

AN EVALUATION OF THE FACTORS OF  
SUSTAINABILITY IN THE GAMBIA MASS MEDIA AND  
HEALTH PRACTICES PROJECT

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## SUMMARY

This is a sustainability evaluation. It differs from Agency for International Development (A.I.D.) project evaluations (which examine the efficiency and effectiveness of project efforts) and impact evaluations (which examine the effects of a project on the welfare of beneficiaries). A sustainability evaluation examines a successful project to see if the benefits of project activities can be sustained for an extended period once A.I.D. funding ends. Assessing sustainability requires an examination of the financial and institutional factors that allow project activities to move to the point where they can be successfully managed by a developing country with minimal outside assistance. To sustain a project independently, a developing country must have the capacity and willingness to provide the human, material, and financial resources required to operate an effective project and to plan and manage that project with little or no outside assistance.

Although sustainability depends largely on a developing country's institutional and financial capacity, it also depends on the way a donor designs a project. This includes a project's economic, financial, technological, and operational structures; its organizational and management requirements; and the political and sociocultural context in which it must operate.

The Gambia Mass Media and Health Practices (MMHP) project was a research effort designed to develop and test mass communication techniques for improving health conditions. The project developed a comprehensive approach for using oral rehydration therapy in the treatment of acute childhood diarrhea. The project was successful in proving that mass media could be used cost-effectively to reduce morbidity and mortality.

A.I.D. provided \$387,287 to fund the MMHP project for 3 years in The Gambia. A separately funded project was responsible for evaluating MMHP implementation and health impacts. The MMHP project and the companion evaluation project each provided a resident technical assistance adviser, a vehicle, equipment, supplies, and in-country training and surveys.

Based on extensive field research in The Gambia, the MMHP project launched a highly successful program of health communications that included the use of radio and print materials and

the training of health workers. The project achieved remarkable results, effecting major changes in health behavior in a short time. At the end of the project, 70 percent of the mothers and all of the health workers knew the correct mixing proportions for the water-sugar-salt rehydration solution. Overall awareness of the solution climbed to 90 percent during the campaign. Compared with costs in other developing countries, the MMHP cost of health education, cost per diarrheal episode treated, and cost per death averted were all very low.

The MMHP project demonstrated that health behavior could be dramatically changed in the rural areas of a very poor country through a combination of radio, print, and face-to-face contacts. The MMHP project also improved the capabilities of Radio Gambia and the Government's Book Production and Material Resources Unit. The project, which was implemented by the Health Education Unit of the Department of Medical and Health Services, developed staff skills in field research, sample surveys, and the development and promotion of innovative health education techniques. The Health Education Unit became recognized within the Government as an important source of communication skills. The project methodology also was applied to other health programs.

Because of these accomplishments and the experience gained from the MMHP project in The Gambia and its companion project in Honduras, these projects served as a prototype for A.I.D. efforts in other countries. The lessons that were learned are being used in A.I.D.'s Communication for Child Survival (HEALTHCOM) project involving up to 17 other countries.

The purpose of this evaluation was to determine how much of this successful effort was sustained and what factors contributed to that result. The project resulted in significant learning and acceptance of its methodology. Host country staff continued to use some of the key components of the methodology. However, the evaluation team concluded that, despite the success of the project, it was not able to generate a sustained level of benefits. The Gambian Government was not able to maintain project activities at a satisfactory level after A.I.D. funding ended.

The major problem was the original project design--sustainability was not a high priority. The project was a research and development effort designed to test the use of mass media approaches. All efforts focused on the development, evaluation, and refinement of health intervention techniques. Although project planners recognized the need to institutionalize the program, continued and sustained postproject operations were not a leading priority. The priority was to successfully demonstrate mass communication techniques and to apply them to diarrheal disease control.

The prospects for project sustainability could have been increased had certain factors been considered during project design--or even later, when the project neared completion. Project planners appear to have assumed that if the experiment was successful, it would be continued. All attention was

concentrated on making it succeed. When the project was nearing completion, A.I.D./Washington and the USAID Mission differed on how best to sustain and institutionalize the program. They were unable to agree on how to structure a future program.

Another major problem affecting sustainability was the project time frame. Testing and introducing new health approaches is a long, difficult process. Even more time is required to develop a host government capacity to continue operating such an effort. Most A.I.D. projects require 5 or more years to develop and institutionalize new techniques. MMHP was a 2-year project that was extended for a third year. Three years was not enough time to firmly establish and institutionalize its activities. The time constraint placed pressure on the project to emphasize immediate outputs. Because time was short and the technical assistance advisers had to produce outputs quickly, all efforts were concentrated on proving that the approach would work.

Lack of a formal long-term training component also adversely affected project sustainability. The greater a project's dependence on advanced technical skills, the greater the need for longer term skills development. Although the project provided excellent in-country, on-the-job training, there was no long-term (or even short-term) project-funded participant training. The MMHP project did allow Gambian counterparts to assume a much more active role in project implementation during the final year, but it was not long enough. The problem was compounded by insufficient postproject technical assistance. The result was inadequate institutionalization of skills and in-country training capabilities. When the project ended there were not enough trained Gambians to run the program, and there was no phased plan for withdrawal of technical assistance. The abrupt termination left the project's activities without adequate financial or technical support.

A.I.D. incurred high costs in the MMHP research and development effort. Once the successful techniques were developed, it would have been relatively inexpensive to maintain project momentum. However, no provisions were made for a realistic assumption of budget responsibilities by the Gambian Government. When the program ended, a resource-rich research and development effort stopped abruptly, and the Government of The Gambia was able to fund only limited future efforts. A.I.D. should have considered systematic postproject funding and should have explored with the Gambian Government low-cost methods for Gambian maintenance of project efforts.

The evaluation raises an important question about A.I.D.'s responsibility in a pilot research and development effort. Although it is important for the Agency to experiment and test new methodologies, it is also important for A.I.D. to capitalize on successful research and development efforts. Development of a sustainable program is difficult and quite different from a research and development effort. When A.I.D. launches an experiment, it should include plans for sustaining and institution-

alizing the effort if it proves successful.

Although some of the benefits generated by the MMHP project are being sustained, the problems mentioned above were so constraining that ultimately the project was not sustained. The following are some of the more important lessons:

- The costs of developing a new approach are high. Therefore, plans should be in place to introduce a follow-on implementation phase should the new approach prove successful. Project planners should ask the question: "If this new approach is successful, how do we proceed?"
- There must be a plan for a phased withdrawal of donor assistance that enables the host government to assume financial responsibility for the recurrent costs and the technical management of the project. Such a plan, which should be agreed on well before a project ends, enables the host government to make appropriate budget allocations or institute cost-recovery actions while the project still has momentum.

#### FACTORS IMPORTANT TO THE SUSTAINABILITY OF THE GAMBIA MASS MEDIA AND HEALTH PRACTICES PROJECT

This evaluation identified a number of factors that were important in influencing the sustainability of the Mass Media and Health Practices (MMHP) project in The Gambia. These have been grouped under four categories: (1) economic and financial factors; (2) project design and implementation factors; (3) the organization and management structure of the project; and (4) the political and sociocultural context in which the project will operate.

The influence and importance of each factor on the sustainability of the Gambia MMHP project varied. While some critical factors were present, many others were not. As a result, the project was not sustained. The findings relating to the sustainability factors identified by the evaluation team are given below. Most have general applicability to other health projects and should offer useful guidance to those trying to design more sustainable health projects.

#### Economic and Financial Factors

1. The research and development phase of a project incurs high costs. Once a methodology is developed and found to be effective, it can be maintained at relatively low cost. Estimates indicate that a "bare-bones" annual budget of \$36,000 (in 1985 dollars) could have treated 30 to 50 percent of diarrhea cases, compared with a 56 percent coverage rate at a cost of

\$124,000 during the A.I.D. period. (pp. 9-10)

2. A project may be successful and cost-effective, and yet a country that is facing severe fiscal pressures may not be able to finance even a minimal program. The Gambia's deteriorating economic situation affected project sustainability. The financial crisis made domestic support of project activities difficult if not impossible. Considering the substantial A.I.D. investment, limited postproject support by A.I.D. would have been cost-effective. (pp. 10-12)

3. The sophistication and scope of project design determine a project's costs and benefits. For a very poor country, design efforts should focus on simple, low-cost projects. The design of the MMHP project matched Gambian capabilities. The project effectively used an existing health care system, along with simpler and inexpensive home-based treatment and low-cost mass media education methods. (pp. 12-15)

4. An unplanned or abrupt end to donor funding may be too great a shock for a developing institution. An adequate time horizon is needed not only to transfer project management responsibility to counterpart staff, but also to allow time for resource planning. The sudden end of MMHP project funding created a resource void in the Health Education Unit, which went from an intensive, resource-rich campaign effort to dependence on a limited host government budget. The government lacked adequate finances and trained staff to continue the effort. (pp. 14-18)

5. An understanding of recurrent or operational costs is required at the beginning of the project. A realistic plan for a phased financial takeover by the host government also needs to be agreed on early in the project. No provisions were made for gradual phase-over in the Gambia project. (pp. 15-18)

#### Project Design and Implementation Factors

1. When designing a project in a developing country with low per capita income and limited institutional capacities, both the technology and its dissemination must be simple, precise, and cheap. The technology and teaching methods of the MMHP project were sustainable. Water, sugar, and salt were available in most rural homes. Existing health workers spread the message using simple pictorial posters, supported by radio messages. (pp. 12-14)

2. Time is one of the most important constraints to institutionalization. A 2- or 3-year time period is too short. A.I.D.'s experience shows that at least 5 and often more years may be required to implement a project and permit the successful transfer of project management responsibility to counterpart staff. The 3-year time period of the Gambian MMHP project was too short to ensure institutionalization. The 2-year experiment worked, but even with the 1-year extension, the project's 3-year

time frame was far too short to develop the technical expertise needed for successful institutionalization. (pp. 14-17)

3. A mass media project must be able to continuously revise its messages until it is clear that the target audience fully understands the desired message. There is a difference between a "product launch" and the maintenance of demand. It is the ability to maintain demand that influences sustainability. After the initial launching of promotional messages on the use of oral rehydration solution, revisions were required to clarify user misconceptions. It appears that unfulfilled expectations may have led to abandonment of treatment in some cases. (pp. 17-18)

### Organization and Management Factors

1. A major requirement for sustainability is the institutionalization of skills. Maintaining a flow of benefits requires a longer time frame and an emphasis on training and skills development. Despite final-year efforts in the Gambia project, the short time frame and emphasis on immediate behavior changes resulted in weak institutional development. (pp. 18-19)

2. The more a project depends on advanced technical skills, the greater the commitment that must be made to long-term participant training. The Gambia project chose to rely on in-service training and on-the-job training. This evaluation concluded that some formal training and/or additional time was required to develop the complex and varied skills required to sustain the health education strategy of the project. (pp. 19-21)

3. Retraining is as important for sustainability as is initial training. The newer the concept, the more likely that reinforcement through retraining will be necessary. Training during the initial stage of the MMHP project was excellent. The erosion of project achievements can be traced to the lack of follow-up training. The concept of oral rehydration therapy and the skills required for its use were new. Therefore, reinforcement through retraining was critical to the continued success of the project. (p. 21)

4. While spread effects and spin-offs are encouraging signs of sustainability, care must be taken that the demand for newly learned technologies or services does not outpace host government capacity to deliver them. Demand for the MMHP project's mass media technology in The Gambia spread so quickly that the small Health Education Unit was unable to keep pace. (pp. 21-23)

5. Limited, but focused postproject maintenance support is necessary to preserve project achievements. Given demonstrated success, other donors and regional/central A.I.D. programs may want to help sustain postproject activities, as the Technology for Primary Health Care project (PRITECH), the United Nations Development Program (UNDP), and the world Bank did in The Gambia. (pp. 23-25)



6. Vertical programs are usually very difficult to integrate into horizontal delivery systems. The more existing cadres are used in projects and the simpler the technology, the easier will be the integration. The promotion of water-sugar-salt solution in The Gambia appears to have been integrated into the regular rural health care delivery system. (pp. 25-27)

7. A management information system helps project managers determine how well their project is performing and which methods work most effectively. Managers need a continuing flow of information so that program approaches and dissemination techniques can be reevaluated and redesigned as the project unfolds. Because the MMHP project was marketing a new health practice, managers needed to know how effectively the message was being received and what actions the "customers" were taking. During the period of A.I.D. funding, the feedback system worked well. After funding ended, these capabilities were seriously reduced. (pp. 28-29)

8. While volunteers can provide low-cost extension or program outreach, it is unlikely that a system based on volunteers will be viable in the long run. In The Gambia, when compensation (either financial or in-kind) or remotivation ended, volunteers tended to drop out. The "red-flag" mothers were effectively used during the campaign phase of the project, but some did not understand their temporary role. Those that did not enter the system as health workers (village health workers or traditional birth attendants) ceased to provide services. (pp. 30-31)

9. Parallel health service delivery systems can be effective, but they must be integrated at some point into an ongoing system if they are to be sustained. (pp. 30-31)

#### Political and Sociocultural Context

1. Projects that include social marketing require knowledge of village-level needs and attitudes. Such projects cannot be run from the capital city. They require the full support of the government and the recipients and should only be considered when objectives are shared. The MMHP project had the full support and cooperation of the Gambian Government, which permitted detailed village surveys that were necessary to determine use and acceptance of the rehydration therapy. (pp. 31-32)

2. Different players in a development project have different objectives. These objectives need to be understood and should be as mutually supportive as possible. For example, attainment of A.I.D. project objectives may not always be viewed as a success by the host government. Conflicting A.I.D./ Washington and field Mission agendas stifled successful maintenance of this effective project. (pp. 32-34)

3. Research and development projects may show success in small USAID Missions, but in the face of other program priorities, project extensions are not always ensured. The Gambia Mission is very small, with limited staff, and thus must limit its program initiatives. Given constricting USAID Mission portfolios, mechanisms are needed to allow highly successful projects to be maintained without placing an excessive management burden on smaller USAID Missions. (pp. 34-35)

#### COUNTRY DATA SHEET: THE GAMBIA

	Most Recent Estimate	Annual Rate of Growth (1979-1984)	
1. General			
Area (thousand sq. km)	11.3		
Population (thousands)	697.0	3.4	
2. Economic			
GNP (\$ millions)	158.0	1.9	
GNP Per Capita (\$)	290.0	-1.5 (est.)	
	1982	1983	1984 1985
Exports of goods and services (\$ millions)	100.3	105.6	107.0 81.9
Imports of goods and services (\$ millions)	142.3	131.7	135.9 112.8
Current account balance (\$ millions)	-44.3	-32.5	-34.3 -35.5
Groundnuts as % of exports	86.8 (1982-1985 average)		
Debt service ratio	19.6		
Central Government finance			
Current expenditure as % of GNP	23.0		
Development expenditures as % of GNP	17.0		
Rate of exchange	1981	1982	1983 1984 1985 Oct 1986
\$1.00 = Dalasis	1.97	2.29	2.64 3.58 4.09 7.34
3. Health			
	Most Recent Estimate		
Life expectancy at birth (years)	36		
Infant mortality rate	200/1,000		

Population per physician                    12,310  
 Population per nursing personnel        1,770

Source: International Development Association, "Report and Recommendation on a Proposed Credit and Special African Facility Credit to The Gambia for a Structural Adjustment Program," August 4, 1986.

### PROJECT DATA SHEET

1. Country: The Gambia
2. Project Title: Mass Media and Health Practices--The Gambia
3. Project Number: 931-1018

(The Gambia project was one component of an A.I.D. centrally funded project.)

4. Project Implementation: May 1981 through June 1984 (2 years plus a 1-year extension).

5. Mode of Implementation:

a. The Academy for Educational Development (AED), funded by A.I.D., was the implementing contractor responsible for execution and research.

b. Stanford University, also A.I.D. funded, was the evaluation contractor.

c. The Gambian Department of Medical and Health Services provided staff for technical support and training.

d. Radio Gambia provided air time.

6. Project Funding:

	1st 2 Years	1-Year Extension	3-Year Total
a. A.I.D.1	\$231,343	\$155,944	\$387,287
b. UNICEF2	2,820	1,632	4,452
c. Gambian Government2	36,416	18,425	54,841
Total	\$270,579	\$176,001	\$446,580

7. Project Purpose:

To introduce home-based oral rehydration therapy and other behaviors related to the treatment and prevention of infant diarrhea in rural areas and, simultaneously, to develop improved methods of using mass communication in conjunction with existing health services in an integrated campaign.

- 1Excludes funding of the evaluation component.  
2AED estimates of program funding from other sources.

## GLOSSARY

- A.I.D. - Agency for International Development
- CCCD - Combating Childhood Communicable Diseases Project
- Dalasis (D) - Gambian currency (US\$1.00 = D2.0 in 1981 and D3.58 in 1984)
- EPI - Expanded Program of Immunization, The Gambia
- Happy Baby  
Lottery - A contest whose goal was to stimulate mothers to learn the water-sugar-salt formula by offering prizes for correctly demonstrating mixing techniques
- HEALTHCOM - Communication for Child Survival project
- MMHP - Mass Media and Health Practices project
- PRITECH - Technology for Primary Health Care project
- red flag  
mother - volunteers trained in oral rehydration therapy techniques who served at the village level
- TBA - traditional birth attendant
- UNDP - United Nations Development Agency
- VHW - village health worker (volunteer)
- WHO - World Health Organization
- Map of The Gambia

## 1. INTRODUCTION

This field study of the Gambia Mass Media and Health Practices (MMHP) project is part of a broader Agency for International Development (A.I.D.) study of the sustainability of its health projects. A.I.D. is interested in identifying the conditions that allow projects to continue after donor funding ends. If the factors of sustainability can be identified, A.I.D. will be able to design assistance programs that have a greater chance of being sustained.

The factors of sustainability examined in this report were based on the findings of a forthcoming synthesis study that reviewed the evaluation documentation on 62 completed health projects (Liebersohn and Miller). The analysis in the synthesis study suggested that the presence or absence of certain issues was related to a project's prospects for sustainability. While a fairly extensive list of factors was developed, it was based on written reports of evaluations that were often done before projects were completed. To effectively assess sustainability, one should examine projects 2-5 years after A.I.D. funding ends. Since postproject evaluations were generally not available, field visits were required. Two projects were selected for field verification: the Gambia MMHP project, which was a vertically oriented, focused intervention emphasizing child survival, and the Lesotho Rural Health Development project, which was a horizontally organized, comprehensive intervention.

After the two projects were selected, the evaluation team reviewed all available project documentation in detail and developed a questionnaire protocol. Key informant interviews were conducted with project designers and implementers in Washington before and after the fieldwork.

The evaluation team visited The Gambia for 3 weeks. They interviewed USAID Mission personnel, Department of Medical and Health Service officials, counterpart project personnel, village health workers, and representatives of relevant international donor organizations. The data from these interviews were analyzed in the context of sustainability, that is, what happened after A.I.D. funding ended and why. This case study is not a formal evaluation of project activities based on an analysis of inputs and outputs, but an examination of the design, management, and contextual factors only as they pertain to sustainability.

A project is considered to be sustained if it continues to deliver a high level of benefits after the donor ends major financial, managerial, and technical support. If enough of the key elements are sustained, project benefits have a good chance of continuing over an extended period. This study includes an examination of all the factors that were important to the viability of the MMHP project in The Gambia. Each factor is discussed in the context of its influence on the current level of project-related benefits as observed by the evaluation team. The analysis of most of the factors led to more general lessons that have been learned from the experience.

## 2. PROJECT BACKGROUND

### 2.1 Project Rationale

The Mass Media and Health Practices (MMHP) project was a centrally funded A.I.D. research and development effort designed to demonstrate how mass communication techniques could be used to

change health-related behavior. The project was designed (in 1977) to use a little-known, low-cost technology--oral rehydration therapy--in two developing countries for the treatment of acute diarrhea.

If successful, the project would institutionalize mass communication methodologies within participating health institutions. The success of the project was to be demonstrated through a continuous process of empirical evaluation of all facets of project operations, to be conducted by a separate contractor under separate funding.

The ultimate goal of the project was to develop communication methods and media that could support the educational elements of projects in other sectors. The project purpose, as stated in the Project Paper, included the following elements:

- To develop and demonstrate more effective means for using mass media to support desired changes in health practices in rural areas of developing countries
- To develop a methodology for adopting a combination of mass media approaches to help rural people learn new health practices
- Specifically, to develop a methodology combining different mass media elements to teach ways of treating and preventing acute diarrhea among infants and small children

By the end of the project, the following results were to be achieved:

- A design and application of a methodology for the effective use of mass media in health education in developing countries, particularly as related to the management of acute diarrhea among infants and small children
- An integration of this methodology into the ongoing health education programs of two developing countries
- The distribution of publications and the conduct of seminars for relevant USAID and developing country personnel

Project outputs were to include the following:

- The conduct and evaluation of mass media health education interventions in two developing countries
- Significant changes in health practices as a result of these interventions

- Three to five host country personnel in each country trained in the methodology required for the effective use of mass media in health education
- Three major publications and four seminars presenting and discussing project findings

The central MMHP project was initially funded at \$3.11 million for 5 years (1978 to 1982). Since the initial design, the project has been amended several times, and in 1986 the name was changed to Communication for Child Survival (HEALTHCOM). The project has expanded to a global effort with a budget of \$13.7 million and has activities planned for as many as 17 developing countries.

## 2.2 The Gambian Setting

Project designers examined three African countries-- Tanzania, Cameroon, and The Gambia. The Gambia was chosen as the project's African site based on the Gambian Government's interest in the project, USAID/Gambia's receptivity to managing the project, and the site investigation team's belief that The Gambia could successfully carry out an effective multimedia approach to health education and bring about the desired changes in behavior.

At the time of the site investigation, The Gambia had one of the most developed health infrastructures in Africa. The Gambian Expanded Program of Immunization (EPI) was achieving coverage rates of 90 percent for measles and tuberculosis (BCG) vaccinations in 1980, a rate better than that of Great Britain. The Gambia was one of the first countries in Africa to endorse and implement the concept of primary health care adopted by World Health Organization (WHO) member states at Alma Ata in 1978. The MMHP focus on diarrheal disease control and oral rehydration therapy fit neatly within the Gambian Government's health policy priorities.

The Gambia is a small country; any town or settlement can be reached by vehicle within a day's drive. With a population of nearly 700,000 people and a national radio station that reached almost the entire population, The Gambia offered a prime opportunity for success on a national level.

## 2.3 The Gambian Component of the Project

The Gambian component of the MMHP project was designed as an 18-month experiment in the use of mass media to change health practices. Toward the end of the project, an effort was begun to institutionalize the mass media methodology within the Gambian Government. However, the first priority of the project was to

demonstrate success in changing health behavior.

As defined in the Letter of Agreement with the Gambian Department of Medical and Health Services, the project's objectives were as follows:

- To conduct a multimedia intervention aimed at the adoption of improved health practices that would prevent infant and early childhood diarrhea
- To develop an educational system and methodology for the use of mass media by training health professionals in health education
- To evaluate the process and impact of the mass media technology (A.I.D. December 1980)

The Gambian component of the MMHP project was budgeted for \$231,343. A 1-year extension in 1982 added another \$155,944, bringing the total project implementation cost to \$387,287.

The Academy for Educational Development was responsible for implementing the project. Stanford University was responsible for evaluating the process and impact of project activities. The budget for the Gambia MMHP project component did not include evaluation expenses, which were funded by a separate contract between A.I.D./Washington and Stanford University.

## 2.4 Project Inputs

The MMHP project provided two resident technical assistance advisers, one for project implementation and one for project evaluation (paid through the separate evaluation component funding).

Besides technical assistance and short-term consultants, the other major project inputs were gasoline, paper, contract staff salaries and per diems, and costs associated with field travel and training, including two U.S. vehicles.

Training was provided to headquarters, regional, and field staff at the Department of Medical and Health Services. Formal workshops supplemented this on-the-job training of project staff and other Government personnel in key areas such as radio broadcasting techniques and other aspects of mass media and communication technologies. Because this was a short, 2-year project, no long-term participant training was undertaken.

The project renovated a garage at the Department of Medical and Health Services into two offices and equipped them with furniture and standard office equipment. Some communication equipment was supplied to Radio Gambia for field recording and broadcasting. The Book Production and Materials Resource Unit of the Ministry of Education also received some equipment. In



addition, the project provided minor inputs to run a national lottery and mass media campaign (including assorted prizes such as plastic cups, soap, T-shirts, and rice as incentives to mothers and health workers).

## 2.5 Project Implementation

Project implementation began in the fall of 1981. A Gambian project coordinator was assigned to the project, and the project hired additional local contract staff.

Organizationally, the project was implemented through the Health Education Unit of the Department of Medical and Health Services, which was formed at the onset of project activities. Its staff included two recent graduates of a health education certificate course held in Nigeria. Throughout the project, the relationship between the Unit and the MMHP project was strained because one of the key staff advisers disagreed with the project methodology.

The initial project activities focused on developing the mass media campaign. MMHP staff spent the first 6 months of the project doing field research on health practices and media habits. Radio Gambia personnel and staff at the Book Production Unit of the Ministry of Education assisted the Health Education Unit in carrying out the field activities necessary to develop and implement the mass media campaign.

This research led to the design of a communication strategy that focused on the use of radio and graphics materials and the training of health workers to instruct mothers on the preparation and use of a water-sugar-salt solution<sup>1</sup> for the treatment of infant diarrhea. The campaign also promoted improved feeding and sanitation practices during and after diarrheal episodes.

The mass media campaign included a "Happy Baby Lottery" that was part of an intensive education campaign on oral re- hydration therapy and the use of the water-sugar-salt solution. Project staff and members of the Health Education Unit had leading roles in the "Happy Baby Lottery" mass media campaign. The campaign, which lasted 1 year, included the development of graphics materials and radio messages and personal instruction to support the educational process. The lottery used inexpensive prizes to encourage mothers to participate in activities designed to teach people how to prepare and use the oral rehydration solution. Over 700 village volunteers were recruited and trained to demonstrate proper mixing and use of the solution to mothers in villages throughout The Gambia.

Empirical data presented by the Stanford evaluation team demonstrated that, after a year of implementation, the project had produced striking changes in health behavior:

At the end of a year, 84 percent of mothers in The

Gambia had heard of home mixed treatment for diarrhea. The percentage of mothers who knew the correct mixing procedure rose from zero at the beginning of the pro-

1In The Gambia, the water-sugar-salt solution was chosen over the packaged oral rehydration salts because the solution could be prepared in the home with common household products and was thus a simpler, more efficient product within the Gambian context.

ject campaign to over 70 percent within nine months. Behavior changes followed a similar pattern. Of diarrhea cases treated at home, use of water-sugar-salt solution increased from 21.7 to 94.1 percent. A total of 47 percent of rural mothers reported having treated their child's diarrhea with the solution (Smith and Rasmuson 1982).

The success of the campaign led to a 1-year project extension in order to launch another mini-campaign focused on other aspects of diarrhea control, such as sanitation and feeding practices. This campaign was designed on a smaller scale, to be run by Gambian staff and to provide more thorough and directed training in mass media methodology.

When the Gambia MMHP project neared completion in early 1984, A.I.D./Washington expressed interest in continuing project activities. Although the expatriate project staff in The Gambia had left much of the mini-campaign work under the project extension to their Gambian counterparts, they believed that time was needed to fully integrate mass media and communication technologies within the Gambian Government.

A.I.D./Washington and MMHP staff believed that the objectives of the oral rehydration therapy component of the project had been met and that The Gambia could be one of the first countries in the worldwide project to attain A.I.D.'s objective of extending the use of mass communication techniques to other areas of health education. The Gambian Government endorsed this objective, and A.I.D./Washington developed and presented to USAID/Gambia a proposal for an extension of MMHP activities, with an emphasis on nutrition.

At the time of that proposal, USAID/Gambia was under considerable pressure from the Africa Bureau to concentrate its project portfolio on Bureau priority sectors such as agriculture and economic reform (see Section 3.4.3). The Mission believed that the extension of MMHP did not sufficiently focus on oral rehydration therapy and interpreted the proposed emphasis as movement into a new area that was counter to its development strategy. The Mission also argued that given its staffing reductions, the broadened activities would have been a management burden. The Mission and A.I.D./Washington differed on whether the project should be extended and on what elements should be included in a new project. These differences were not resolved, and the project ended in the spring of 1984.

### 3. FACTORS OF SUSTAINABILITY

#### 3.1 Economic and Financial Factors

##### 3.1.1 Project Cost/Benefits

Project Cost-Effectiveness.<sup>2</sup> The primary measure of health project effectiveness is the reduction in disease and death and the cost of achieving that reduction. The MMHP project was relatively effective and low in cost because of the following design features:

- Use of an existing primary health care system that had broad, countrywide coverage
- Home treatment/preparation of the oral rehydration solution, with users bearing the cost of the treatment
- The use of low-cost mass media (posters, radio, contests) to reach low-literate mothers

The total program cost for 3 years was approximately \$450,000, including contributions by A.I.D., other donors (mainly UNICEF), and The Gambia. (U.S. contractor expenses for the diffusion of information about project activities/ methodology to the international health and donor community, which were not directly related to the project in The Gambia, are not included.)

The Stanford University evaluation findings (Shepard and Brenzel 1985) indicate that at the peak of project efforts, an estimated 73 percent of diarrheal episodes in children under 5 years of age were treated at home with the water-sugar-salt solution, with the average coverage rate during the project being about 56 percent. Based on estimated fatality rates from diarrhea without the use of oral rehydration solutions and estimates of oral rehydration therapy efficacy, annual deaths averted were estimated at 6.94 per 1,000 children. That is the benefits side. The cost per episode treated was \$0.75, the cost per child per year was \$1.56, and the cost per death averted was \$224. Such a cost-effectiveness rate places the Gambia project among the least costly of the oral rehydration therapy programs in the world.

<sup>2</sup>This section draws heavily on the findings of an A.I.D.- funded study by Stanford University on The Gambia and Honduras projects (Shepard and Brenzel 1985).

Lesson Learned: The sophistication and scope of the project design affects the balance between a project's

costs and benefits. A more ambitious design will allow more extensive coverage, but may be beyond the capacities of a very poor country. Under such circumstances, a simple, low-cost project that provides adequate coverage is preferable.

The design of the MMHP project matched Gambian capabilities, making it a very cost-effective project. The project effectively used an existing health care system, a home-based treatment, and low-cost mass media education methods.

**Postproject Cost-Effectiveness.** The preceding analysis covers the 3 years of project operations. This section examines postproject cost-effectiveness.

A number of the costs of the project were specific to startup and implementation (such as U.S. technical experts and the costs for research, development, and testing of the media messages and strategies). Much of the 3-year project effort included development and fine-tuning of the oral rehydration solution technology and dissemination techniques. By the time the project was completed, program operations were well defined and focused.

The average annual cost of the 3-year project in 1985 dollars was \$204,000. However, if the one-time costs of the testing and technical development efforts managed by the U.S. technical assistance advisers (i.e., all U.S. personnel costs such as technical assistance, U.S. contractor home office support costs) are excluded, the annual average cost becomes \$124,000. This means that the cost per diarrhea episode treated was only \$0.46 and the cost per death averted was only \$137.

These costs are already very low, but the evaluation team believes that postproject costs could be even lower. The evaluation team examined the budget for the last year of the project and identified the minimum core expenses that would have to be maintained if the project were to continue functioning effectively. Although the average annual program cost (excluding research and development activities) cited above was \$124,000, the team estimates the "bare-bones" cost of effective operations to be about \$36,000 to \$72,000 per year (in 1985 dollars). Of course, under this pared-down program, coverage would be less extensive than it was under A.I.D. funding of the MMHP project.

An analysis of the costs and benefits must take into account the project's effectiveness in terms of coverage: the broader the coverage, the lower the cost per treatment. The average coverage during the MMHP project was about 56 percent of diarrhea episodes in children under 5 years old. Estimates of current coverage range from 30 to 50 percent. Cost/benefit estimates based on the bare-bones budget and these lower coverage rates are as follows:

Annual Cost (dollars)	Cost per	
	Coverage Rate (percentage)	Death Averted (dollars)
72,000	40	111
72,000	30	148
36,000	40	55
36,000	30	74

Lessons Learned: Experimental projects incur the highest cost during the research and development phase. Once a methodology is developed and proven effective, it can be maintained at a lower cost.

Cost-effectiveness is determined by both program costs and the extent of coverage. A simple, low-cost maintenance program that continues to provide adequate coverage can be cost-effective.

Estimates indicate that an annual bare-bones budget of \$36,000 (in 1985 dollars) could have covered at least 30 percent of diarrhea episodes compared with \$124,000 a year during the period of A.I.D. funding to cover 56 percent of diarrhea cases.

### 3.1.2 The Ability of The Gambia To Finance the Project

**Project Costs.** As pointed out in Section 3.1.1 on cost-effectiveness, the MMHP project had an average annual cost of \$124,000, excluding testing and technical development efforts. The evaluation team concluded that the program probably could be run effectively on a bare-bones basis for \$36,000 to \$72,000 a year. Although these costs may seem low to an outsider, they are not so to the Government of The Gambia. The program is probably receiving only \$5,000 to \$10,000 a year now, which is nowhere near the required level.

When project costs are put in perspective with the Government's recurrent health budget, the burden of even the minimal estimated postproject costs becomes evident. (The Government also has a development budget, but that is almost completely donor funded, and donors tie their funds to their own projects.) In FY 1985, the Gambian Health Education Unit (which implements the oral rehydration therapy promotion program) had a total recurrent budget of only \$10,000 (at the 1985 rate of \$1.00 = 3.5 dalasis), which was used to cover the cost of the oral

rehydration therapy promotion program and other health education efforts (e.g., nutrition, family planning, polio, hygiene). To put the Government of Gambia's health budget in further perspective, the following are other selected FY 1985 recurrent budget items:

Medical and Health Directorate	\$42,000
Maternal and Child Health/EPI Unit	\$46,000
Community Health	\$218,000
Health Dispensaries	\$172,000

**Macroeconomic Context.** The Gambia is a poor country with limited resources. It has always had resource shortages, but before the 1980s it had usually been able to cope. The worldwide recession of the early 1980s, however, was something different. The effect on the Gambian economy was devastating. The country faced severe resource shortages and reduced Government revenues. From 1975 to 1985 real per capita income in The Gambia declined by 16 percent. During this period, Government revenues increased modestly while expenditures increased dramatically. The overall budget deficit increased from 11.1 million dalasis in FY 1975 to 42.7 million in FY 1979 and 109.9 million in FY 1985. This fiscal situation was not sustainable.

Groundnut production, which accounts for 85-90 percent of exports, had been declining during the 1980s because of drought, adverse terms of trade, and the Government's failure to set adequate producer prices and to efficiently supply seeds and fertilizer. As a result, Government revenues from groundnut export taxes declined. The balance of payments situation steadily deteriorated. Foreign debt increased rapidly. There was a growing escalation of debt service obligations: from 5 percent of budget outlays in FY 1981 to 28 percent in FY 1984. Despite attempts at macroeconomic adjustment in 1984, including a 25-percent devaluation, a foreign exchange crisis severely disrupted supplies of fuel and other essential imports. As part of the International Monetary Fund (IMF)-supported stabilization effort, the Government's expenditures had to be drastically cut. Thus the Government was unable to mobilize the \$72,000 (or even \$36,000) required to maintain a bare-bones oral rehydration therapy promotion effort.

**Lesson Learned:** A project may be successful and cost-effective, but a country with minimal resources may not be able to self-finance even a minimal program. A project requires a stable economic environment; economic crises create special problems for health programs that have high recurrent cost requirements, which can preclude sustainability.

The Gambia's deteriorating macroeconomic situation was an important factor affecting project sustainability. Without donor funding, the MMHP project was not financially sustainable. When the project ended in 1984, The Gambia was facing a worsening financial crisis that forced the Government to focus on emer-

gency stabilization rather than on long-term development. The failure of the economy to achieve its growth potential and a deepening financial crisis made it very difficult for the Government to assume new financial burdens such as the MMHP project. Considering the substantial A.I.D. input to arrive at the high acceptance rates in the project, minimal postproject support might have been cost-effective.

### 3.2 Project Design and Implementation Factors

#### 3.2.1 Appropriateness of Technology

With a 1983 per capita income of \$290, The Gambia is near the bottom of the world's low-income countries. Institutional capability is limited because of a lack of Government resources and trained manpower. The ability of the Government to provide developmental services (such as training facilities, logistical support, vehicle maintenance, and supplies) is very limited. The choice of project technology and the method of extending that technology both reflected the level of development in The Gambia.

Project designers decided against the use of a prepackaged oral rehydration solution in favor of a home-mixed, water-sugar-salt solution. Use of prepackaged oral rehydration salts would have required that the Department of Medical and Health Services purchase the packets (or find a donor to pay for them) and then distribute them to health clinics, health centers, and village health dispensaries. In addition to the cost of the packets, there would have been the logistical and management burdens of warehousing, inventory control, and distribution. Inevitably, there would have been distribution breakdowns and coverage gaps. The oral rehydration packets deteriorate from heat and humidity after a year or so and are therefore often unusable. In addition, many villages are far from health clinics. Mothers with sick children would have had to walk long distances to the clinic and wait in line to get the packets, greatly delaying treatment of a sick child.

The home-mixed solution could be prepared in the village using water, sugar, and salt--common household items readily available in all villages. Treatment could start promptly because the materials would be available when needed. The beneficiaries (not the Government) would pay for the water-sugar-salt treatment, thus reducing Government costs and logistical problems. Using a home-prepared mix also would reduce the demands on Government health clinics. Mothers could treat their children at home rather than take them to a clinic. By reducing the number of patients treated for diarrhea at health clinics, resources could be freed for other treatments.

The technology choice made sense for The Gambia. It re-

duced Government financial and management costs while allowing timely treatment. However, these benefits must be balanced against the costs of educating users. Mothers not only had to be educated on the need to use the oral rehydration solution, they also had to be instructed in the proper preparation of the solution. An improperly mixed solution could be ineffective or, if too much salt were used, lethal. Thus the choice of dissemination technology was critical.

Dissemination included radio, print (posters and booklets), and face-to-face contact. Personal contact can be the most effective because it allows direct instruction, demonstration, and questions by the user. It is also the most expensive and personnel-intensive method. Health worker training, travel, and supervision place a heavy burden on a public health system. Since The Gambia had a primary health care system that already provided effective nationwide coverage, the marginal cost of having the existing health workers deliver the oral rehydration therapy message was minimal.

Posters provided simple instructions and reference information at low cost. Radio proved to be a low-cost, comprehensive means of getting the message out to a dispersed rural population. (The project was not charged for radio air time; however, even at an imputed cost of \$46 an hour, the cost was low.) Radio spot announcements and the Happy Baby Lottery generated widespread knowledge of both the need for the oral rehydration solution and the proper mixing procedures. The innovative use of radio provided nearly nationwide coverage at very low cost.

All three dissemination techniques (face-to-face, print, and radio) were needed, and all three were used in a way that reflected The Gambia's development capabilities.

There is one final point, however, on the appropriateness of the technology: the appropriateness of the donor's inputs. MMHP-supplied equipment and materials were generally appropriate to local conditions and needs. There was, however, one major exception. The evaluation team found the two A.I.D.-supplied project vehicles (Chevy Blazers) unused and rusting behind the Department of Medical and Health Services building. The vehicles had extremely high fuel consumption rates, and neither spare parts nor maintenance service was available in The Gambia. These vehicles were inappropriate to Gambian conditions. The project would have been better served by European or Japanese vehicles that are more fuel efficient and are available and serviced locally.

Lesson Learned: In a developing country with low per capita income and limited institutional capacity, both the technology and its dissemination must be simple, precise, and cheap. "Simple, precise, and cheap" are relative concepts that must be measured against a country's level of development and its institutional capacity. In this case, "simple" means uncomplicated;



"precise" means focused, exact, and clear; and "cheap" means that it is the least-cost alternative. Before supplying inputs, a donor should survey the local economy to be sure that the inputs are appropriate to local conditions and can be maintained at reasonable cost.

The technology (the home-prepared water-sugar-salt solution) and the teaching methods of the project were sustainable because they were simple, precise, cheap, and made only modest demands on the health bureaucracy. Water, sugar, and salt were available in most homes, and existing Gambian health workers spread the message about the technology. They also used simple pictorial posters that explained dehydration symptoms and the proper way to mix the water-sugar-salt solution using locally available supplies and household measuring implements. Radio carried the message into nearly every village compound.

### 3.2.2 Project Time Frame and Phaseout

The time period for the MMHP project in The Gambia was 3 years--May 1981 through June 1984. Implementation occurred in two phases. The project began as a 2-year experiment to determine whether behavior patterns in the treatment of infant diarrhea could be changed. This was followed by a 1-year extension (the mini-campaign) that emphasized the institutionalization of the project's educational methodology within the Health Education Unit of the Department of Medical and Health Services.

The first 2 years of the project included a 6-month preprogram research activity followed by the actual execution, monitoring, and revision of the public education campaign. The purpose of the MMHP project was to introduce the use of home-mixed oral rehydration solution and to encourage other behavioral changes related to the prevention and treatment of diarrhea and its accompanying dehydration. Furthermore, it aimed simultaneously to develop and demonstrate improved methods of using mass communications in conjunction with existing health services in an integrated campaign to support desired changes in health practices.

The experimental campaign approach of the first 2 years of the project was carried out through broadcast, print, and face-to-face channels to deliver a coordinated set of messages about a narrow set of issues--responses to infant diarrhea. The methodology used required (1) message selection and design, (2) product testing, (3) message pretesting, (4) overall instructional program design, (5) management of media production and distribution, and (6) the monitoring and modification of program components.

It was the orchestration of these six elements into a comprehensive, simplified methodology that was at the heart of project implementation. (Formal, ongoing evaluation of the project was conducted by another contractor.) Implementation of this methodology relied on the following:

- Radio was the primary medium for promoting the use of home-mixed oral rehydration solution and for providing further instruction on the mixing procedures described in flyers. Radio messages also included information on the dangers of diarrhea and the need for a special diet.
- Print materials were designed, pretested, and distributed to health workers, "red flag" mothers,<sup>3</sup> and other volunteers.

<sup>3</sup>Red flag mothers were village volunteers trained to identify diarrheal problems requiring oral rehydration therapy, to promote its use, and to instruct mothers in proper mixing techniques.

- Training was conducted on three levels: selected health workers were trained by project staff; health workers in turn trained nearly 1,000 volunteers and red flag mothers in rural communities, who then instructed mothers on the proper use of the water-sugar-salt solution in the home.
- Material development and testing was a continuing, systematic process that stressed testing and revision.
- Monitoring of campaign components occurred through periodic visits to rural communities to monitor program impact.

The implementation plan for the third year of the project (the mini-campaign) emphasized the institutionalization goal as indicated in the Amendment to the Project Letter of Agreement: "Special emphasis will be given to the in-service and on-the-job training of Health Education Unit personnel, including the development of specific skills in instructional design, message selection and development, field research and materials testing. The purpose of this special emphasis is to ensure, to the greatest extent possible, the institutionalization of the project's educational methodology, which is one of the project's explicit goals."

It was during this phase that the limited process of institutionalization was accelerated. Interviews with Gambian project personnel revealed universal agreement that the in-service training had improved the Gambian Government's capability to implement the mini-campaign independently. The technical advisers assigned to the project "slowed-down" their efforts, allowing the Health Education Unit to "do it themselves." Although very limited, the process of institutionalization was underway. However, the effort was too little too late. It did

not have time to take hold.

Organizing and developing an innovative campaign of this nature requires an intensive effort and leaves little time for structured, independent training or skills development. Because time did not allow long-term technical training, the project chose to rely heavily on in-service training. That so much remains from the project despite these limitations is impressive and a credit to the motivated Gambian counterparts who are still involved in project activities.

Time was particularly important to this project because the oral rehydration solution and mass communication methodology were new products. The project first had to create demand by developing consumer awareness and then had to maintain and increase this demand. Behavior patterns change slowly and require reinforcement.

The end of donor support created a resource void in the Health Education Unit, which went from an intensive, resource-rich campaign effort to dependence on a limited host government budget. All of the full-time project implementers left, and the Health Education Unit staff that remained had limited time and resources. It was impossible to maintain the level of interest and effectiveness generated by the campaign. Using mass communications to promote the oral rehydration solution was only one of many activities in which the Unit was engaged. Because the project began as a short-term, 2-year experiment and was followed by only a 1-year extension, continuity and forward planning were absent. Although phase-over was implied in the third-year activities, much more should have been done to prepare for full host government management of the program.

**Lesson Learned:** Time is one of the most important constraints to institutionalization. A 2- or 3-year time period is too short. A.I.D.'s experience shows that at least 5 and often more years may be required to implement a project and permit the successful transfer of project management responsibility to counterpart staff.

The 3-year time period of the Gambian MMHP project was too short to ensure institutionalization. The 2-year experiment worked, but even with the 1-year extension the project's 3-year time frame was far too short to develop the technical expertise needed for institutionalization within the Department of Medical and Health Services.

**Lesson Learned:** An unplanned or abrupt end to donor funding may be too great a shock for the developing institution. To use time effectively to achieve sustainability, a gradual and planned phase-over of activities is required.

The sudden end of funding of the MMHP project created

a resource void in the Health Education Unit, which went from an intensive, resource-rich campaign effort to dependence on a limited host government budget. The Government was ill prepared financially and did not have the personnel to take over project efforts.

### 3.2.3 Effectiveness of the Health Message

The MMHP project delivered a coordinated set of messages designed to increase knowledge and change the behavior of mothers in treating infant diarrhea and related dehydration. The Stanford evaluation of August 1985 (Spain and Snyder) found that during the second year of the campaign, 56 percent of diarrhea episodes were being treated with the water-sugar-salt solution.

Overall the data indicated that the campaign had had little effect in changing mothers' mistaken view that the rehydration solution cures diarrhea. The problem was that mothers were seeking a cure for diarrhea. That dehydration was the killer seems to have been hard for village mothers to grasp. It appears that when the rehydration solution (which mothers viewed as medicine) did not produce a quick cure for the diarrhea, they sometimes abandoned the treatment. Without it, the child's condition could deteriorate rapidly and lead to death from dehydration. Villagers often look upon modern medicine as magic and expect miracle cures, which it can rarely deliver.

Lesson Learned: There is a difference between product launch and the maintenance of demand. A communication project must be able to continuously revise its messages to ensure that the target audience fully understands the desired message.

After the initial launch of the promotional messages on oral rehydration solution, revisions were required to clarify user misconceptions. Unfulfilled expectations led to abandonment of treatment in some cases.

## 3.3 Organization and Management Factors

### 3.3.1 The Balance Between Short-Term Outputs and Longer Term Institutional Development

The MMHP project was conceived and designed in Washington to test methods for using mass media to promote oral rehydration therapy. It was a research and development effort designed to increase knowledge and to change behavior. The project relied on intensive planning research, behavior analysis, social marketing, and evaluation to identify elements requiring redesign.

The project was a short-term experiment. It included a technical assistance adviser to operate the program and an evaluation adviser to analyze the program's effectiveness. By design, the project did not include participant training. Limited in-service training programs were held for health workers and traditional birth attendants. The project provided only limited amounts of commodities and materials that were directly related to operations and evaluations.

The project technical advisers were under a great deal of pressure to produce results. Because this was a pilot research and development effort, time was short and outputs had to be generated quickly. Thus, the project concentrated resources on an intense effort to generate immediate and measurable benefits, including surveys, media messages, training programs, and field evaluations.

In any project there are short-run output objectives and longer run institutionalization objectives. This project emphasized immediate outputs. The project did not train counterparts who could take over the responsibilities of the technical advisers, and it provided only limited support to develop Gambian capabilities in designing, implementing, and evaluating training programs, media campaigns, and sample surveys. When the advisers departed, most of the skills departed with them.

Lesson Learned: Sustainability relates to the capacity of host government institutions to maintain the flow of benefits. A major part of sustainability is the institutionalization of skills, knowledge, and capabilities within host government institutions so that they can maintain the flow of project benefits when external funding and technical support end. Sustainability requires a longer time frame, with more emphasis on training and skills development.

This project was weak on institutional development, and thus sustainability suffered. The project planners had hoped to achieve greater institutionalization. However, given its short time frame, the project had to emphasize research and development and an intense campaign to change behavior, leaving insufficient time for efforts directed at institutionalization.

### 3.3.2 Training of Headquarters Staff

Given the project's time frame, project planners chose to provide on-the-job training for Health Education Unit staff rather than medium- or long-term participant training. In addition, because of the innovative nature of the MMHP project, project planners did not believe that U.S. institutions could impart the type of skills needed. On-the-job and in-service

training were used to develop the skills required for the mass media methodology and oral rehydration therapy techniques. This decision to forego long-term training affected the sustainability of project activities and benefits after the A.I.D. project ended.

During the first 2 years, project activities were focused almost exclusively on implementation of the campaign. Although on-the-job training did take place, there was little time for more formal training. During the third year, the emphasis was shifted to include more formal training of Health Education Unit staff, and significant skills transfer did occur. But 12 months was not enough time for the Unit to develop the complex and varied skills required for a new strategy of health education. The skills required to implement a mass media campaign are varied and require formal training in several disciplines including marketing, communication techniques, formative (particularly behavioral and qualitative) research techniques, survey techniques, and program management. The project planners did not think that long-term training would provide the skills needed. They chose to rely on on-the-job training.

One way to ensure that project activities are sustained is to provide the host country staff with broad-based, medium- and long-term participant training. Had the project had a longer time frame, qualified individuals could have received such training and then returned to assume operational responsibilities. They would also have been able to benefit from on-the-job training by the technical assistance advisers during the final years of project implementation. This blend of technical/academic training and in-service experience produces institutional benefits that continue far into the future. Also, the capability of newly trained personnel to adapt programs to the host country context and to participate in the development of new projects is useful to the host government.

Training programs usually face the additional problem of having few trained people available to replace those being trained. Once trained, they are likely to be reassigned--or to leave government positions. A project has to train more than enough people to allow for attrition.

The Health Education Unit had staff members with the appropriate backgrounds to take advantage of such training. The success of in-service training was at least partly attributable to the fact that several members of the Unit had recently returned from a year of health education training in Nigeria. The cost to a project of sending two or three participants for postgraduate work is moderate and far outweighed by the stream of future benefits.

Lesson Learned: To achieve sustainability, a project that depends on advanced, technical skills must make a commitment to medium- and long-term participant training.

The project chose to rely on in-service and on-the-job training. The evaluation team concluded that some formal training and/or additional time was required to develop the complex and varied skills required for the health education strategy of the project.

### 3.3.3 Training/Retraining of Health Workers

The maintenance of skills, such as the mixing of the oral rehydration formula or proper feeding during diarrhea incidents, requires periodic reinforcement through a retraining program. The initial training conducted under the project was excellent. However, training is now much reduced and evidence from recent studies shows a drop in the use of oral rehydration solution. The limited reinforcement through coordinated educational radio messages, face-to-face contacts, and retraining sessions for health workers contributed to this erosion.

Health workers need to be trained in new approaches and mothers need to have their skills refreshed and to receive encouragement. Retraining is an important item that is often given low priority in host country budgets. With WHO assistance, retraining was planned for the end of 1986. But without such external assistance, this opportunity to reinforce skills would have been missed.

Lesson Learned: Retraining is as important for sustainability as the initial training. The newer the concept in health education, the greater the need for reinforcement through retraining. Both the host government and project designers must include retraining if the benefits of a project are to be sustained.

The initial training under the MMHP project was excellent. The erosion of achievements can be traced in part to the limited follow-up retraining. Because the concept of oral rehydration therapy and the skills required for its use were new, reinforcement through retraining was critical to project success.

### 3.3.4 Spread Effects and Spin-Offs

Mass Media Methodology. One of the most impressive indicators of sustainability is the transfer of a project's technology to other areas. The technology dissemination techniques developed by the MMHP project have achieved remarkable acceptance. The Department of Medical and Health Services is using the methodology developed by the project in the areas of family planning and nutrition. The Health Education Unit has also been working with other Government Ministries, most recently with the Department of Agriculture on a locust-control

campaign.

By the end of the MMHP project, the Health Education Unit staff had acquired a good level of technical expertise. Unit staff have become recognized as the mass media experts within the Gambian Government, and their reputation can be fairly attributed to the MMHP project and the dramatic behavioral changes the project was able to effect in the treatment of infant diarrhea.

While this is a good thing, it may be too much of a good thing. The Health Education Unit consists of a five-person staff with one secretary, and its absorptive capacity has already been reached. There is a desperate need for both long-term training and an increase in staff. If resources were available, the optimum strategy would be to bring two to three new employees into the Unit while current employees are phased into a participant training program. When these individuals returned from training, the Unit would not only have doubled in absorptive capacity, but it would also have improved the technical capabilities of its staff.

Lesson Learned: Spread effects and spin-offs are tangible evidence of sustainability. Capacity must be firmly in place before demand for new services is generated.

Demand for the project's mass media technology in The Gambia spread so quickly that the small Health Education Unit was unable to keep pace. A donor assistance program that provided support to the Health Education Unit would increase the capacity and quality of the Unit while reducing the level of external technical assistance required.

Print/Publications Capability. The MMHP project used the Book Production and Material Resources Unit of the Ministry of Education to produce all project print materials. Before the project, most printing of Department of Medical and Health Services materials had been done by the Government Printing Office.

MMHP staff demanded high-quality products, which initially taxed the ability of the Book Production Unit. But by the end of the project, the Unit was able to produce quality work on a timely basis. The posters and flyers developed for the MMHP project were of superior quality and received wide distribution. This reputation has earned new business for the Book Production Unit.

Because all organizations, whether Government or private, must pay for materials produced by the Book Production Unit, the new business generated by the project has led to an increase in revenue for the Unit. As a result, the Ministry of Education and the Treasury have upgraded the Unit's facilities and increased its staff, and the Unit is now in the forefront of printing in The Gambia.



Radio Gambia. Radio programming played a critical role in the overall oral rehydration therapy education campaign. Radio Gambia, the national radio station, was strengthened through the MMHP project and represents a visible example of sustained project benefits. Radio Gambia received equipment that was purchased to meet the project's broadcast needs. This equipment was still in place at the time of this sustainability evaluation and was being used for diarrheal treatment messages and many other public information broadcasts.

Perhaps more important than the equipment was the increase in the technical skills and understanding that Radio Gambia personnel gained by working with project personnel. Through the MMHP project, Radio Gambia personnel learned vital information about their audience's listening patterns through surveys and other market research. The project demonstrated the value of these activities, and the market research skills developed through the project are still being used today to update the information learned. The quality and sophistication of the broadcast messages and the delivery technique have been dramatically increased as a result of the MMHP project. The Gambian Government now has an institution that provides technical support for public information broadcasting on a variety of topics.

Lesson Learned: Investment of project resources in local enterprises can have a multiplier effect.

In The Gambia, the national radio station and the Government's Book Production Unit were strengthened, and those capabilities are now available for other development initiatives.

### 3.3.5 Postproject Support

When the MMHP project ended, the technical assistance advisers departed and all funding ceased. There was no gradual phase-over or any plan for postproject support. However, there were other activities that provided some support to the Health Education Unit.

Soon after the end of the project, WHO funded an in-service training program for the clinical assessment of diarrhea. Nearly a year later, in December 1985, MMHP expatriate staff returned to The Gambia to present the results of the MMHP final project evaluation. After this presentation, a centrally funded A.I.D. project (Technology for Primary Health Care--PRITECH), focusing on diarrheal disease control, provided a short-term consultant to the Department of Medical and Health Services.

PRITECH also funded two studies to assess the knowledge, attitudes, and practices of mothers, Government health workers, village health workers, and traditional birth attendants concern-

ing the use of the water-sugar-salt solution in the control of diarrheal diseases. These studies demonstrated that project gains in knowledge, attitudes, and practices related to the treatment of diarrhea had eroded since the end of the MMHP project. These studies also indicated that mothers tend to view the rehydration solution as a cure for diarrhea and not as a method for oral rehydration. Some have suggested that the decline in the use of the solution might be attributable to mothers' disillusionment with the treatment because it does not cure diarrhea.

The PRITECH project provided for limited reprinting of posters and flyers developed under the MMHP project. PRITECH's finding that the organizational structure of the Gambian Diarrheal Disease Control Committee was ineffective led to the nomination of a national Diarrheal Disease Control Coordinator by the Department of Medical and Health Services (see Section 3.3.6).

Retraining of village health workers and traditional birth attendants in the use of the oral rehydration solution was planned, with WHO assistance, for the end of 1986. Short-term PRITECH assistance to the Diarrheal Disease Control Program may also be available.

A training workshop on mass communication methodology sponsored by A.I.D./Washington was held in 1986 to strengthen formative investigation techniques for family planning programs in The Gambia. For a proposed World Bank health sector loan, Manoff International conducted a situational analysis of the use of mass communication methodologies in The Gambia in March 1986 which found that the mass media methodology developed and promoted by the MMHP project was not currently being employed. Although such a conclusion is probably an overstatement, erosion of mass media capabilities has been severe. Also, although some aspects of the methodology, such as pretesting of printed materials, were being followed by the Health Education Unit, this did not constitute the essence of the mass communication methodology.

The Manoff team suggested the use of mass media methodology to strengthen family planning and nutrition programs in The Gambia under the proposed World Bank project. The Manoff report called for a 5-year assistance plan for these two programs valued at \$340,000. Total World Bank assistance to the health sector is expected to be \$18 million.

Since the end of the MMHP project, UNICEF and the British Combating Childhood Communicable Diseases project have provided partial support to the operations of the Health Education Unit. During 1986, UNICEF was to contribute nearly 50 percent of the cost of maintaining the Health Unit's operations.

Lesson Learned: Given demonstrated success, other donor and regional A.I.D. programs can help to sustain postproject activities. Limited, but focused postproject maintenance support is necessary to

preserve project achievements.

Because MMHP was a short-term, innovative effort that was of interest to the United States and other donors, the Health Education Unit received some ad hoc, postproject assistance, but it was not enough to maintain the momentum developed during the project.

### 3.3.6 Integration of Program Operations and Administration

**Vertical Into Horizontal.** The structure of most health projects can be characterized as either vertical or horizontal. Horizontal programs attempt to deliver a wide range of health services in a comprehensive, coordinated fashion. In contrast, vertical interventions are focused on a particular disease or health problem (like malaria or diarrhea). Vertical programs are normally chosen when a health system is considered to be unable to quickly address a pressing health problem.

It is generally agreed that successful integration of a vertical program into a horizontal program can contribute to the program's sustainability. Few developing countries have the resources to support a number of independent, vertical health programs with separate implementing agencies. Thus, it is argued, once a vertical program achieves a certain level of success (for example, a certain acceptance or immunization rate), that level can be maintained through the comprehensive health system. However, experience in a number of developing countries has shown that integration is very difficult to achieve. Different bureaucracies with different agendas, personnel systems, and resource bases are often competitive and hard to bring together. Often, the vertical program is integrated into an organization that has poor management skills and financial resources. This may result in a system that is more a planning concept (a chart on the wall) than a functioning institution.

The MMHP project focused on one critical health problem--childhood mortality due to diarrhea. There is evidence that the project's desired behavior change, the use of oral rehydration therapy for diarrheal treatment, has become integrated with The Gambia's primary health care system. The evaluation team's interviews with workers at all levels of the health delivery system revealed an awareness, acceptance, and use of the oral rehydration solution. The project has left behind an understanding of dehydration prevention and treatment that did not exist before. The health supervisors and village health workers interviewed by the team not only knew the correct formula for the water-sugar-salt solution, but also explained the importance of continuing to breast feed and to offer solid foods during episodes of diarrhea. In some of the villages visited by the team, MMHP posters were still displayed. Flyers developed by the project were being used at a well-baby clinic that the team visited.

Why has The Gambia been able to successfully integrate the vertically structured oral rehydration therapy program into its regular health care delivery system when so many other developing countries have failed to integrate vertical programs? One reason may be that this project worked through the existing health system, including village health workers and traditional birth attendants. The other group of implementers trained under the project, red flag mothers, who were not part of the existing health system, are no longer a part of the oral rehydration therapy system. The village health workers and to a lesser extent the traditional birth attendants who received training are still using the oral rehydration formula. Team interviews with the Primary Health Care Training Unit of the Department of Medical and Health Services confirmed that the water-sugar-salt solution continues to be a part of the routine training and retraining programs. However, the training is limited and the actual use of the oral rehydration treatment by mothers is declining.

The simplicity of the technology and its low cost also contributed to successful integration of the oral rehydration therapy. Once learned, the water-sugar-salt formula is simple to prepare using items generally found in the home. This eliminates the need to supply oral rehydration solution packets or to finance a distribution and storage system.

Lesson Learned: Vertical programs are usually very difficult to integrate into a horizontal delivery system. The more existing cadres are used in projects and the simpler the technology, the easier the integration will be.

While usage rates for the water-sugar-salt solution have declined, it has successfully become a part of the health care delivery system. The promotion of the water-sugar-salt solution appears to have become successfully integrated with the regular health delivery system because the technology was simple and inexpensive and because it was implemented primarily through a cadre of existing health workers. Evidence of success is the fact that there is no need for a separate system to deliver oral rehydration therapy to the population. Such efforts have been integrated within the national health care system.

### 3.3.7 Host Country Efforts To Institutionalize Project Benefits

During the life of the project, the need to coordinate national oral rehydration therapy efforts was recognized, and an Oral Rehydration Therapy Steering Committee was established. Unfortunately, after the second year of the project, the Committee became inactive. Encouraging movements are now more evident at the national level. Recently a Diarrheal Disease

Coordinator position was created within the Department of Medical and Health Services, and a highly qualified individual was appointed to the position. This is an important step toward ensuring that the gains of the project are sustained. The appointment reflects the Government's commitment to diarrheal disease control and provides a formal mechanism for monitoring and coordinating oral rehydration therapy efforts at all levels of the health care system and for focusing and mobilizing external resources.

By showing that promotion of oral rehydration therapy could be effective in The Gambia, the MMHP project has opened the door to efforts by other donors. By strengthening the management capability of the Department of Medical and Health Services, the project enabled the Department to be viewed as an institution capable of effectively absorbing more development resources.

Lesson Learned: Success tends to lead to more success. The more a program shows a capability to effectively use external resources, the more likely it is to receive the resources.

The Gambia has demonstrated to the donor community its capability to absorb and manage health resources. Future health programs will start with a higher level of technical and management capability within the Government.

### 3.3.8 Information Feedback

The MMHP project included a major evaluation component, which emerged as one of the most innovative and valuable aspects of the project design. The Gambia MMHP project was a pilot effort in an A.I.D. priority health area and, if successful, its methodology was to be replicated elsewhere. Because of this, the evaluation of project efforts was intended for a broader audience than The Gambia alone. Communication methodology lessons learned from the two pilot projects in The Gambia and Honduras were important to the Agency. This unique and special approach to information feedback, although expensive, was appropriate to future applications of MMHP project technologies.

The MMHP project provided for a full-time, in-country evaluation contractor, Stanford University. Although its funding and operations were separate from that of the implementation contractor, there was effective cooperation between the two contractors. In a controlled experiment, the evaluation component should be completely uninvolved with implementation--observing and recording what goes on. However, to maximize the limited resources available to the project, the evaluation contractor assisted the implementation contractor in designing aspects of the formative evaluation procedures. Frequent feedback from this evaluation data enabled the project implementors to gauge exposure to messages and behavioral changes

among end-users and to improve message content and expression accordingly. These efforts accounted for a large part of the success of the campaign.

A major part of this evaluation effort was a large-scale longitudinal study of a sample of over 1,000 mothers. Using repeated surveys, interviews, and other measurement instruments, researchers gathered data on population demographics, anthropometric measurements, and morbidity and mortality. The surveys also included information on changes in behavior related to the treatment of diarrhea--knowledge, attitudes, and practices. The health status data provided a measure of the impact of the use of the oral rehydration solution, while the behavioral data provided information on health and hygiene practices that were being influenced by the messages the project was delivering.

The evaluation component has proved to be a consistently valuable tool for gathering information that can be used in guiding project development and assessing its impact. Moreover, the detailed information from the evaluation findings will provide excellent guidelines for future efforts to replicate the project in other developing countries.

Information feedback did not stop with the formal evaluation; it was an integral part of MMHP implementation. The Project Paper identified six elements as "the heart of the implementation contractor's task and central to replication of the project elsewhere": (1) message selection and design, (2) project testing, (3) message pretesting, (4) overall instructional design, (5) management of media production and distribution, and (6) monitoring and modification of program components.

To accomplish these tasks, formative evaluation skills were required to test and then revise the program messages and delivery techniques. Sustainability of the project depended in large part on the ability of Gambian counterparts to learn these activities through in-service training. The sustainability evaluation team concluded that although developmental investigations using knowledge acquired through the MMHP project are still being conducted in The Gambia, the level has been sharply reduced. This is a combined result of inadequate resources and insufficient time to institutionalize these skills within the Health Education Unit. When A.I.D. funding ended, the six-person survey section of the Health Education Unit was dismissed. A.I.D. has funded some short-term consultants to help keep things going, but the capability of the Health Education Unit falls short of that required for sustainability.

**Lesson Learned.** Managers need a continuing flow of information so that program approaches and dissemination techniques can be reevaluated and redesigned. An ongoing evaluation system helps project managers determine how well their project is performing and which methods work most-effectively. The lack of such a system reduces postproject sustainability.

Because MMHP was marketing a new health practice, managers needed to know how effectively the message was being received and what actions the "customers" were taking. During the period of A.I.D. funding, the project had an effective information feedback system. Once A.I.D. funding ended, however, the system was drastically reduced. By the time of this evaluation, there was only limited information/ feedback capacity remaining in the Ministry's Health Education Unit.

### 3.3.9 Use of Volunteers

The MMHP project employed village red flag mothers during the Happy Baby Lottery to demonstrate proper mixing of the water-sugar-salt solution. Particularly in areas of the country where health personnel were scarce, the red flag volunteers served as extension workers who delivered the oral rehydration therapy message directly to mothers with sick children. This network of more than 700 volunteers provided effective face-to-face reinforcement of the mass media campaign messages.

Volunteers were selected by Government health workers in consultation with village elders and were given a red flag to display at their home. Campaign messages instructed mothers to seek out red flag volunteers to help them prepare the water-sugar-salt solution.

Red flag volunteers have been identified as a key factor in the success of the mass media campaign. However, no provisions were made for using these volunteers after the end of the campaign cycle. This decision was made by the Department of Medical and Health Services so that red flag mothers would not be competing with village health workers. The red flag system is now dissolved. Although some red flag mothers became traditional birth attendants or village health workers, most believe that they have been forgotten by the health system. In the words of one red flag volunteer interviewed, "either the program is dead or I am not good enough for the Medical and Health Services Department." While the project's strategy is defensible, it is not clear that the volunteers understood the transitory role they were to play.

The MMHP project also used existing village health workers and traditional birth attendants to communicate the oral rehydration therapy message. These health service providers were also volunteers to the extent that the Department of Medical and Health Services did not provide financial support. Traditional birth attendants continue to be paid through customary arrangements, while village health workers are to be reimbursed through the Village Community Councils. Payment is often in-kind; usually clients exchange labor on the village health worker's farm for health services.

Team interviews at all levels of the system showed that the

volunteer system was experiencing serious difficulties. Village health workers were working with little or no compensation. Each time they were called in from their work in their fields, as happened when the evaluation team visited villages, productive time was lost. A system that does not provide adequate compensation or incentives to its "volunteer" health workers is unlikely to be sustained.

Lesson Learned: Parallel health delivery services may be effective, but they must be integrated at some point into ongoing systems if they are to be sustained.

The project effectively used a network of volunteers during the campaign that was not part of the regular health care system. Without the subsequent support of the Government, the network ceased to deliver benefits.

Lesson Learned: Although volunteers can provide low-cost extension of program outreach, such a system is not sustainable in the long run.

In The Gambia, when compensation ended (either financial or in-kind), volunteers dropped out. Certain project incentives provided recognition and prestige (e.g., displaying the red flag) and were effective during the project period. But the incentive effect of flags and T-shirts faded, and participation eroded.

### 3.4 Political and Sociocultural Context of the Project

#### 3.4.1 Government Receptivity to Donor Involvement

The Government of The Gambia has historically been very receptive to donor assistance efforts. Approximately 10 foreign government agencies and 5 private voluntary organizations have health assistance programs in The Gambia.

In health, as in other sectors, A.I.D. has worked closely with the Gambian Government to train staff and organize grass-roots development programs. Government staff and villagers are interested and actively support project efforts. In contrast to some developing countries that limit donor involvement to a few programs or regional areas, The Gambia does not. While many developing countries bristle at the thought of foreigner-supported programs, The Gambia does not. Whereas many developing countries refuse to permit research studies that include village-level interviews and micro-level data collection on attitudes and practices, The Gambia does not. The Gambia has encouraged donor efforts and has put few restrictions on program activities. The Government fully supported the MMHP fieldwork.



Lesson Learned: Projects that include social marketing require knowledge of village-level needs and attitudes. Such projects cannot be run from the capital city. They require the full support of the government and the recipients. Such projects should only be considered for developing countries that share A.I.D.'s objectives.

The receptivity of the Gambian Government made it possible to collect the baseline data that was needed to measure the impact of the messages.

### 3.4.2 Differences Between A.I.D. and Gambian Government Objectives

A.I.D./Washington, the USAID Mission, the A.I.D. contractor, and the Gambian Government all shared a common interest in mass media and diarrheal disease control. However, each organization had its own view of what needed to be done first and what should be emphasized. Each had its own biases and interests.

A.I.D./Washington viewed the MMHP project as a research and development program for determining whether mass media methodologies could be effectively used to change health behavior. In order to develop and test mass media techniques, project designers chose to promote oral rehydration therapy because it was a relatively simple and low-cost health technology that had been proven effective within diarrheal disease control programs.

A.I.D./Washington wanted to test and develop techniques in The Gambia that could be used in other developing countries. It believed that a successful program would convince other developing country governments to adopt mass communication technologies to support other health education priorities such as expanded programs of immunization, family planning, and nutrition. A.I.D./Washington also believed that once these countries experienced success with the program, their governments would commit their own resources to sustain the use of mass communications technologies and to institutionalize the program within their own systems.

USAID/Gambia viewed the MMHP project as a research and development effort that could support oral rehydration therapy and diarrheal disease control in The Gambia. The MMHP project was a way to provide focused support to the Government's primary health care system. The Mission's main interest was in diarrheal disease control; mass media was a tool to achieve this goal.

The Government of The Gambia viewed the MMHP project as an experiment in mass communications and the promotion of oral rehydration therapy. The Government wanted to strengthen its national health infrastructure in order to provide primary health care to all Gambians by the year 2000. The MMHP project resources would support a national oral rehydration therapy

program that had been identified as a national primary health care priority. The Government's major interest was in improving its health care program.

A.I.D./Washington believed that the major research and development objectives of the project had been achieved after 2 years of project operations. However, because institutionalization of the mass media methodology had not occurred, A.I.D./Washington, USAID/Gambia, and the Gambian Government agreed in November 1982 that a 1-year project extension, to April 1984, was necessary to permit institutionalization of the methodology and the oral rehydration therapy program within the Gambian health system.

At the end of the extension period, A.I.D./Washington believed that The Gambia could become one of the first countries in the worldwide project to attain A.I.D.'s objective of expanding the use of mass communication techniques to other areas of health education. An A.I.D./Washington proposal for an extension of MMHP activities emphasizing nutrition was developed and presented to USAID/Gambia.

At the conclusion of the third year, USAID/Gambia believed that its objective of strengthening the diarrheal disease program in The Gambia had been achieved. Although USAID/Gambia was willing to consider an extension focused on maintenance of the oral rehydration therapy program, it did not support an extension of project activities to another sector--nutrition. A.I.D./Washington did not consider this to be a new sector but rather a focus on nutrition issues related to diarrhea, which it argued had always been a component of the treatment of diarrheal disease.

Negotiations between the USAID Mission and A.I.D./Washington focused on whether the project should be limited to oral rehydration therapy or expanded to include nutrition. Discussion also turned on whether it would be centrally funded, regionally funded, or country funded. These issues could not be resolved. In the spring of 1984, the Mission informed A.I.D./Washington that it could not support an extension of MMHP operations. The Gambia MMHP project ended in June 1984. On completion of project activities, Gambian contract staff were released. Personnel who had been transferred to the project from the Department Medical and Health Services were transferred to other units in the Department. The Health Education Unit was left to carry on project operations, as best it could, along with its regular work load.

Throughout the implementation of the project, even after its success had been demonstrated to project staff and A.I.D./Washington, the Gambian Government continued to view the project as an expensive though successful experiment. Given other priorities, diminishing resources, and the abrupt termination of project activities at the end of the extension period, the Government did not commit the staff and resources necessary to sustain the program.

A.I.D./Washington was interested in testing a model of health education techniques. Both the contractor and A.I.D. wanted to prove something. The Gambian Government wanted to solve a health problem--to reduce diarrhea-related morbidity and mortality. The USAID Mission wanted to support a health effort concentrated on diarrheal diseases.

Lesson Learned: Different players can have different objectives, which may not be mutually supportive.

Unresolved and conflicting A.I.D./Washington and field Mission agendas stifled efforts to maintain a successful development program.

### 3.4.3 A.I.D. Priorities and Program Strategy

Because of the food crisis in Africa, the Africa Bureau made it clear to senior A.I.D. management that programs for Africa would emphasize development of the agriculture sector above all others. At another level in A.I.D., the Child Survival Strategy began to gain prominence. The A.I.D. Administrator, together with UNICEF, began to talk of focused health activities aimed at saving the lives of children in the developing world. Expanded programs of immunization and oral rehydration therapy came to be considered the twin engines of the Child Survival Strategy.

During implementation of the MMHP project, A.I.D. faced budget stringencies that led to a redefinition of Agency priorities. Based on this redefinition, the Africa Bureau notified the field Missions to cut back and to concentrate and focus country programs to ensure effective program management. Within this context, smaller Missions like USAID/Gambia came under close scrutiny. There was even talk of closing down small African Missions altogether. In the end, the Gambia Mission was not eliminated, but personnel and projects were trimmed.

A.I.D./Washington, viewing the project as a success, believed that activities should be extended. Because nutrition was an integral part of diarrheal disease control, a logical project extension would be to include nutrition. Alternatively, further work could focus on other aspects of communications and diarrheal disease control.

From the USAID/Gambia program perspective, a broadening of project activities would have been a management burden, given its staffing reductions. The Mission believed that the extension of MMHP activities did not sufficiently focus on oral rehydration therapy. It interpreted the proposed emphasis as movement into a new initiative area that was not a part of its development strategy.

Several different project approaches were considered by A.I.D./Washington and USAID/Gambia. The choice of funding sources (country, regional, or central) also was at issue.

Differences in opinion may have been exacerbated by a breakdown in communications. In any event, A.I.D./Washington and the field could not resolve their differences on project focus or funding sources, and the project was ended, with no follow-on effort.

Lesson Learned: Research and development projects may show success in small USAID Missions, but faced with other program priorities, extensions are not always assured. Given constricting USAID Mission portfolios, mechanisms are needed to allow highly successful projects to be maintained without placing an excessive management burden on smaller Missions.

The Gambia Mission is very small with limited staff and thus must limit its program initiatives.

## APPENDIX A

### SELECTED GAMBIAN GOVERNMENT HEALTH EXPENDITURES: RECURRENT BUDGET AND DEVELOPMENT BUDGET

Table A-1. Selected Recurrent Budget Expenditures,  
1984/1985

Item	No. of Personnel	Amount (dalasis)
Health Education Unit	5	35,060
Medical and Health Directorate	25	149,750
Hospital Management Board	26	69,300
Transport Unit	76	298,700
Maternal and Child Health/ Expanded Program of Immunization Unit	NA	159,590
Community Health	NA	766,090
Dispensaries/Subdispensaries	NA	602,340
Vector Control Unit	NA	144,330
Nurse Training	NA	259,980
Joint Research Program	NA	67,810
Royal Victoria Hospital	NA	3,000,240

Bansang Hospital                      NA              545,780

Note: Dalasis 3,546,020, or 52.89 percent, of the total budget is allocated to the two hospitals that deliver curative care---the Royal Victoria Hospital and the Bansang Hospital.

Table A-2. Recurrent Budget Expenditures  
(in Dalasis)

Item	1980/1981 Actual	1981/1982 Revised	1982/1983 Actual	1983/1984 Revised	1984/1985 Estimated
Ministry	509,766	466,440	588,582	809,120	806,980
Transport	356,286	260,580	353,938	314,510	310,700
Medical and Health	7,342,689	7,113,500	8,229,630	9,467,100	9,945,930
Total	8,208,741	7,840,520	9,172,150	10,590,730	11,063,610

Table A-3. Development Expenditure Budget  
(in Dalasis)

Item	1980/1981 Actual	1981/1982 Revised	1982/1983 Actual	1983/1984 Revised	1984/1985 Estimated
Hospitals and Specialized Units	994,446	804,000	850,225	635,000	3,050,000
Health Centers and Dispensaries	567,474	1,370,000	1,894,883	1,125,000	625,000
Other Health Care	226,630	110,000	67,095	1,203,000	1,893,000
Total	1,788,550	2,284,000	2,812,203	2,963,000	5,568,000

Average  
Exchange Rate  
\$1.00 = Dalasis    2.0        2.0        2.5        2.8        3.5

## APPENDIX B

### LIST OF PERSONS CONTACTED

#### WASHINGTON, D.C.

Mr. Anthony Meyer        Bureau for Science and Technology,  
   Directorate for Health,  
   A.I.D./Washington

Mr. William Smith        Academy for Educational Development

Mr. Peter Speain        Technology for Primary Health Care  
(PRITECH)

Dr. Susan Prysor-Jones    PRITECH/Dakar  
   Regional Representative

Ms. Meri Ames        Former USAID/Gambia Health  
   Officer

Mr. Anthony Nathe        Former Director,  
   Project Concern/Gambia

#### USAID/BANJUL

Mr. Byron Bahl        A.I.D. Representative, Banjul

Mrs. Ida Ceesay        Project Development Assistant

#### DEPARTMENT OF MEDICAL AND HEALTH SERVICES

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Dr. Hatib N'jie        Assistant OMS

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Dr. M. K. Gham        Regional Medical Officer,  
   Western Region

#### EPIDEMIOLOGY AND STATISTICS UNIT

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#### HEALTH EDUCATION UNIT

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Mr. Sekou Dibba        Assistant Health Education  
   Officer

Mr. Saihou Ceesay        Health Educator

Mr. Adama Jeng        Health Educator

Mr. Trevor Towle        Graphic Artist

#### NUTRITION UNIT

Mr. S. Taal                      Nutrition Adviser  
Mr. P. Shinnock                Nutrition Adviser

#### PRIMARY HEALTH CARE TRAINING UNIT

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Mr. Smart                         Primary Health Care Trainer  
Mrs. Sanko                        Primary Health Care Trainer

#### MATERNAL AND CHILD HEALTH UNIT

Sister M'Boge                  Senior Public Health Nurse

#### BOOK PRODUCTION AND MATERIAL RESOURCES UNIT

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Samir Silva                        Graphic Artist

#### FILM PRODUCTION UNIT

Ebrima Sagnia                  Director

#### RADIO GAMBIA

Mr. Marcel Thomasi              Director of Information and  
   Broadcasting  
Mr. Ebrima Cole                  Acting Director, Radio Gambia  
Mrs. Amie Joof Cole              Rural and Adult Education

#### ROYAL VICTORIA HOSPITAL

Dr. Brown                         Pediatrician

#### DONOR AGENCIES

#### COMBATING CHILDHOOD COMMUNICABLE DISEASES PROJECT

Mr. Edward Rist                 Project Manager

#### UNICEF

Ms. Surangkana                  UNICEF Liaison Officer -  
   The Gambia  
Mr. Peter McDermott              UNICEF Liaison Officer -

The Gambia

WORLD HEALTH ORGANIZATION

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Yaya Sanyang                      Save the Children  
Pa Amat Njie                      Chief, Farafenni Health Center  
Sister Ruth                      Senior Nursing Sister  
Ngange Senghor                      Community Health Nurse

MANSA KONKO

Dr. Jah                      Regional Medical Officer,  
Central Region  
Dawda Joof                      Senior Public Health Inspector  
Jemie Scattred                      Public Health Nurse Team  
Sister Coker                      Sister in Charge, Mansa Konko  
Fa Bakary Njie                      Community Health Nurse,  
Health Center  
Sana Jawara                      Public Health Inspector,  
Health Center

KWINELLA

Jated Cham                      Community Health Nurse  
Demba Sanyang                      Village Health Worker

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