, briefly comment.

The protocol includes adequate procedures for safeguarding confidentiality. Yes ? No . If no, briefly comment.

This does not seem to be a problem in this study.

1/

ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.

1414 TWENTY-SECOND STREET, N.W., WASHINGTON, D.C. 20037

TELEPHONE: (202) 862-1900

I N S T I T U T I O N A L R E V I E W B O A R D
 R E V I E W E R ' S F O R M

Teams #9 and #10

Study Number

Title of Study Mass Media and Health Practices Project

Name of Principal Investigator William A. Smith

Reviewed by Ruth Faden Date 6/27/80

1. The protocol and the abstract summary are consistent on issues relating to the protection of human subjects. Yes No . If no, please comment.
2. The study presents: no risk ; minimal risk ; more than minimal risk ; high risk . Briefly comment.
3. Does this protocol involve any special or vulnerable subjects in the study population (e.g., minors, prisoners, mentally disabled, fetuses)? Yes No . If yes, is the protocol acceptable policy for this special group? Yes No . If no, briefly comment.
4. The protocol adequately addresses the risk/benefit balance. Yes No . If no, briefly comment.
5. The protocol includes an adequate disclosure and/or consent statement. Yes No . If no, briefly comment.
6. The protocol includes an adequate process for assuring that consent is voluntary. Yes No . If no, briefly comment.
7. The protocol includes adequate procedures for safeguarding confidentiality. Yes No . If no, briefly comment.

Other Comments:

Check
One

Recommendation:

- X 1. Approve protocol as submitted.
- 2. Approve protocol, research instruments to be submitted for Committee review prior to initiating direct contact with human subjects.
- 3. Defer action:
 - a. Conditional approval contingent on the following minor revisions (specify):

If the revisions are acceptable to the Committee reviewer, the status of the application will be changed to 1 or 2 above as appropriate.

- b. Require significant modification of the protocol before approval (specify): Modification must be reviewed and approved by the full committee before the status of the application can be changed to 1 or 2 above as appropriate.
 - c. Request investigator to discuss problems with Committee or with designated subcommittee.
- 4. Reject the protocol: Explain.

Ruth Fisher

Signature of Reviewer

7/2/57

Date

7/2/57

C-5
ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.

1414 TWENTY-SECOND STREET, N.W., WASHINGTON, D.C. 20037

TELEPHONE: (202) 862-1900

I N S T I T U T I O N A L R E V I E W B O A R D
 R E V I E W E R ' S F O R M

Study Number _____

Title of Study Mass Media and Health Practices

Name of Principal Investigator William A. Smith

Reviewed by Gayla A. Kraetsch Date July 7, 1980

The protocol and the abstract summary are consistent on issues relating to the protection of human subjects. Yes X No ____ . If no, please comment.

The study presents: no risk X; minimal risk ____; more than minimal risk ____; high risk ____ . Briefly comment.

At this developmental stage, there is no risk to involved human subjects.

Does this protocol involve any special or vulnerable subjects in the study population (e.g., minors, prisoners, mentally disabled, fetuses)? Yes ____ No X . If yes, is the protocol acceptable policy for this special group? Yes ____ No ____ . If no, briefly comment.

The protocol adequately addresses the risk/benefit balance. Yes X No ____ . If no, briefly comment.

The risk/benefit balance is described well in the overview on diarrhea entitled, "Principal Health Consideration for a Public Education Campaign on Prevention and Treatment of Infant Diarrhea."

The protocol includes an adequate disclosure and/or consent statement. Yes X No ____ . If no, briefly comment.

The protocol includes an adequate process for assuring that consent is voluntary. Yes X No ____ . If no, briefly comment.

The protocol includes adequate procedures for safeguarding confidentiality. Yes X No ____ . If no, briefly comment.

71

Other Comments:

Check
One

Recommendation:

 X

- 1. Approve protocol as submitted.
- 2. Approve protocol, research instruments to be submitted for Committee review prior to initiating direct contact with human subjects.
- 3. Defer action:
 - a. Conditional approval contingent on the following minor revisions (specify):

If the revisions are acceptable to the Committee reviewer, the status of the application will be changed to 1 or 2 above as appropriate.

- b. Require significant modification of the protocol before approval (specify): Modification must be reviewed and approved by the full committee before the status of the application can be changed to 1 or 2 above as appropriate.
 - c. Request investigator to discuss problems with Committee or with designated subcommittee.
- 4. Reject the protocol; Explain.

Gayla A. Kraetsch

Signature of Reviewer

July 7, 1980

Date

Gayla A. Kraetsch
Senior Program Officer

16

ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.

1414 TWENTY-SECOND STREET, N.W., WASHINGTON, D.C. 20037

TELEPHONE: (202) 862-1900

INSTITUTIONAL REVIEW BOARD

REVIEWER'S FORM

Study Number _____

Title of Study Mass Media + Health Practices

Name of Principal Investigator William A. Smith

Reviewed by Joe Merrick

Date Summer, 1989

1. The protocol and the abstract summary are consistent on issues relating to the protection of human subjects. Yes No _____. If no, please comment.

2. The study presents: no risk ; minimal risk ____; more than minimal risk ____; high risk _____. Briefly comment.

3. Does this protocol involve any special or vulnerable subjects in the study population (e.g., minors, prisoners, mentally disabled, fetuses)? Yes ____ No . If yes, is the protocol acceptable policy for this special group? Yes ____ No _____. If no, briefly comment.

4. The protocol adequately addresses the risk/benefit balance. Yes No _____. If no, briefly comment.

5. The protocol includes an adequate disclosure and/or consent statement. Yes No _____. If no, briefly comment.

6. The protocol includes an adequate process for assuring that consent is voluntary. Yes No _____. If no, briefly comment.

7. The protocol includes adequate procedures for safeguarding confidentiality. Yes No _____. If no, briefly comment.

If tapes are not shared outside research committee, as voices are recognizable and could identify participants.

71

Other Comments:

Check
One

Recommendation:

✓

- 1. Approve protocol as submitted.
- 2. Approve protocol, research instruments to be submitted for Committee review prior to initiating direct contact with human subjects.
- 3. Defer action:
 - a. Conditional approval contingent on the following minor revisions (specify):

If the revisions are acceptable to the Committee reviewer, the status of the application will be changed to 1 or 2 above as appropriate.

- b. Require significant modification of the protocol before approval (specify): Modification must be reviewed and approved by the full committee before the status of the application can be changed to 1 or 2 above as appropriate.
 - c. Request investigator to discuss problems with Committee or with designated subcommittee.
- 4. Reject the protocol: Explain.

J. J. Humeck

Signature of Reviewer

Summer, 1980

Date

M

C-9
ACADEMY FOR EDUCATIONAL DEVELOPMENT, INC.

1414 TWENTY-SECOND STREET, N.W., WASHINGTON, D.C. 20037

TELEPHONE: (202) 862-1900

INSTITUTIONAL REVIEW BOARD

REVIEWER'S FORM

Study Number _____

Title of Study Mass Media + Health Practices Project

Name of Principal Investigator William A Smith

Reviewed by Joel Teitelbaum Date July 10, 1980

1. The protocol and the abstract summary are consistent on issues relating to the protection of human subjects. Yes No . If no, please comment.
2. The study presents: no risk ; minimal risk ; more than minimal risk ; high risk . Briefly comment.
3. Does this protocol involve any special or vulnerable subjects in the study population (e.g., minors, prisoners, mentally disabled, fetuses)? Yes No . If yes, is the protocol acceptable policy for this special group? Yes No . If no, briefly comment.
4. The protocol adequately addresses the risk/benefit balance. Yes No . If no, briefly comment.
5. The protocol includes an adequate disclosure and/or consent statement. Yes No . If no, briefly comment.
6. The protocol includes an adequate process for assuring that consent is voluntary. Yes No . If no, briefly comment.
7. The protocol includes adequate procedures for safeguarding confidentiality. Yes No . If no, briefly comment.

Other Comments:

Check
One

Recommendation:

✓

- 1. Approve protocol as submitted.
- 2. Approve protocol, research instruments to be submitted for Committee review prior to initiating direct contact with human subjects.
- 3. Defer action:
 - a. Conditional approval contingent on the following minor revisions (specify):

If the revisions are acceptable to the Committee reviewer, the status of the application will be changed to 1 or 2 above as appropriate.

- b. Require significant modification of the protocol before approval (specify): Modification must be reviewed and approved by the full committee before the status of the application can be changed to 1 or 2 above as appropriate.
 - c. Request investigator to discuss problems with Committee or with designated subcommittee.
- 4. Reject the protocol: Explain.

Joel M. Teitelbaum
Signature of Reviewer

July 10, 1980
Date

22