PRITECH I FINAL REPORT

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PRITECH

Technologies for Primary Health Care

Management Sciences for Health
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PRITECH I FINAL REPORT

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SECTION I

INTRODUCTION

The PRITECH project was completed on September 30, 1989 after six years of work. PRITECH I was essentially an advocacy and promotion project for CDD. AID expected that this investment in PRITECH would serve as a principal vehicle to help the agency translate its ORT/CDD policy priority into concrete program initiatives in AID-assisted countries.

PRITECH, with the invaluable support and assistance of many other individuals and institutions, was able to realize most of AID's expectations. Beyond the direct support of CDD, PRITECH provided a wide range of short-term consultants to AID regional bureaus and missions through the project's Systems Support component. PRITECH was programmatically and financially well supported by AID missions and regional bureaus. The project's target to secure 40 percent of the resources from outside the S&T Bureau was exceeded.

AID decided to continue support to CDD through a ten-year follow-on project that would reach beyond the start-up activities in PRITECH I and provide longer-term support to help these committed countries establish effective and sustainable CDD activities with broad range.

This PRITECH I report is divided into five parts. We lead with a synthesis of lessons learned drawn from each program component. We follow with narrative profiles that describe and analyze country activities. Sections 4 and 5 then review in greater detail the work of the project's Systems Support and Information components.

SECTION II: LESSONS LEARNED

A. PROGRAM MANAGEMENT

The following is a summary of the principal program-management lessons learned, and not yet learned, from our experience implementing the PRITECH I Project:

LESSONS LEARNED

1. AID's continuing long-term policy and program commitment to CDD is essential to realizing AID's and PRITECH's CDD objectives.

   For the past ten years AID has provided worldwide advocacy, leadership, and funding support for CDD. AID has vigorously supported CDD programs within the agency. AID has contributed to both WHO and UNICEF CDD activities. AID has supported the CDD work of the PVOs. AID has provided the major funding support for the three ICORT conferences.

   For PRITECH, the AID program commitment to CDD has made it possible to stimulate governments in 24 countries to start or strengthen their programs, and in PRITECH II, to move beyond the "sizzle" of start-up to help country programs tackle some of the more fundamental implementation and program-coverage issues.

   The 1986 promise of a decade-long commitment by AID to CDD has enabled PRITECH to stimulate national interest in allocating some of their scarce health resources to CDD programs, to attract able country technical specialists to solving local CDD problems, to involve top-quality international specialists in guiding PRITECH's activities, to leverage AID's assistance to enhance support from other donors, to implement an effective CDD information system that reaches program managers and policy makers worldwide, and to address the longer-term issues of sustainability and behavior change by mothers and health providers outside the public-sector systems. As our country-specific experience has grown and countries have gained confidence in us, we have also started to gain access to some of the more sensitive program areas such as drug procurement.

AID's long-term commitment to CDD has enabled PRITECH to work credibly with countries on long-term CDD issues and be accepted as a serious participant in helping countries realize national CDD-program goals. AID's continued commitment is essential for PRITECH to continue as an effective resource in implementing AID's CDD strategy.

2. PRITECH's country-program interventions should be developed from a comprehensive and balanced national CDD strategy that starts with the MOH.

PRITECH's country programs should concentrate on working with the public sector from inception for the following reasons:

- National governments establish the country's diarrheal disease policies, develop national plans and strategies, and allocate public-sector resources for CDD.

- National governments establish case-management and training standards. Governments generally take the lead in the initial national CDD training programs.

- National governments are responsible for maintaining appropriate referral capacities.

- National governments provide sanction for external-donor involvement and are responsible for coordinating their work.

PRITECH has found that developing a strong technical and program base for CDD within the MOH is a key ingredient in mobilizing national leadership and support and for moving progressively to a technically and institutionally sustainable activity. Governments must have the capacity to provide correct diarrhea case-management at the facilities they manage. Governments must have the capacity to train and supervise staff. Governments must be able to deliver a reliable and adequate supply of ORS to the public sector. Governments must understand how to use modern communications technology to sustain public CDD education. Governments must be able to collect relevant program information to make informed management decisions. Governments must have the capacity to solve the program's operational problems in a systematic way.

PRITECH sees support to the MOH in developing these capacities as our first priority.

3. Effective program implementation by PRITECH requires both leadership-quality CDD expertise and capable program managers with an understanding of AID systems.

Since inception PRITECH has sought two kinds of professionals to lead the project: internationally recognized CDD technical experts and AID-experienced program managers. PRITECH believed that this combination of expertise would provide both the project and AID with assurance that the technical initiatives that were being undertaken were sound and represented the best technical judgement available and that the substantial program resources made available by AID would be effectively managed. During PRITECH I we were able to attract internationally recognized CDD experts to both the staff and to the advisory groups and AID-experienced managers to direct project implementation.

This program-management strategy has proved effective. PRITECH's CDD experts have provided the project technical credibility with AID and the outside technical community. They have enabled the project to stay abreast of changes in CDD technology and program strategy and fully engage in technical dialogue as these changes are considered. They have permitted the project to adapt and incorporate changes in CDD technology with confidence. The AID-experienced program managers have facilitated the CDD experts in transferring their expertise into tangible and viable program interventions that meet AID programming standards in a complex and unfamiliar administrative environment.

4. The PRITECH organizational partnership is an effective mechanism to combine the resources of a variety of institutions for a common purpose.

PRITECH is a consortium of institutions including the Academy for Educational Development, Johns Hopkins School of Hygiene and Public Health, PATH, Creative Associates, and CEDPA led by Management Sciences for Health. Each group brings particular skills and experience to the program. No single institution could undertake this task alone. From the outset we decided to operate PRITECH as an integrated unit with staffs from each of the major partners working full-time at headquarters and participating in decision making at every level.

This has worked out very well and can serve as a good administrative/management example for implementation of other large and technically complex projects.

5. PRITECH's program should focus on the effective implementation of available technologies. PRITECH should not seek to build a capacity to develop new CDD technology.

When the PRITECH project started, AID believed that ORT/CDD technology was essentially in place and that the project would need to be almost exclusively concerned with program implementation. It soon became clear that this was not the case. Program implementation was still the major concern but important shifts in CDD technical approaches and emerging unresolved technical problems raised important questions about program-implementation strategy. To meet these unanticipated needs PRITECH strengthened the project's technical staff. While most of the expanded technical staff's responsibilities were directed to country-based program implementation, the technical unit also undertook a few small technology- development activities. All these activities were useful and a few were of high priority. Unfortunately, this limited technology-development program became extraordinarily time- consuming and began to detract from the project's capacity to support the field programs effectively and to exploit emerging opportunities.

After six years of experience we are convinced that PRITECH's unique strength is in flexible support to country programs both in the public and private sector. This is where we should concentrate all our efforts and only under the most extraordinary circumstances should the project undertake technical activities that do not directly relate to the effective implementation of the country programs we are helping. We do not now see a role for PRITECH in CDD technology development.

What is now required is more effort by others to resolve the outstanding CDD technical issues and better communication from PRITECH regarding the practical problems that the unresolved issues are creating for program implementation.

6. PRITECH's country interventions cannot be effectively implemented without resident long-term field staff.

The PRITECH project design contemplated that country-based activities could be effectively supported from Washington by short-term non-resident staff. It soon became clear to us that the fragile national CDD programs could not absorb a succession of short-term external experts because they drained rather than strengthened the local institutional capacities. What countries wanted and needed was not more advice but more capacity to implement and the assistance of institutions and individuals who were prepared to make a long-term commitment to help countries to carry out their national programs.

PRITECH's strategy to support national programs with long-term resident staff has proved effective in Africa, Asia, and Latin America. PRITECH now has in the regions 19 professionals who are working directly with and are integrated into national CDD programs. PRITECH's resident staff are mostly mid-level professionals with a public-health and program-management background. The PRITECH overseas staff is international and includes a number of very well-qualified resident Americans and foreign nationals hired locally. Recruiting a staff locally has enabled the project to field well-qualified professionals at half AID's normal cost. The savings have provided additional support for country CDD activities.

7. Each PRITECH intervention must address the issue of sustainability.

CDD programs need to build toward technical, institutional, and financial sustainability. This means establishing a cadre of nationals who can provide effective technical and policy leadership, developing national institutions for training and referral, and designing and implementing program activities that can be financially sustained over the long term with national resources. Programs must avoid relying too heavily on international experts in program and strategy design, employing a large and expensive cadre of CDD-specific staff funded by the public sector, building a program based on subsidized packets that will place an unreasonable strain on national budgets when the transition to local funding takes place. Because of the pressure to meet goals there is a strong temptation to short-cut sustainability. Countries often do so, sometimes with external encouragement and funding. External donors, along with

PRITECH, have a particular responsibility to encourage countries to address sustainability issues realistically and to resist using donor resources to fund activities that detract from that goal.

8. It is unlikely that in most "PRITECH" countries national CDD program and coverage goals will be reached through the exclusive efforts of the MOH programs and resources. PRITECH needs to help countries to engage the private sector effectively.

There is a growing recognition that in many countries the public sector is the minority provider of health services. If the full benefits of ORT are to be realized other primary-care providers have to become active users and promoters of ORT. These sectors include the private medical practitioners, missionary groups, PVOs, and traditional healers and dispensers of medicine. PRITECH believes that governments --even as they strengthen public-sector coverage and performance -- need to reach out to mobilize the untapped resources of the private sector. Private-sector providers are now treating a large segment of the population. These providers need to be trained to treat diarrhea correctly with ORT. In addition to expanding program coverage, an effective private-sector strategy will also clearly enhance the chances for longer-term sustainability of this technology.

PRITECH's planned support for the private sector should not diminish or replace the public-sector effort which represents the core of PRITECH's activities.

9. PRITECH should continue to enhance the effectiveness of its modest resources through collaboration with other CDD donors. AID has an important and growing coordination role toward the multiple CDD projects it funds.

Throughout the project PRITECH has worked hard to develop close working relationships with a variety of bilateral and multilateral donors. This has enabled PRITECH and others to plan CDD activities collaboratively with the countries and multiply the effectiveness of all our limited resources. For example, UNICEF and WHO helped PRITECH establish the program in Zambia. PRITECH's technical resources have been combined with Italian program-support funds to finance the MOH's CDD communications program in Kenya. PRITECH will need to continue to maintain this close collaboration.

AID's coordination role is growing and becoming more complex. In addition to the numerous CDD projects funded centrally, regional bureaus and USAID Missions are supporting and providing additional technical and financial assistance to CDD through bilaterally funded projects. There is at present no structure in place to assure the coordination among these multiple activities, provide central technical support to bilaterally funded TA or to assure quality control. This function cannot be delegated to a contractor, although contractors can help AID to carry out this function.

B. SYSTEMS SUPPORT

1. Scopes of work for PIO/Ts should be adequately defined. USAID Missions understandably do not want to overcommit themselves to specific activities; however, without clearly defined scopes, PRITECH's efforts to meet specific needs can be more easily frustrated. Evaluation of consultancies in support of health goals is also more difficult in the absence of a clear definition of those goals. If possible, money for mission buy-ins should not be committed into the PRITECH contract prior to the development of scopes of work.

2. Evaluation of each consultant's performance on assignments, both in terms of individual consultant effectiveness and the overall contribution to larger health goals, proved to be difficult at times. PRITECH was in every case accountable for the consultant effectively completing his or her scope of work. In some cases, however, PRITECH could not be accountable for the contribution of that scope of work to greater health goals, which typically involved factors well outside of PRITECH's control. For reasons of confidentiality and a lack of quantitative measures, PRITECH did not implement a written, formalized system of consultant evaluation. Rather, PRITECH developed an informal system of evaluating consultant performance for future reference in locating appropriate consultants.

3. Systems Support provides an excellent opportunity for integration of various aspects of primary health care in developing countries. Systems Support technical assistance used in this manner is an excellent method for transferring knowledge gained and lessons learned from one primary-health-care area to another. Systems Support technical assistance was increasingly used for such integrative efforts towards the end of PRITECH I, including assignments contributing to the

Bamako Initiative; Systems Support technical assistance should continue to emphasize such integrative efforts.

C. INFORMATION CENTER AND CONFERENCES

1. The most significant lesson learned through the efforts of the Information Center during PRITECH I was that a great need for diarrheal disease information did exist, as evidenced by the increasing demand for documents, especially from USAID Missions. The growth of the TLU readership indicated that a demand for technical literature on ORT/CDD also existed. It was obvious, therefore, that if such materials were made readily available, individuals and institutions would request and utilize them. In addition, they would share the materials received with colleagues, thus contributing to increased demand.

2. The Information Center also learned that acquiring documents from developing countries was more difficult than anticipated. Because of the lack of resources and manpower of overseas information centers, these centers were only able to send a limited number of documents to PRITECH. In exchange, the PRITECH Information Center sent numerous documents to these centers in response to their requests. These information exchanges therefore became one of the Center's main channels for outreach.

3. The conference component of the PRITECH I project proved to be a valuable vehicle for disseminating information about ORT at a time when there was a large and interested audience. The conference component also provided technical expertise to conferences hosted by Ministries of Health and a variety of international organizations, and provided effective technical and logistical support for conferences hosted by AID.

SECTION III – APPENDICES

A. Country Program Reports

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APPENDIX A – COUNTRY PROGRAM REPORTS

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SAHEL REGION

BACKGROUND

PRITECH's active collaboration with ministries of health in six countries in the Sahel began in 1984-85. Targeted for assistance, because of the enthusiasm and commitment demonstrated by the MOH as well as the strong support of the USAID Missions, were Chad, The Gambia, Mali, Mauritania, Niger, and Senegal. On-going technical guidance and direction to CDD programs was provided by the Sahel Regional Office, established in Dakar in 1985. Staffed by two regional officers with access to a cadre of consultants with technical expertise in a number of areas, the Sahel Regional Office helped make CDD programs more expansive in scope through the provision of regular short-term technical assistance. In Mali and Niger, PRITECH resident program assistants were assigned to work directly with CDD program staff to help strengthen their management capacity and to manage PRITECH resources in conjunction with USAID and other donors.

DESCRIPTION OF PRITECH ACTIVITIES

In most Sahel countries, the focus of PRITECH TA was on the development of program plans and the strengthening of program- management capability, organizing and carrying out training, designing and producing educational materials, increasing access to ORS, and monitoring and evaluating the effectiveness of program activities. PRITECH contributions in those specific areas are summarized as follows:

PROGRAM PLANNING AND MANAGEMENT

PRITECH Regional Officers worked with MOH officials and CDD program staff to define CDD case-management policies. These policies generally called for the treatment of mild, short-lived cases of diarrhea and dehydration at home with SSS, and treatment of more severe cases at health facilities using ORS packets. PRITECH, in collaboration with local authorities and donors, helped programs to devise strategies and approaches to carry out case-management policies.

In an effort to devolve program-management responsibilities from central to peripheral levels, PRITECH persuaded MOH officials to support the appointment of regional coordinators and supervisors. These individuals were charged with overseeing the planning and implementation of CDD activities at regional and district levels. PRITECH helped train these coordinators, sponsored and participated in annual meetings for them, and helped them to develop regional workplans.

TRAINING

PRITECH consultants worked with national CDD programs to organize and carry out training for primary-health-care personnel. Beginning in capitals, then spreading out to the periphery, these workshops focused on training nurses and other agents at fixed health-care facilities and some extension agents such as village health workers.

Once widespread rounds of in-service training were underway, PRITECH then turned to the introduction of pre-service coverage of CDD in nursing and other training schools. PRITECH developed Intermediate Level Modules and introduced them into nursing-school curricula.

INFORMATION, EDUCATION AND COMMUNICATION (IEC)

PRITECH consultants made a series of visits to the Sahel to work on the development and production of printed materials and radio/TV spots. For the most part, these materials were designed to support face-to-face contact between health staff and mothers. Some posters, flyers, and brochures were produced to communicate messages about ORT directly to mothers. PRITECH also worked with programs to develop educational strategies that included use of popular theater and song contests.

ORS PRODUCTION AND DISTRIBUTION

With the aim of establishing a steady and sustainable supply of ORS packets in countries with large populations, PRITECH carried out feasibility studies in Mali and Senegal. (In Niger, ORS production capacity was realized with Belgian assistance.) In both countries, local production was recommended; however, only in Mali were active measures taken to actualize the potential.

PRITECH collaborated with UNICEF and UMPP, the parastatal pharmaceutical manufacturing facility, to ready the plant for eventual production.

PRITECH consultants studied the drug-distribution systems in Mali, Niger, and Senegal. These were found to be ineffective in assuring a regular supply of drugs, including ORS, to health facilities and other locations. In Niger, the only Sahel country where packets are sold, PRITECH uncovered problems related to ORS pricing policy. As a result of PRITECH recommendations, the price of ORS packets was lowered, and steps were begun to declassify ORS as a drug, enabling it to be sold in a much broader range of outlets.

PROGRAM MONITORING AND EVALUATION

To evaluate the effectiveness of CDD program activities in the Sahel, PRITECH sponsored and/or participated in program evaluations in Mali, Niger, and Senegal. In The Gambia, PRITECH carried out a KAP to determine gains made under a education project that used both mass media and extensive healthworker training. Also in The Gambia, PRITECH helped establish a community surveillance system which was designed to monitor community response to CDD initiatives. In Mali and Senegal, PRITECH carried out health- facility surveys. Finally, PRITECH consultants worked with national programs to develop supervision protocols and technical forms, and participated in routine supervision of health facilities whenever possible.

DISCUSSION

Despite the ethnic diversity within the Sahel Region, countries in which PRITECH worked had many common points: highly centralized government administration, very small commercial sectors, French-influenced educational systems, and extreme climatic and economic problems. These similarities enabled PRITECH to develop approaches to national ORT programs in much the same manner. Cross-fertilization occurred. Lessons learned from initiatives undertaken in one country were applied to others. And when it was necessary to take into consideration country-specific characteristics, PRITECH demonstrated flexibility and ingenuity in devising workable implementation arrangements.

The coordination of activities within and among the Sahel countries could not have been accomplished without a PRITECH regional presence. Representatives from the Sahel Regional Office, either full-time staff or consultants, provided regular and often on-going technical guidance and support. Good working relationships were established with not only ministries of health but other governmental departments as well. PRITECH consultants, viewed as competent, credible, and reliable, were well received and well accepted.

Resident program assistants, who were also well accepted by their co-workers, ministry officials, and others, were fully integrated into CDD-program staffs. Not only did they make major contributions to the organization, administration, and implementation of program activities, but their active involvement allowed the PRITECH Regional Office, PRITECH/Washington, USAID, and others interested in CDD programs to be kept up-to-date on the evolution of activities. Because they were intimately familiar with day-to-day implementation successes or constraints, they were able to communicate this information to PRITECH management and others. Thus, active and timely efforts could be made to resolve problem areas.

PRITECH also collaborated closely with WHO, UNICEF, the World Bank, and other donors to design and implement CDD/ORT strategies and approaches. In the Sahel, this collaboration was especially important to the planning and implementation of training activities and the development of educational materials. This close collaboration helped to strengthen PRITECH's influence with government health officials, and also helped to leverage its modest resources.

In the training workshops, organized and carried out with PRITECH assistance, much emphasis was placed on the theory of diarrheal disease management; few opportunities were provided for practical application of the theory. Assumptions were also made that most health staff had a thorough understanding of the physiopathology of diarrheal disease so that area, if covered at all, received only a cursory overview. Yet another weakness of training was the lack of attention given to the development of plans for systematic follow-up and supervision of those who had received training.

As for educational materials, many were developed without the benefit of extensive focus-group field-testing. It was later discovered that, in some cases, these materials were ineffective in getting

messages across to mothers. Furthermore, health staff were not really trained in how to use these materials effectively, to encourage interaction with mothers. Systematic distribution of educational materials presented yet another problem. Few efforts were made to ensure that educational materials, once sent out from the capital, actually reached their intended destinations.

On the more positive side, major steps were made towards the institutionalization of CDD training. PRITECH recognized the importance of providing pre-service training to nursing students as well as to students in schools of hygiene and community development. The introduction of the PRITECH Intermediate Level Modules, both in French and Arabic, into the curricula at these schools was a significant accomplishment.

PRITECH's support of decentralized CDD responsibilities was also an important contribution to a major shift in governmental policy. Decentralization of CDD responsibilities was not always easy. In many cases, those responsible for CDD were also charged with overseeing the implementation of other PHC activities, and thus were often too overburdened to pay sufficient attention to CDD. Nonetheless, the idea of decentralization generated very little resistance at the national level, perhaps because of the recognition that human and financial resources at the national level were simply inadequate for national-level follow-up to be made.

LESSONS LEARNED

- Countries in the Sahel have weak primary-health-care infrastructures. The reach of the public health-care system is extremely limited; in Niger, for instance, coverage is about 15%, in Mali, approximately 22%. Thus, by working within the public health-care system only, PRITECH cannot expect to reach large segments of the population, including those populations most vulnerable to diarrheal disease.

- It was important to have strong government commitment to CDD from the beginning. This commitment, which manifested itself in the selection and support of competent CDD program managers and other staff members and the ready acceptance of PRITECH technical assistance, was necessary in order for CDD programs to evolve and progress. In Senegal, the one country in the Sahel where government commitment seemed less than enthusiastic, PRITECH

was only able to offer ad hoc assistance. A full-time coordinator was never assigned to the program. Consequently, CDD-program activities were limited in scope, and carried out in a rather unsystematic, piecemeal manner.

- The placement of resident program assistants with the national CDD programs of Mali and Niger was very beneficial to program implementation. The fact that they were "generalists" rather than technical experts enabled them to take a much broader view of the program than would have been likely for persons whose focus may have been more narrow. Their closeness to the national program not only created a positive PRITECH presence in the eyes of the MOH, other governmental departments, USAID, and other donors, but allowed them both to determine needs and articulate needs to the Regional Office which then was able to provide appropriate assistance.

- An on-going PRITECH regional presence also proved important in the provision of appropriate technical assistance as well as the monitoring and follow-up of national CDD programs. By grouping countries with similar concerns, common strategies, methodologies, common materials were developed. Technical consultants gained regional expertise, and were thus able to apply lessons learned from one country to others.

- The iterative use of consultants from the Sahel Regional Office was well accepted by MOHs. Good working relationships were established which allowed both consultants and regional staff officers easy access to ministry officials, USAID Missions, donors, and others. This was particularly important in places like Niger, where reticence towards outsiders is often demonstrated.

PRITECH's policy of presenting itself as a partner of WHO and UNICEF in a single ORT initiative greatly enhanced its promotional efforts. Specific program design and implementation arrangements, which reflected this approach of integrating PRITECH inputs with those of other donors, greatly facilitated acceptance and utilization of PRITECH assistance.

- Widespread training of health staff during the initial phases of PRITECH involvement with national CDD programs was effective in spreading the word about ORT. However, training was often of poor quality and short duration. During training-of-trainers workshops, technical skills as well as training skills were taught simultaneously. Those who were trained were then expected to be proficient in their presentation of technical information to lower-level health staff. Not only that, but training rarely included hands-on practical demonstrations. Furthermore, continued supervision of those who had received training was not planned for, nor was supervision carried out in any type of systematic manner, if at all.

- Health staff were not properly trained in health education. They were not taught how to use educational materials effectively nor were they taught how to interact with mothers effectively. Health workers need to be more directly involved in the development of educational materials, and they need to be instructed on how to use these materials effectively. Health staff would benefit from the use of easily understandable technical guides, like counseling cards or reminders designed to point out simple technical information.

- It was also assumed that health staff had a good understanding of the physiopathology of diarrhea disease. Their continued inappropriate use or prescription of anti-diarrheals, often given along with advice on ORT, suggests a lack of understanding of the ill effects of anti-diarrheals. During pre-service and continuing education of health staff, a review of the physiological aspects of diarrheal disease, and the effects of drugs as well as ORT on the system would be beneficial.

- The decision to delay the setting-up of oral rehydration units in hospitals was probably a good one. Hospitals in the Sahel have demonstrated a great deal of resistance to re-organization on any level. It is unlikely that they would have taken active measures to establish units in their facilities. Furthermore, it has been observed that hospitals in the Sahel do not treat large out-patient populations anyway, unless no other health facilities are available in the area. Children suffering from diarrheal disease and its complications are more likely to be taken to maternal/child health centers. These facilities would be more

suitable sites for ORUs. Nonetheless, possibilities of setting up ORUs in some hospitals should still be explored.

- Not enough attention was paid to diarrhea-related nutrition issues. Greater efforts could have been made to help governments define policies that would address this area. Educational messages could have included more information about the nutritional management of diarrhea. Training for health workers could have included more information about this topic as well.

- Drug monitoring and distribution systems are poorly developed in the Sahel. Linking distribution of ORS packets with inefficient systems has resulted in stockpiling of packets in some locations and stock-outs in others. Also, with the exception of Niger where packets are sold in pharmacies, ORS packets have been made available only through the public health sector, which, as has already been noted, is limited in its reach. Efforts must be made to increase access to ORS packets through the commercial sector, schools, and other locations.

- In general, these countries have had difficulty in developing and executing plans and activities at regional and district levels. There was little experience in decentralization of public-health program planning. While PRITECH was successful in convincing central governments of the importance of organizing and carrying out regional activities, follow-through of the plans for individual regions was often dependent upon the motivation and initiative of those responsible for overseeing CDD activities, not to mention the availability of resources and funding.

- In order for CDD programs to be sustained in the Sahel, the following conditions will have to be in place:

1) a competent national program manager working with a program team and supportive committee;

2) on-going source(s) of funding for implementation of supervision and follow-up in the areas of training, IEC, ORS production and distribution, etc.;

3) a clear picture of the prevalence of persistent diarrhea in the Sahel so that appropriate case-management approaches can be developed and taught to health workers and others;

4) strategies for linking CDD with other interventions, such as breastfeeding, nutrition, prevention, etc.

BOLIVIA

BACKGROUND

In August 1985, PRITECH initiated activities in Bolivia. The PRITECH mandate was to provide technical assistance to a nationwide child-survival education project to be implemented by a national PVO -- Caritas Boliviana. The joint AID Washington and USAID/La Paz project has had the principal goal of reducing infant and child mortality by introducing Oral Rehydration Therapy and Child Growth Monitoring (CGM) to the members of 1,800 rural mothers' clubs.

The PRITECH team in Bolivia fulfilled all technical-assistance commitments to Caritas Boliviana and assumed additional implementation and funding responsibilities. In the final year of the project, PRITECH expanded activities by providing TA support to a variety of USAID-funded international PVOs with CS projects.

The following is an overview of PRITECH and project activities from August 1985-September 1988.

PLANNING

The PRITECH planning effort began in Bolivia at a time when the MOH was beset by strikes in a time of several inflation, and was unable to use technical assistance well. Accordingly, the then Chief of Health and Human Resources for USAID/La Paz made the decision to look for an alternative to the MOH. Caritas Boliviana was identified as the most appropriate institution for a national project due to its highly developed rural infrastructure of mothers' clubs and its longstanding relationship with USAID through the Title II commodities program. USAID support to Caritas for local costs was channeled through CRS, which also provided some oversight to the program.

The actual work plans for the project were not formulated until March 1986, when Caritas hired a National Coordinator and a Social Communicator. PRITECH and the new Caritas staff developed an implementation plan for the country which was designed to be executed over a 3-year period in three distinct language regions.

ORGANIZATION AND MANAGEMENT

The organization of the PRITECH office evolved as the project developed and TA support expanded. It was decided initially that the PRITECH staff should work out of the Caritas national office in La Paz. As a counterpart institution, PRITECH needed to work closely with Caritas and be readily accessible. The proximity of the two institutions facilitated communication and a direct problem-solving approach. Given the enormous task of providing TA to a national health-education project, the PRITECH management style was designed to do whatever was necessary to meet commitments and push the project along within the limitations of a counterpart role.

In the beginning, PRITECH staff consisted of a Country Representative and a Technical Advisor. Bolivians with the necessary technical skills were identified and hired as needed. These included a sociologist, a statistician, a radio specialist, a focus-group expert, an Aymara communications expert, several artists, etc. When field training commenced in Year I, two Aymara-speaking auxiliary nurses were hired to attend training courses and support the diocesan teams. The same was done in Year II as two Quechua-speaking auxiliary nurses were added to the staff. Between training courses, the four nurses made supervisory visits to mothers' clubs with diocesan personnel.

In October 1987, a professional educator/communicator was added to the permanent staff.

SCOPE OF WORK

The PRITECH technical assistance support to the CS project as planned and implemented consisted primarily of developing educational and training materials, training components, complementary radio programs, information systems, and some operational research.

RESULTS

The majority of the time and resources for the Bolivia project were expended in the training-education process. Complete documentation of how educational materials and training courses were developed and implemented in the three CS interventions has been produced.

Training of Trainers -- Caritas Diocesan Personnel
in ORT, CGM, Nutrition

YEAR I-1986/87	Supervisors	Field Coordinators
Caritas La Paz	1	4
Caritas Coro Coro	1	4
Caritas Oruro	1	4
Caritas Coroico	1	2
YEAR II-1987/88		
Caritas Cochabamba	1	4
Caritas Aiquile	1	2
Caritas Sucre	1	6
Caritas Potosi	1	3

In both the Aymara- and Quechua-speaking areas (Year I & II) training in ORT, CGM, and nutrition was conducted on three levels. First, the diocesan supervisors and field coordinators participated in five training-of-trainers courses. The courses included instruction in ORT, CGM, and nutrition concepts and practices in addition to training methods and field practice.

Each diocesan office was programmed to manage approximately 200 rural mothers' clubs, or a ratio of one field coordinator to every 50 clubs, although this varied considerably from office to office. The field coordinators were responsible for health-promotor training and supervision in their respective areas of coverage. Each mothers' club chose a representative for health-promotor training.

In Year I, the health promoters attended three training courses -- one for each of the CS interventions. In Year II, the promoters attended training courses in ORT and nutrition but have not yet finished the third course in CGM. The CGM courses were initiated in July 1988 but have not been completed due to a conflict between Caritas Boliviana and the funding source for field training -- PL 480. Caritas Sucre temporarily withdrew from the project after the second round of training but reportedly has hired new staff and is resuming activities.

Training of Trainers -- Mothers' Club Health Promoters

YEAR I	No. of Courses/No. of Prom. Trained		
	ORT	CGM	NUTRITION
Caritas La Paz	10/182	9/170	8/161
Caritas Coro Coro	34	8/180	7/170
Caritas Oruro	11/220	9/175	8/181
Caritas Coroico	7/159	5/163	5/130

YEAR II

Caritas Cochabamba	9/214		9/182
Caritas Aiquile	6/101		4/94
Caritas Sucre	6/167		8/158
Caritas Potosi	7/146		7/140
TOTALS	63/1423	31/688	56/1216

The final and most important level of training occurred at the village level. Each health promotor received a variety of educational materials for use with mothers'-club members. All materials became property of the mothers' clubs including Salter scales and measuring tapes. Instruction of mothers'-club members was complemented with educational radio programs broadcast on a daily basis.

ORS DISTRIBUTION

The Bolivian MOH initiated the importation of ORS packets donated by UNICEF in 1984. The importation figures since then are the following:

	ORS UNITS	DONATED BY:
1984	400,000	UNICEF
1985	1,449,185	UNICEF
1986	332,000	UNICEF
1987	517,000	UNICEF
1988	1,000,000	USAID
TOTAL	3,748,185	

The final lot of ORS packets donated by UNICEF are those of 1987. The 1,000,000 units that have arrived in 1988 were donated by USAID/La Paz with the provision that 25% go to the Caritas Boliviana CS project. The packet continues to be the standard UNICEF cover to avoid beneficiary

confusion. Another 3,000,000 units arrived during 1988 with the same ratio of 75% to the MOH and 25% to Caritas Boliviana.

Caritas Boliviana has successfully distributed ORS packets through its existing food-distribution system to mothers' clubs. The advantage is that mothers'-club representatives pick up food rations every one-two months from the diocesan offices. It is simple to include ORS packets in the distribution of large quantities of donated commodities to a mothers' club.

LESSONS LEARNED

- Avoid excessive ratios between supervisors and promoters. In Bolivia that ratio was 50 to 1 on the average, which was too high.

- When working with church dioceses, proceed diocese by diocese, and do not assume that a national office can make diocesan commitments. A critical sustainability factor is the commitment of the dioceses to employing the supervisory staff. This means a financial commitment. Without this accord, the training gets no follow-up and the effort lasts only as long as PRITECH funds.

- Be clear at the start about who will handle the funds. Caritas assumed that the PRITECH funds would be channeled through them, and never accepted PRITECH as the funding channel.

- The coordination of three funding sources -- USAID, S&T/H, and PL 480 -- was unwieldy at best. Caritas had accounting troubles with PL 480 that interrupted project activities at times.

- Travel to the field whenever possible gave PRITECH core staff a solid grounding in the situation of the rural mothers' clubs.

- Be aware of what a project of this kind implies for an organization like Caritas. The mothers' clubs had never been service-oriented; they had simply been organized to receive

food. Caritas had no commitment to provision of services, and it may have been unrealistic to think that Caritas would make the institutional shifts necessary to do so. In the event, this did not occur. The longstanding food-distribution history of Caritas militates against its prompt and full-hearted adoption of development strategies.

BUDGET

USAID	CRS	PL 480	TOTAL
$ 410,000	$736,000	$392,000	$1,538,000

CAMEROON

INTRODUCTION

PRITECH's involvement in the Cameroon National CDD Program dates from October, 1986 when a PRITECH assessment team visited Cameroon to determine the potential for PRITECH support to the local CDD effort. The actual launching of the program dates from early April, 1987 when over 100 participants from four ministries and ten international agencies developed national program guidelines during the "CAMCORT" conference. Since then, the full-time local PRITECH representative and short-term consultants have assisted the MOH program team in the development of a broad national CDD program effort, including development of national policies and strategies, setting up of regional DTUs, training of physicians and nurses, development of ORS distribution and tracking mechanisms, development of a national CDD communications strategy and of educational materials, and training of regional personnel to implement and manage various components of the program.

Characteristics of the Cameroon CDD Program

The CDD program in Cameroon has a number of characteristics which make it different from many other CDD programs in Africa and elsewhere:

- The program has made do with very limited personnel and financial resources: only two part-time (though highly competent and dedicated) managers have been assigned to the program by the MOH; UNICEF, WHO, and USAID have contributed only very limited funds (not more than $500,000 total including the costs for the PRITECH rep) to the program over the last three years and the MOH budget has been under $10,000.

- These severely restricted resources have been partly offset by a systematic and active promotion of a very broad-based collaboration between CDD and other departments of the MOH (Health Education, Nutrition, Community Medicine), other ministries (Women's Affairs, Information-Radio and T.V., Agriculture) and numerous donors and non-governmental groups (the Church-run health services, German foreign assistance, UNICEF, Save the Children, CARE, the Peace Corps, WHO, the USAID bilateral child-survival project, etc.). Each of these

various CDD "partners" have at one time of another contributed personnel or funds to CDD activities.

- The scope of the program is national, with simultaneous implementation of all the main CDD program components. Although initial emphasis was placed on personnel training and although education of mothers has not until recently become a primary activity, the strict WHO- proposed sequencing of activities was not adhered to rigorously. This fact reflects, in part, the timing of resource availability for key program components as well as a conscious choice on the part of Cameroonian MOH officials.

- Each step of the program has been preceded by a relatively lengthy period of planning, analysis, consensus seeking, and adaptation of existing materials and guidelines to Cameroonian needs and priorities. For example, training of health workers was widely implemented only after a central team of trainers received special training in training methodologies and techniques. Training materials, while adapted from existing WHO and other sources, are only now being finalized after testing. National efforts to educate mothers were preceded by extensive socio-cultural research and in-depth planning of a comprehensive communications strategy and plan, developed over many months on the basis of CAMCORT recommendations and careful review of program options and resources.

- While management of the program has been heavily dependent on central decisions concerning policy and resource allocation, there has been a growing and concerted effort to increase responsibilities of regional MOH personnel for the management and implementation of specific program activities. For example, training of health personnel is coordinated and executed by regional trainers at provincial DTUs. The face-to-face and radio communications activities are planned and implemented by regional health, radio, and education personnel. This strategy is not without problems of follow-up and quality control but does allow for adaptation of national strategies to local needs and realities, as well as relieving some of the burden of the limited national staff.

DISCUSSION

The Cameroon program is developing slowly but steadily. It has benefitted from consistent, strong support from both the Ministry of Health and the local USAID Mission. What was aimed for and what is being achieved is the implementation of a technically sound, operationally solid, and sustainable improvement in the diarrhea case-management practices of health personnel and families with small children. The spread of improved practices is occurring district by district in all ten provinces of the country. The numbers of trained health personnel and educated mothers are increasing slowly but systematically. It is hoped and believed that when the numbers become impressive, the behavioral changes will have a depth which will make them lasting.

The emphasis on depth rather than breadth of coverage came about, in part, due to the convictions of the Cameroon National Program Director, convictions shared by his PRITECH advisor. It was also due, however, to the constraints imposed by the limitations of human and material resources. There exists a constant and recognized tension between, on the one hand, the need to produce results which will motivate donors and local government decision makers to continue their support of the program and, on the other hand, the sometimes conflicting need to ensure that those results are based on a solid ground so that shifts in local priorities and conditions will not wipe out all or most previous gains. The Cameroon CDD program is under increasing pressure to demonstrate the benefits of its slow, careful strategy.

LESSONS LEARNED

Many technical and programmatic lessons have been derived from the Cameroon program. The most striking and interesting programmatic lesson is the value of systematic development of a broad-based, multi-sectoral collaboration, especially in the case of a resource-poor program. Establishing and maintaining an active collaboration with organizations which have only a peripheral interest in one's program requires constant attention and active pursuit of the intended partners. However, this input pays dividends not only in the broadening of the resource base for program implementation, but also in the commitment and consensus it generates, thereby lessening opposition to key program strategies.

Another lesson is that it is not possible to manage even a modest new technical program with only part-time staff. The resident PRITECH advisor often was forced to play the role of the de facto program manager when her Cameroon colleagues were not available. The Cameroonian Ministry of Health is committed to "integrated primary health care." This was one of the prime reasons for the failure to assign full-time staff to the CDD Program. However, at the start of such a new effort, verticality at the top may be the price one has to pay for effective integration at the service- delivery level.

Technical lessons include, among others, the importance of the training of trainers in the area of pedagogical as well as technical skills -- such training undoubtedly enhances the overall effectiveness of technical training activities; the importance of specific practical training in the area of educating mothers as part of CDD case-management training for health personnel; the diversity of mothers' beliefs and practices in the face of diarrheal illnesses and, therefore, the need to adapt national strategies to regional or sub-regional cultural realities; the difficulties of improving ORS distribution in a basically flawed drug-distribution system; the usefulness of training nurses and physicians jointly to ensure that improved case-management practices at one level of the health hierarchy are not undercut by those at another level.

INCAP

BACKGROUND

The PRITECH involvement with INCAP (the Nutrition Institute for Central America and Panama) has been in the context of a ROCAP/INCAP project called "Oral Rehydration Therapy: Growth Monitoring and Education". To achieve its goals of lowered infant mortality and of a reduction in severe malnutrition in Central America and Panama, the project sought to increase effective use of oral rehydration therapy, growth monitoring, and appropriate related feeding practices. Specifically, the project supported activities in the following areas:

- promotion of effective national strategies and plans;
- strengthening health-service delivery and management-information systems;
- improvement of professional, paraprofessional, and community-worker skills and public education;
- increasing the availability of scientific and technical information; and,
- increasing the availability and improving the distribution of ORS.

Within this project, PRITECH's original role was to provide external technical assistance -- a long-term resident who would be a physician with experience in research, case-management, ORT, growth monitoring, and health and nutrition education, and twelve months of highly specialized U.S. or international short-term consultants.

The long-term resident physician had been nominated and was eagerly awaited by INCAP, because this candidate had strong technical credentials and an outstanding professional track record in several CDD programs. When, therefore, it turned out that this particular person was not available, INCAP's disappointment was such that the long-term resident position was dropped entirely, and PRITECH's role was confined to short-term technical assistance. What had been envisioned as twelve months then ballooned by the end of November 1988 to more than 33 person-months of technical assistance carried out in 71 separate consultancies.

A basic tension existed in the project from the start, between the need for institution building, especially management capacity, within INCAP and the need for INCAP to do quality technical work. The long-term physician was expected to contribute to both, ideally making this basic tension a creative tension. Whether that would have been the case, we don't know. We do know that the need for strong management in this multidisciplinary, multinational project was critical and that, as the technical assistance began to flow, communication, focus, and accountability struggled unsuccessfully to keep pace.

A 1986 evaluation of the project presented a picture of considerable activity in need of greater focus. In their section on the status of project planning, management, and administration, the evaluators wrote:

> The team found that accomplishments, to date, are certainly notable in terms of quantity. Plans and reports enumerate large numbers of activities in great detail. Research instruments have been used to collect great quantities of data. Study reports present pages and pages of tables. Comprehensiveness appears to have been a guiding principle with respect to data collection and documentation efforts....
>
> The team found that a remarkable degree of operating responsibility and authority has been delegated to project staff. Components and projects within components have their own budgets. Thus, about a dozen staff members can order the expenditure of project funds. Relatively few resources, in terms of personnel time, are invested in formally coordinating the work and expenditures of the staff. Project staff meetings to discuss objectives, determine priorities, review work-plan progress, assess budgetary status and, in general, coordinate project activities are held very infrequently. Delegation in a project such as this one requires management systems to insure coordination among the operationally independent but conceptually interdependent components.

RESULTS

There was no real scope of work for PRITECH, no clearly stated job description. PRITECH had become a ready conduit for technical assistance, and an able assistant to ROCAP in that PRITECH

located, fielded, and funded consultants efficiently. PRITECH also identified a Project Coordinator for INCAP, an expatriate who turned out to be an excellent manager and who improved the guidance and oversight available to consultants. The role this coordinator played had been handled de facto by PRITECH from Washington earlier, an unsatisfactory arrangement but necessitated by the burden such coordination imposed on existing INCAP and ROCAP staff. So, the identification of this coordinator was a positive and concrete contribution by PRITECH -- though not one that was part of the original plan.

What all the PRITECH TA did was raise INCAP's profile in the region, but we are unable to associate this technical assistance with improvements on project indicators. PRITECH also did strengthen the information functions at INCAP, while other AID support allowed INCAP to put out a Spanish translation of Dialogue on Diarrhea.

The total PRITECH I cost: $300,000.

LESSONS LEARNED

For PRITECH, the INCAP involvement was an anomaly. Most PRITECH interventions deal through Ministries or other direct health-service providers. But INCAP is not like that. INCAP has no clinics; its responsibilities as a health-care provider or an improver of other health-care providers are not clear. As a result, PRITECH's role was not clear -- other than as a source of technical assistance. So, because its counterpart institution was not a direct health-care provider, PRITECH was one step away from the operational level, where PRITECH's principal mandate lies.

When the long-term PRITECH technical consultant became unavailable, there may have been some merit in re-examining this entire proposition, at least as far as PRITECH was concerned. Without a resident representative on the ground, PRITECH was now a second step away from provision of health services. And PRITECH, from Washington, could only do what it did -- provide short-term technical assistance.

So, the situation was ill-defined, lightly managed, and radically different from the original plan. Within this situation, PRITECH/Washington tried to shore up some of the project's most obvious

needs. Foremost was the effort to urge the project to develop its own workplan and its own plan for technical assistance. Both eventually did evolve. Second was the placing of the expatriate project coordinator. This was perhaps PRITECH's most concrete contribution to INCAP, and has lent some coherence and continuity to the technical-assistance process.

The most salient conclusion is simply that INCAP was not the appropriate vehicle for a PRITECH disease-control intervention. Although PRITECH has contributed mightily to the INCAP/ROCAP project, these contributions did not add up to a disease-control intervention because the INCAP work had little input into CDD programs in the region and might more appropriately have been done under the Systems Support component of PRITECH, which goes much beyond CDD and offers inputs only. Systems Support is what PRITECH de facto provided to INCAP -- a series of inputs the outputs of which were beyond PRITECH's accountability.

While support to INCAP as an institution is a worthy goal for a donor, our conclusion is that the PRITECH project was not designed with such goals in mind. But, because PRITECH was in place and provided a handy mechanism, and despite INCAP's differences from PRITECH's usual counterpart institutions and despite the falling-through of the long-term PRITECH physician, and because of AID's priorities for INCAP, PRITECH was urged by AID to provide this support. While INCAP and PRITECH have maintained, and indeed strengthened, professional and personal linkages during this experience, the kinds of needs INCAP has do not fit well with the kinds of resources PRITECH offers. We know that a lot of work was done, but we do not know the results of these inputs, and is it not likely that INCAP will be able to measure and document the PRITECH role of the last few years.

INDIA

In September 1985, AID/W approved the PRITECH intervention plan for India. This plan states that PRITECH assistance to USAID/New Delhi would be confined to inputs only, comprising one long-term senior health advisor for 22 months and one long-term public-health advisor initially for 13 months. The public-health advisor, Mr. John Rogosch, commenced August 1, 1985 followed by the senior health advisor, Dr. Jon Rohde, in January 1986. The PRITECH/India office was functional by September 1985.

The PRITECH scope of work stated:

> "As requested by USAID/New Delhi PRITECH is prepared to provide long-term technical assistance to guide and support the states, GOI, and USAID/New Delhi in design, implementation and evaluation of programs leading to widespread adoption of ORT, measles immunization, and birth spacing/family planning in Maharashtra, Gujarat, and Himachal-Pradesh. Based on successful achievement of this objective in project districts, PRITECH will support development of plans for the state-wide implementation in a new follow-on IRHP [Integrated Rural Health and Population] project sometime in FY 1987. In addition, an equally important activity will be the provision of general TA to GOI, state, and district officials for a variety of USAID-supported health and nutrition initiatives, for implementation of existing projects as well as formulation of recommendations to correct noted deficiencies and the development of new projects. Because PRITECH's contribution will be technical advice in the context of USAID's bilateral health projects, the PRITECH effort will be evaluated in terms of the quality and timeliness of technical advice and recommendations to the GOI, the state-level officials, and USAID staff."

The agreement specified that AID/W should transfer India-specific PRITECH project-monitoring activities and responsibilities to USAID/New Delhi.

PROGRAM ACTIVITIES

Initially, the immediate objective of PRITECH's involvement in India was primarily to assist three IRHP states (Maharashtra, Gujarat, Himachal Pradesh) to plan, effectively implement, monitor, and

assess the progress of their ORT and EPI programs (including introduction of measles vaccine) in eight project districts. A longer-term objective was to assist the India USAID Mission in identifying the elements and approaches of the states' child- survival activities to form the basis for the follow-on (IRHP - II) project providing program support on a statewide basis. Therefore, the experiences gained in developing ORT and EPI programs in project districts would be of direct relevance to later statewide programs. PRITECH staff not only supported and strengthened district activities, but also identified state-level technical needs and systems required to expand these activities throughout the state. The PRITECH mandate in India was also to support other USAID Mission health and nutrition projects, but initially the major attention was to be given to IRHP. December 31, 1986 marked the end of the six-year IRHP and this also saw the end of much of PRITECH's mandated state-level activity. In December 1986, USAID/New Delhi expressed their satisfaction with the PRITECH assistance up to that point; the same month the Mission revised the scopes of work of the PRITECH resident staff to "extend PRITECH's role in order to operationalize the Mission's strategy and to provide the technical assistance that will be needed to support national programs and the specific activities within child-survival projects, and other independent child-survival initiatives." The Mission also requested at this time that the two positions be extended through December 31, 1987. However, in March 1987 the public-health advisor John Rogosch accepted an appointment with AID and the Mission decided to delay his replacement pending completion of child-survival-project discussions with the GOI.

Dr. Jon Rohde, Senior Technical Advisor, continued PRITECH assistance in India; his main activities and achievements are described below.

CHILD SURVIVAL PROJECT

The Child Survival PID was approved in late April, 1987, and then the development of a detailed Project Paper and supporting documentation for the $65 million Child Survival Project were carried out in May and June. PRITECH staff contributed to the technical design of the paper, including the National Immunization Program; the National ORT Program; state-level activities in training, communications, information systems, innovative programs and research; technical analysis and justification; and the overall project-implementation plan. Particular attention was paid to an "Indian Congress of ORT" and a related proposal for research projects in diarrheal disease. The

final Project Paper was approved in Washington in late July and PRITECH helped with negotiated modifications to the agreement, initial workplans, and specific negotiations regarding planning and disbursement of monies against specific project activities, both at national and state level.

CDD

The PRITECH Senior Technical Advisor (STA) assisted in the planning and implementation of the Indian Medical Association's effort to retrain its membership in the modern management of diarrheal disease, focusing on correct use of ORT. The STA worked on the development of standardized 2 1/2 day curriculum for four clinical ORT training centers. During the second quarter of 1987 these centers were put into operation and trained some 150 IMA members who became certified as trainers in the national program. A video cassette was prepared along with an instructor's manual and various resource materials, enabling a standardized three-hour course to be conducted at IMA branches throughout the country. Motivation of branches through the IMA newsletter and its journal, as well as through the state IMA structure, resulted in some 250 branch meetings with over 8,000 members participating throughout the second half of 1987. The enthusiastic attendance at these meetings and their impact on knowledge about treatment of diarrhea were verified through the administration of a pretest, a post-test, and an evaluation. The IMA sponsored a Child Survival Week in 1987, which featured the theme of "Oral rehydration for every child with diarrhea."

A second major PRITECH contribution to the diarrhea program in India was the extensive work with the Indian Marketing Research Bureau (IMRB): first in its design and field execution of the national survey of knowledge, attitudes, and practices by mothers about diarrhea; and then in the analysis of this extensive data set, and the preparation of reports and presentations to donor agencies, to government, to parliamentarians, and for publications in the lay and scientific literature. Through this project, IMRB has developed a staff capable of understanding many of the critical issues related to questionnaire design in diarrheal disease, to field investigation, and to the interpretation of the results. A 16-volume report gave a KAP profile of mothers, medical practitioners, paramedical workers, and chemists in each of 16 states throughout the country. A large quantitative survey of 5,400 mothers in 440 villages throughout the country provided the baseline data upon which to redesign the national CDD program and to develop a comprehensive

communication strategy that will reach into the most remote rural areas, carrying a believable and practical message on proper fluids, feeding, and referral during diarrheal illness. Not only the institutional development of IMRB but also the output of this work was an important asset to the overall CDD program in India.

The PRITECH STA worked on the development of improved training materials for CDD. This involved preparation of a training video for the IMA, based on extensive field taping of clinical encounters, editing of this material, and script writing. The result has been a major educational video comprising 22 modules on clinical diarrheal disease and the role of rehydration and feeding. This video was paid for and produced by UNICEF with technical direction and guidance from the STA.

Finally, the STA prepared an extensive revision of the manual "Better Care in Diarrhea", drawing upon insights gained from the IMRB surveys. This booklet is intended to become the standard training tool at all levels of the country, is being translated into 15 languages, and will be published in three to five million copies.

The STA's work under USAID direction has included interactions with CARE and its planning for field programs, particularly with respect to expanding CARE's ORT training as well as evaluating its past activities using the two-ended plastic spoon and cup. With CRS, Dr. Rohde helped them focus on the importance of standardized training for mothers participating in their programs. He also spoke with various voluntary groups on the important rule that ORT can offer to their field activities. In addition, the STA gave talks to the Catholic Hospital Association of India, Christian Medical Association of India, and the Voluntary Health Association of India on the specific aspects of ORT and CDD.

EPI/UIP

The STA's most important contributions to this program related to strategies for urban immunization, involvement of Rotary, development of an information system for universal immunization program (UIP) planning, and assistance to IMRB in the planning, implementation and interpretation of a national EPI/KAP study.

1987 saw the in-depth evaluation of four UIP districts with comprehensive management as well as coverage surveys conducted by an independent team headed by Dr. Sokhey with participation by WHO and UNICEF. The STA assisted WHO and UNICEF colleagues in identifying areas of investigation and interpreting their findings. The increasing implementation of coverage surveys has enabled the Ministry of Health to make a more realistic assessment of vaccine use and of the management challenges in carrying out this major program. No other program in Indian history has ever reached the percent of population now being covered in UIP districts -- sustained coverage of 65%.

In late 1986, the STA was asked to be a guest editor of the Indian Journal of Pediatrics preparing a special supplementary issue on growth monitoring. Some 18 articles were handed over to the editors in late May with publication later in the year.

Through regular meetings with CARE and CRS as well as other members of the growth-monitoring task force, the STA was able to help identify operational weaknesses in existing programs and attempt to help these agencies embark upon a new course in their nutrition programs, focusing on behavioral change and effective child growth as primary outcomes.

In June 1988, the PRITECH intervention concluded with the PRITECH senior technical advisor moving to UNICEF. The PRITECH office was closed in September and the remaining funds used for short-term technical assistance.

INDONESIA

From November 1983 to December 1985, PRITECH provided USAID/Indonesia with 14 consultants for a total of more than 20 months of technical assistance, mainly for design of two project activities approved in 1986. Technical assistance (TA) for development of the manpower planning project activities for the MOH was financed through PRITECH's System Support authority. Beginning in 1984, MSH helped design manpower planning and information systems for the health and family planning organizations; this involvement with MOH management functions would continue and become important in PRITECH II when the CDD unit's functions needed redefinition.

TA for development of a program strategy for the national diarrheal disease control (CDD) program was financed through PRITECH's Disease Control authority. Subsequently, a Disease Control country program was approved for additional technical assistance, approximately 28 months at an estimated cost of $400,000.

Traditionally, Indonesia's government programs have been highly centralized, with funds tightly controlled by Ministries in Jakarta. Because of the diversity of the country and the large population, there has been encouragement from A.I.D. and other donors to decentralize program responsibilities to the Provinces. In November 1985, a PRITECH assessment team recommended that the national CDD program be assisted with program planning and management at both national and provincial levels, beginning with a comprehensive program in West Java. Mass media program activities for West Java were already being planned by the HEALTHCOM project, based on a strategy developed by AED in October 1984 on a PRITECH Disease Control assignment. Infant mortality in West Java was estimated to be 130 per 1000, reaching 180 in some areas.

The USAID accepted the team's technical observations and recommendations, but was not satisfied with the analysis and recommendations for management of the program. The team had focussed on the limitations of the CDD unit, a sub-Directorate buried in the bureaucracy with weak leadership and inexperienced staff. A large portion of the analysis and several important recommendations were directed at these management problems, because they were judged to be the most important obstacle to program implementation. At the team's debriefing, the USAID/HNP Office expressed concern about lack of coordination within the Ministry. PRITECH felt the overall

MOH coordination issue was beyond the scope of the team's three week assessment of the CDD program; the Mission felt the team had overlooked a key issue. As a result the PRITECH team's report was revised, by February 1986, but never issued in final. Instead, the USAID developed their own document.

The USAID Mission organized a resident technical assistance team to work with the national and West Java CDD programs. The team leader was a senior advisor from the U.S. Center for Disease Control, who had long experience in Indonesia assisting the EPI program. The five person team included a half-time PRITECH logistics expert, Jim Bates, and a Healthcom communications expert.

The team developed a project proposal for a two-year Phase I effort, from July 1986 to July 1988. The proposed activities were: (1) Management activities, including the development of a Secretariat for Integration, a practical MIS, improved central office work plans, and training/supervision in the Intensification Area (West Java). (2) Logistics activities, including in-depth assessments, training, development of an MIS, and research. (3) West Java Intensification Area: clinical training, and improvement in curricula in three professional institutions. (4) Disease Information System activities: the development of surveillance data tools, operational studies, training, and research into outbreak investigations. (5) Communications activities, including a national ORT conference, a newsletter, design/production/distribution of materials, formative research, development of radio and television messages, development studies, and feasibility studies. (6) Monitoring and evaluation activities, including use of indicators, summary assessments, and comprehensive program reviews. PRITECH's Jim Bates had the primary responsibility for item 2, including work in West Java. Rob Northrup had an overall review and advisory responsibility as well as specific responsibility during regular visits, for a new medical school curriculum.

The activities described above constituted Phase I of USAID support for the national CDD Program in Indonesia, with a USAID budget of three million dollars. The USAID also envisioned Phase 2 (from 7/2/88 - 7/2/91) which would allow the GOI to support the continuation of many of these initiatives. Projected new activities during Phase 2 include the expansion of Intensification Areas to three or four additional provinces and more active involvement of the commercial sector in the distribution of ORS. Support from USAID for Phase 2 would depend upon the availability of funds and the nature of results from Phase 1.

Because a resident technical assistance team was in place with strong management capability, PRITECH did not need to provide overall program direction, the usual role when PRITECH has a substantial effort including resident staff. PRITECH and the Mission agreed that PRITECH would be responsible for program inputs only, i.e., timely provision of experts. Short-term TA from PRITECH was reserved mainly for the Technical Director, six months over 2 1/2 years, and experts from MSH's Drug Management team. Because PRITECH was making a relatively large allocation of Rob Northrup's time, at the cost of his not being able to spend that time on other country programs, the Indonesia program was an important commitment for PRITECH. Northrup's role was focussed on the introduction of a new CDD curriculum into medical schools. The rather limited technical role, without policy or management responsibilities, made it hard to justify the high level of PRITECH's commitment. Nevertheless, given the importance of the Indonesian program for A.I.D. and Northrup's historical ties there, PRITECH agreed to the large, high-level, effort despite the limited role.

By September 1987, there was evidence that the pilot intensive campaign, in Garut, West Java, was not making changes in the use of ORT in homes. The complexity of the program, according to a joint report by the PRITECH and Healthcom resident staff, had exceeded the management capabilities of the CDD program. They cited as constraints: lack of consensus about plans at the central level, poor coordination of activities in the province, failure to exploit existing resources. Nevertheless, there was sufficient progress to justify continuation of the program, if activities were developed to overcome these management problems. In October 1987, a joint evaluation by WHO, UNICEF and USAID recommended a restructuring of the national CDD plan with focus on key activities in West Java and expansion of the program to additional provinces, two initially.

In the meantime, the MSH Drug Management group was conducting two landmark studies of the use of pharmaceutical for child survival. The studies revealed costly over-prescribing, including patterns of multiple drug use. Anti-biotic were prescribed more than twice as frequently as ORS; the average child with diarrhea received more than four drugs. The likely result was distraction of mothers from use of ORS and little change that any of the drugs would be used correctly. These studies established a procedure for describing prescribing practices, and presenting the information to decision makers, later developed into a program for application in other countries (ORSMAP).

LESSONS LEARNED

1. National programs need to develop capability for program planning and management at both national and provincial levels, with good operational coordination between the two levels.

   The delays in transferring funds from the central to provincial levels in West Java is an example of the need for attention to the operational connections between the two levels of government. Roles and duties of managers at both levels need definition. Funding mechanisms must respond to provincial requirements in a timely way. Program plans at the provincial level should conform to the national policies and objectives, based on interaction between managers at both levels. National managers had little experience with stimulating and guiding provincial programs; this capability is essential to replicating the program in additional provinces. PRITECH should give high priority to developing capability for the decentralization of CDD programs.

2. The selection of provinces at the beginning of the program should balance management skill with the difficulty of management tasks. West Java was one of the three largest of Indonesia's twenty-seven provinces. West Java's well documented difficulties with implementing the family planning program indicated the high challenges in store for the CDD program. Strong political considerations determined the choice of West Java. The risk of discrediting the national program was high. The likely implementation problems should have been given more weight in choosing the province. A small province or provinces with a better record of success with similar programs would have been better suited to developing the capabilities of the inexperienced staff at the national level.

3. If the USAID Mission has organized strong management for assistance to the CDD program, PRITECH can play a more limited role than is usual for a full country program. Full country programs usually require PRITECH resident staff to help the national CDD manager organize a comprehensive program. In Indonesia, the Mission designated a team to work with the CDD program, which included experts from PRITECH and HEALTHCOM but was led by an experienced advisor to the MOH from the US Centers for Disease Control. PRITECH's role and responsibilities were defined in a comprehensive work plan for the team. The resident PRITECH expert, budgeted half-time, had responsibility for ORS logistics management. Within

Indonesia, he reported to the USCDC team leader. He was given technical guidance from PRITECH's Technical Director and MSH's Drug Management Group. PRITECH's technical Director was asked to advise the team on a broad range of activities during regular short-term visits. The Technical Director was also given primary responsibility for introducing a new medical school curriculum for diarrheal disease. Although such limited scope efforts were not envisioned in the PRITECH contract for large-budget country programs, the well managed team structure in Indonesia allowed PRITECH to work effectively on specific components of its program.

KENYA

BACKGROUND

The involvement of PRITECH in Kenya from 1985-1988 concentrated on two areas: communications and operations research. In addition, PRITECH/Kenya staff assisted the MOH/CDD team to define policy and plan programs, and to collaborate with other efforts -- such as the EPI program and NGOs like AMREF. Training was another area of active MOH interest and strong PRITECH support. The September 1988 PRITECH assessment summarized achievements as follows:

1. CDD Program Policy and Planning

In April 1988, PRITECH sponsored a retreat for MOH/CDD, PRITECH, USAID, WHO, UNICEF, and DANIDA staff concerned with CDD. The goals: common understanding of CDD program objectives and consensus on a CDD plan. This meeting, later known as the Naivasha meeting after its site, produced several documents, including:

- a final draft of the national CDD program policy;
- a five-year CDD Program Plan;
- a four-year plan for USAID's bilateral support for CDD;
- a communications paper by PRITECH's Kenyan communications consultant;
- a summary of the proceedings.

Preceding the Naivasha meeting, PRITECH had provided for six months an expatriate communications consultant who worked on focus-group research in the target districts of Western Kenya, refining the CDD team's understanding of local beliefs about diarrhea and local practices to treat diarrhea. KAP data was collected and analyzed to serve as a basis for message design.

The communications paper produced after Naivasha outlined the communication and social-mobilization strategy of the CDD program, spelling out the methods and procedures to be followed. This strategy, in line with the district-focus policies of the government, emphasized district and local activities. Work then began on health-education materials -- three posters, an information pamphlet

for mothers, an information pamphlet for health workers, a package design for ORS, and radio spots. These materials are now completed.

District-level planning began in Western Kenya. Initial meetings and training activities for District Health Management Teams and their local counterparts were completed. So too were workshops for Health Education Officers.

Prior to the Naivasha meeting, a study of available home containers for mixing ORS was carried out by PRITECH's resident case-management expert. This was the study that led to a change in the standard packet size, a reduction from one liter to 500 mls. The meeting endorsed this change, and Kenya is now in the process of dealing with the many implications of such an alteration.

Another operational-research study, on the electrolyte content of drinks available in Kenyan homes, led to the elimination of some local fluids from the recommended list of home-available fluids (such as soft drinks) and the inclusion of others (such as uji). Several other operational-research studies have been ongoing.

Training activities were carried out by, and indeed were the principal activity of, the MOH/CDD staff. In 1988 alone, they offered 28 courses that were attended by 619 health workers. These were mostly for staff at the clinic level. The PRITECH case-management person worked with the MOH/CDD team to develop training materials and teaching methods for these courses. He has also prepared a outline for upgrading the CDD curriculum of the medical and nursing schools, working with CDD staff, hospital staff, and professionals for the University of Nairobi and AMREF.

In the monitoring and evaluation area, a baseline survey was conducted to serve as a basis for program evaluation, and a checklist was prepared for the different types of information to be gathered from sentinel posts and health-center records. Preliminary steps were also taken with appropriate staff within the Ministry on the development of an integrated health-information system.

DISCUSSION

In many cases, PRITECH staff worked in isolation, from each other and from the MOH/CDD team. This resulted from the distinct specializations of the two principal consultants, but more importantly from the lack of strong leadership for the overall CDD program. As is the case in many developing countries, the health-system infrastructure in Kenya is only now being developed and was not yet at the stage where it could integrate the contributions of consultants with strong ideas of their own. These ideas could have been channeled, perhaps, with strong MOH guidance. In the absence of such guidance, the PRITECH team was faulted for failing to coordinate and integrate itself within the Ministry team -- even though the entire Ministry team focused most of its energies on training.

The half-time PRITECH country representative, in this situation, faced the challenge of reining in the consultants and in her limited available time could not counteract the strong impetus to get things done that the consultants felt -- especially in the absence of MOH guidance. Without question, there was plenty of work to be done, and the PRITECH team pressed on. If the MOH team was not available to work with and not up to speed, the tendency was to move ahead nevertheless, sacrificing long-term institutional impact to the expediency of dealing with urgent critical needs.

The result turned out to be considerable tension, among all parties. The fragmentation that occurred was perhaps the inevitable result of not having consensus on a plan. Lacking this, personnel, both MOH and PRITECH, concentrated on what they did best, becoming more remote from one another.

LESSONS LEARNED

Consultants feel that they have something to offer, and they also feel the expectations of those who hired them. Consultants are given a certain scope of work and a certain amount of time in which to accomplish that work. Donor agencies work on yearly budgets, and need to allocate support in a timely fashion to programs able to absorb that support. The ideal situation for both consultants and donor agencies is to work with host-country counterparts who share their can-do energy and

who offer them a vision to guide them and a concrete plan in which to invest their energies and funds.

The principal lesson of PRITECH I in Kenya has been to avoid filling vacuums created by less-than-ideal host-country situations. In development work, almost by definition, the situation is generally just the opposite. PRITECH must confess to a certain naivete in this situation, and for the future will do well to gauge its inputs to fit the absorptive capacities of the counterparts. Despite the needs that exist, a long view must prevail.

Another lesson is that, whatever the capacities of the parties involved, without a concrete plan that represents a consensus, programs fly apart. People are not focused on the results to which they are all committed, but on other issues -- facilities, systems, personalities, budgets. Just as a lack of absorptive capacity leaves a vacuum that an eager consultant may unwisely fill, the absence of a plan creates a dangerous vacuum also. Not surprisingly, people seek to do something, despite the lack of guidance; also not surprisingly, these disparate activities never dovetail into the kinds of complementary activities that derive from a common plan.

We also learned some of our consultants' strengths and weaknesses, and this will allow PRITECH to provide better management for future activities in Kenya.

MEXICO

BACKGROUND

PRITECH has been involved with the Mexican diarrhea program since 1984, when technical presentations were provided by PRITECH at the First International ORT meeting in May of that year. Similar technical assistance was made available to the second meeting, in April 1986. In January - February 1985, a five-person PRITECH team produced a Strategy Assessment Report that reviewed the entire range of diarrhea services in Mexico and made a series of recommendations. Basic to that series of recommendations was a call for more and better health-care-provider training.

HEALTHCOM was working with the Children's Hospital in Mexico City during 1985 and 1986 to bring in teams from the states for training at the hospital's DTU. It was toward the end of 1986 that a PRITECH planning team went to Mexico to design the PRITECH I intervention, and a natural point of departure for us was to pick up the support for this training that HEALTHCOM would have to relinquish in December. What PRITECH I sought to do was to continue and build upon this training, especially in the states with the highest rates of child death due to diarrhea. The resulting proposal had four parts:

1. The support of a PAHO consultant pediatrician, with special experience in diarrhea training programs. This physician had been with HEALTHCOM, and was an integral part of the in-place training team.

2. Support for diarrhea-prevention-and-control training for health staff in six priority states, especially in the south of the country.

3. Support for training of state teams at the Children's Hospital from the remaining twelve states not covered by HEALTHCOM. This would mean that every state had a trained, central team who could share their training with their colleagues and who could set up DTUs in the states.

4. Support for additional technical assistance, such as educational materials and support for foreign participants in Mexico's annual ORT conferences.

Government figures have shown a general downward trend in the rate of infant and child mortality from diarrhea since the late 1960s. Each had been reduced by about half between 1968 and 1982. The presumption must be that this reduction reflects general advancement in living standards, the spread of better hygiene, and the increased availability of medical services -- the national CDD program only got underway in 1984. Nevertheless, in 1985, 20,000 Mexican children under 5 died from complications of diarrhea. What we see is a situation in which aggregate statistics are masking high-risk groups. Mexico continues to have pockets of sizable populations whose children are at risk to the same degree, and in greater absolute numbers, as the children in countries with much higher infant-mortality rates.

PRITECH'S ROLE

TRAINING

PRITECH's principal commitment since January 1987 has been training in support of the national CDD program. This training was offered in the six priority states and at the Children's Hospital in Mexico City. All state-level training was built on the basis of the three-person team from each state that had been trained at the Children's Hospital in how to provide good diarrhea management and how to set up an ORT Unit. Training proceeded in cascading fashion, from the state capitals to the health jurisdictions within the states to the health facilities within the jurisdictions.

Along with the national CDD team and trainers at the Children's Hospital, PRITECH adapted the WHO Supervisory Skills training materials (in Spanish) for the state courses and developed a series of slide presentations which were duplicated and provided to trainees (150 sets of 51 slides each). All trainees also received a comprehensive series of readings and references relating to ORT; over 3500 of these have been produced by PRITECH. Subsequently, PRITECH has supported the production of flipcharts on CDD for use by trained healthworkers. Table One shows the progress of this training, through August 1988.

TABLE ONE

CLINICAL TRAINING IN PRIORITY STATES

STATE	PLANNED	ACCOMPLISHED	PERCENT
TABASCO	527	608	115
GUANAJUATO	492	461	93
TLAXCALA	253	147	58
CHIAPAS	188	79	42
MEXICO	1514	1090	72
OAXACA	321	435	136
TOTAL	3295	2820	86

Originally, PRITECH planned to work in only three states in 1987 and then in three more in 1988. But the Secretariat asked that all states be launched in 1987, and that was done.

Besides the work in the priority states, training courses have been offered by the Secretariat in several other states reaching hundreds of additional health workers.

As a result of the central training and as a base for intrastate training, forty-four oral-rehydration units were set up in these six states by the end of 1988. Oaxaca has probably made the greatest progress in terms of persons trained and ORUs established. At the main entrance now to the principal hospital in Oaxaca, a large hand-lettered sign advises parents that, if they are bringing in a child who has diarrhea, they should immediately take the child to the ORU and not delay in the emergency-room waiting room.

PRITECH has also carried through to completion the training of state-level teams that was begun by both HEALTHCOM and PRITECH in 1986 through USAID/Mexico. Now all 31 states and the Federal District have at least three people trained in ORT at the Children's Hospital, and have been provided with resources to establish an ORT unit in their local hospitals (cf. Table Two). At least twenty other ORUs have been set up in addition to the 74 in the priority states.

TABLE TWO

CLINICAL TRAINING AT THE CHILDREN'S HOSPITAL

DOCTORS -- 55

NURSES -- 42

TOTAL -- 97*

*At least three persons have been trained from every Mexican state (31).

This week-long clinical training has been based on a very extensive and detailed curriculum, developed by the Director of Training at the Children's Hospital. The training is centered upon the children in the hospital's ORU, a modern facility furnished by UNICEF. In addition to the trainees from the states sponsored by PRITECH and HEALTHCOM, all pediatric residents at the hospital now rotate through the ORU and clinicians have come from other Latin American countries to be trained there. The Mexico Children's Hospital, long the most prestigious of Latin American pediatric hospitals, has now taken a clear lead in the promotion of good diarrhea management. PRITECH has been a steady supporter of this facility, most recently bringing in all the Mexican nationals trained there to participate in a major international ORT conference at the Children's Hospital.

SUPERVISION

Supervision is another key area that PRITECH has supported. In the years 1986-87, staff from the Preventive Medicine Directorate which runs the national CDD program made 67 supervisory trips

to the states, 29 to the priority states. PRITECH has emphasized that training without follow-up supervision is likely to be wasteful. Good, regular supervision can ensure that new skills are put into practice, and that the newly trained staff recognize that they are part of an important national and international movement that can really make a difference in child survival.

WORKING WITH PAHO

The arrangement for PRITECH's intervention in Mexico was made through the Pan American Health Organization (PAHO), through a subcontract with PAHO's foundation, the Pan American Health and Education Foundation (PAHEF). The local USAID Mission did not have bilateral funds available for PRITECH or the capacity to serve as the administrative vehicle for PRITECH funds. At the same time, PRITECH was being urged by LAC/DR to work more closely with PAHO, and we took this opportunity in Mexico to do so.

Because PRITECH has worked in Mexico through PAHO, PRITECH works under the permanent arrangement that PAHO has with the government and enjoys the entree to the Heath Sector which PAHO provides. In addition, PRITECH represents a formal link between PAHO and USAID in Mexico, and it is clear to everyone in the Health Sector that PRITECH is an AID-funded project working through PAHO. In this way, PRITECH in Mexico is a concrete example of inter-institutional collaboration.

PAHO has regularly supplied consultants to professional ORT meetings in Mexico, especially those at the Children's Hospital, and has funded the participation of Mexicans in important conferences outside the country. PAHO was also the organizer of the recent Country Review of the combined CDD/ARI programs, a massive undertaking involving 27 team members, nine states, and almost the entire central staff of Preventive Medicine.

A less quantifiable aspect of PRITECH's presence has been the flexible role of the PRITECH representative. Working out of the local PAHO office under PRITECH's arrangement with PAHO, she has established linkages among all the major actors in the diarrhea program and been a cohesive force in the program.

In sum, the present situation is one of considerable activity and genuine donor collaboration. The Secretariat is taking a clear lead in the planning for the diarrhea and ARI programs, and is seeking specific assistance from the donors in a way that will coordinate donor inputs. PRITECH has established itself credibly, especially in the training area. The launch of the new packet designed by HEALTHCOM marks a watershed for the program's visibility with the public, a time when all inputs of training and public education need to be pressed all the more in the process of making ORS and ORT the diarrhea treatments both supplied by clinicians and demanded by mothers.

CHANGES IN CASE-MANAGEMENT

The PRITECH efforts detailed above contributed to the overall National CDD Program. As measured by government health statistics, significant strides have been made during this period. Consider:

	1983	1984	1985	1986	1987	1988
HWs trained in CDD mgt.	--	353	1191	2985	3782	19,089
DD morb per 100,000	3069	3218	3535	3018	3191	2990
DD mort in under 5s	24,772	21,182	19,434	--	--	--
ORT use by HWs in DD in under 5s	--	10.0%	13.1	28.0	41.8	84.3
access to ORS	49.7%	60.0	62.0	82.0	82.0	--

Data from Tabasco, a PRITECH state, shows particularly remarkable changes. At the main hospital in Comalcalco, the number of children treated with WHO plan B went from 118 in 1987, to 47 in 1988, to 20 in 1989. In the Comalcalco jurisdiction's rural clinics, those cases fell from 270 in 1988 to 73 in 1989. These data indicate that fewer children are coming to these clinics in need of ORS due to moderate dehydration. In terms of causes for hospital admissions, diarrhea has fallen from fifth place in 1984 to tenth place in 1988 in Comalcalco.

A number of convergent data sources lead to the inferences that (1) home management of diarrhea is improving, so that children are less likely to come to clinic dehydrated and so that children are much less likely to need hospitalization and (2) that children who do need ORT at the clinics and the hospitals are much more likely to receive ORT.

The total PRITECH contribution, all from S&T/H, was $300,000.

LESSONS LEARNED

1. PRITECH's Mexico intervention took a different form from those in most of our other countries, because of our formal working arrangement through PAHO. We learned, therefore, the process for working with PAHO on a very concrete piece of work.

2. While LAC/DR favored this collaboration, USAID/Mexico did not. We learned to balance these concerns, in a setting where program funds came from S&T/H rather than from bureau funds.

3. We learned the value of taking on a specific set of tasks, out of the myriad tasks that could and need to be done in Mexico concerning CDD. The size of the country, the variation in states, the relatively small amount of PRITECH resources, the many Mexican health agencies -- any of these factors could have diluted PRITECH's objectives. By concentrating on training in six states and at the Children's Hospital, we were able to keep our intervention manageable.

4. We were working in a very politicized context. By having a concrete set of tasks (lesson three), we were able to focus on those and not on political distractions. In many cases, PRITECH served to link up groups that had little communications.

5. We have learned that significant populations can be at risk from diarrheal diseases, despite the country's aggregate statistics and despite the lack of AID emphasis on that country. Mexico, for example, certainly has as many children at risk as does Bolivia.

6. We have learned the importance of working in a large country like Mexico because of its leadership role among its Latin American neighbors. Especially important have been the series of annual congresses sponsored by the Children's Hospital that have brought together professionals from Central and South American, as well as from Mexico. (PRITECH has sponsored some presenters each year.) Mexico's very size, which contributes to making Mexico a leader, also contributes to the aggregate statistics that mask its large population of children at risk. To be lulled by those statistics would be to miss an important opportunity in the region.

PAKISTAN

The PRITECH I program in Pakistan began in 1985 with a limited activity; a budget level of $120,000 was approved. The objectives were to help develop a communications campaign to increase demand for ORS, and to make some recommendations about the curriculum for training health workers. PRITECH contributed short-term consultants. These objectives were achieved, although the benefits to the program have been less than expected. The design of the communications campaign became a management headache because of bad working relationships between National Institute of Health (NIH) officials and the private advertising agency. The training recommendations were not implemented because they were overtaken by a restructuring of health services. Less than $50,000 was spent on these activities.

During this time and despite the problems in the program, NIH became more committed to making the CDD program successful. Strong leadership from NIH's Director, Major General Burney, was an important factor. In February 1986, PRITECH's Technical Director, Rob Northrup, identified a number of constraints to a more effective national CDD program:

- lack of a clear case-management strategy. No clear decisions as to the conditions determining use of home-available solution, sugar-salt solution, or ORS had been made, despite a recognition that access to public-Sector health facilities is limited to perhaps 20% of the population.

- insufficient emphasis in previous training on the responsibility of providers to teach mothers about ORT, and provision of training activities to provide this skill.

- reluctance by the government to improve the health-information system (HIS). The system did not list diarrhea among the communicable diseases reported, and reported only 36 deaths in the entire country due to dysentery.

- severe shortage of nurses, and an oversupply of physicians who are reluctant to work in isolated areas.

- reluctance to appoint a full-time CDD national manager, even despite offers of full funding from UNICEF for the prior 2 years. As a result the CDD program was plagued by poor decision-making, slow responses and inadequate management. Nevertheless, NIH had the potential for a well-run CDD program, as demonstrated by the success of the immunization program, which has had first priority.

- economic constraints of the MOH/GOP, leading to inadequate funds for field activities, especially supervision.

- lack of a major national effort in nutrition incorporating growth monitoring. Such an activity can be critical in making more feasible improvements in the nutritional management of diarrhea in homes by mothers and thereby a reduction of the long-term degradation effects of diarrhea on nutrition.

- lack of substantial existing cooperation and prospective collaboration between MOH/NIH and commercial manufacturers and advertising agencies, based in part on suspicion of the profit motive and MOH fears of "being taken" by the private sector.

- a federal system, in which the central government has no real control of activities in the provinces, requiring that USAID plan individually for each of the provinces, as well as at the national level.

- a logistics system for ORS-packet distribution confined to public sector health institutions, and not very responsive to changes in demand.

Based on this initial analysis, the USAID Mission and NIH asked PRITECH and WHO to look more systematically and comprehensively at the CDD program. In November 1986, PRITECH's Technical Director Rob Northrup and the WHO/CDD Director Mike Merson assessed the Pakistan diarrheal disease program and recommended an accelerated, comprehensive program. The Merson/Northrup recommendations emphasized education of families and training of health professionals to promote proper ORT practices. The recommendations were accepted and transformed into a one-year action plan. WHO agreed to provide technical leadership and to assign a senior CDD advisor to NIH. The

government agreed to develop provincial CDD programs, and to assign CDD operations officers to create a program structure similar to the successful EPI operation, relying on EPI's delivery system. UNICEF and USAID committed resources to the planned program. PRITECH was asked to provide technical assistance, within the framework of the original PRITECH program budget.

WHO had difficulty recruiting a CDD advisor. Nevertheless, program activity steadily accelerated. Previously, a PRITECH logistics consultant had found aging stockpiles of ORS; the NIH solved the problem by using village vaccination teams to distribute packets to households. PRITECH was asked for increasing levels of technical assistance: in communications, logistics, management information, training and small research studies. PRITECH also provided a senior program advisor for a 3-month period to assist with administration of the program. Over time, the resident communications expert, Lucia Ferraz-Tabor, took on a broader program management role, working closely with NIH, USAID and the other donors. By early 1988 the cost of PRITECH's technical assistance totaled approximately $235,000.

During this time, the Mission was formulating a Child Survival Project, which included a "big push" for the diarrheal disease program. PRITECH fielded a project design team under Systems Support. A basic new strategy for CDD was developed by Dr. Jon Rohde, at that time PRITECH representative to India, and Dr. Rob Northrup to link the medical teaching colleges with the government health services. An important factor was the presence of a group of senior, experienced pediatricians representing several medical colleges who were seeking a more active role in the national CDD program. Rohde and Northrup proposed that the medical colleges become regional training centers for a nationwide effort to train Pakistan's physicians in ORT. These training centers would be specially staffed and charged with helping plan and supervise a network of treatment units in the health system. The medical colleges would also collect data on the incidence of diarrhea and severity of dehydration to help monitor progress of the national CDD program.

Based on an October 1987 visit to Pakistan by Rob Northrup, PRITECH was asked by USAID to recommend a PRITECH effort which would support the objectives and lead to the new project. As proposed, the project would include a major effort to involve the medical schools and teaching hospitals in clinical training and monitoring diarrheal-disease morbidity and mortality. The Mission urged PRITECH to take broad technical assistance and management responsibility for the new

project; however, PRITECH is best suited to a more limited role: providing technical assistance for the CDD program but not taking on management of a major bilateral project. PRITECH II was suggested as a source of technical assistance, through a buy-in from the bilateral program. Operational project management should be handled in other ways, an institutional contract and/or PSCs.

The Mission and NIH requested PRITECH to increase the level of assistance, mainly with resident staff and short-term experts. Assistance was needed in the areas of communications, clinical training, logistics, management information plus general program management. NIH appointed a new, senior and very competent National CDD Program Manager, Colonel Akram; he was also directing the EPI program. UNICEF and CIDA were giving support in the area of communications. There were substantial resources available in USAID's existing Primary Health Care project. PRITECH believed it was in position to make an effective contribution, at least while the current program management structure was in place. PRITECH's objectives were:

1. to develop a standard curriculum for Diarrhea Training Units, and to test the curriculum at a leading medical college;

2. to organize a program to establish DTUs in at least three additional provincial-level institutions;

3. to follow through on recommendations to strengthen logistics management and the management information system;

4. to monitor the public education program, and to improve the messages and educational materials, as appropriate;

5. to give general support and assistance to the national CDD Program Manager.

PRITECH proposed to provide a resident PRITECH Country Representative funded through a Mission buy-in to PRITECH II. Dr. Lucia-Ferraz Tabor had been working with the national program manager for about one year, both as a communications expert and as a general advisor on program

management. She had been an effective coordinator with USAID and among the donors. The Mission recommended that she continue to play a broad role with the program, with administrative and technical responsibilities. PRITECH worked with NIH and the donors in drafting an operational plan for the national program, including specific tasks for PRITECH. The Mission also requested assignment of a senior physician with ORT experience; PRITECH recommended that this assignment should await review of the bilateral Child Survival Project and formulation of a longer-term PRITECH II program proposal.

LESSONS LEARNED

1. In collaboration with WHO, UNICEF and USAID, PRITECH can help lay the foundation for a nation-wide CDD program, eligible for large-scale donor funding. Joint assessments by the Director of WHO/CDD and PRITECH's Technical Director produced persuasive recommendations for action. Offers of resources to pursue the recommendations came in concert from USAID, UNICEF and WHO. PRITECH's resident staff, backed up by highly regarded technical experts, encouraged senior Pakistani administrators to commit the staff and resources required to organize the national program. By the end of the PRITECH I effort, the USAID Mission had developed a Child Survival Project that included $30 million for CDD in Pakistan.

2. Resident staff help create support for sustained activities which give the program momentum. During the first year of PRITECH's involvement, we were limited to short-term technical assistance. Recommended actions for training were not implemented and those for communications encountered great difficulty. Without resident staff it is difficult to work with national managers to create the conditions which develop into opportunities for action; this process requires day-by-day effort working side-by-side with national managers. Developing the program approach to establishment of the DTUs was a slow, step-by-step effort. Moreover, resident staff can work with donors to adjust and modify the course of action as problems emerge. Adaptation to the growing power of the provinces is an example; without resident staff, PRITECH would have had difficulty appreciating the significance and implications of this power shift for the DTU program.

3. Renowned PRITECH experts can introduce major new ideas that capture attention and give national leaders confidence to adopt them. Together with Mike Merson, WHO/CDD, Rob Northrup established a broadened program concept which encompassed the elements of a comprehensive national strategy. Northrup laid the basis with a thorough and specific assessment of the strengths and weaknesses of the program, drawing on experience from other countries. This analysis introduced new concepts for immediate consideration and adoption by the entire group of key policy-makers and program managers for CDD. Two years later, Jon Rohde and Rob Northrup laid out the objectives and basic principles for a more intensive CDD effort focused on the medical establishment, the national DTU program. Rohde's and Northrup's leadership overcame a major obstacle to action: lack of consensus among the powerful pediatricians at the leading medical colleges.

4. Delivery of packets to households solves an important access problem, but changes in household case-management practices are still necessary. NIH's decision to use immunization teams to deliver packets to households solved the difficult problem of ORS distribution, at least in the Punjab. The decision followed a finding that excess supplies of ORS packets were aging in warehouses. This military approach to a logistical problem worked well for Pakistan, where the well-disciplined EPI management structure could carry ORS packets to households. We lack conclusive information about effective use of these packets, however; there was no well-organized training of EPI workers to teach case management to families.

5. Reliance on government supply of ORS packets for home management makes the program vulnerable to lack of government funding. Long delays in Ministry of Health approvals of ORS packet orders by NIH caused serious shortages. As a result, NIH deferred any technical assistance to improve management of the supply system. The shortages demonstrate the benefits of relying on private-sector distribution and sales of packets. More attention should be given to use of home fluids to reduce the needs for packets.

6. Access to women is restricted, and education levels of women are very low, so improvements in treating diarrhea within the family come slowly. Mass-media activities have been a high priority, but plagued by disputes between the government which funds and approves activities, and private advertising firms which have the creative capabilities. Most effort has been directed

at training physicians who will set standards for case management in the health system, and who will treat serious dehydration cases brought to the hospitals. Interaction between health workers and mothers is limited at best, and less than 25% of health services are provided by government facilities. The program is still seeking an effective strategy for improving home management of diarrhea.

7. Involving the private sector through A.I.D. bilateral mechanisms is difficult when government officials are hostile to the private sector. When government and the private sector are mutually suspicious, as occurred with the advertising campaign, the process slows down dramatically and the quality of results is compromised; a relationship of trust is needed to produce timely, high-quality work. In situations where there is conflict between the government and the private sector, PRITECH can often step in to stimulate action by the private sector with the government role limited to setting the policy framework and providing normal regulation. PRITECH's ability to be a stimulus depends on funding outside the bilateral project (e.g., from S&T/Health) and the acquiescence of government managers to PRITECH's independent efforts.

ZAMBIA

LESSONS LEARNED

An important lesson learned in the Zambian case is how much can be accomplished in a short time under very difficult economic circumstances. Since August 1986, the presence of a PRITECH representative whose advocacy, coordination and assistance in program implementation in close collaboration with the WHO APO has succeeded in raising the CDD program from a low-priority status with only a few activities to a high-priority, active, and highly visible program. Evidence for this comes from the fact that donors including WHO, UNICEF, and PVOs have increased their level of support in view of the high level of accomplishments and projected plans of the CDD program. Moreover, in 1990 the Government of Zambia, for the first time, included CDD in the MOH budget. A recent MOH/CDD planning workshop which was attended by the Permanent Secretary and Assistant Director of Medical Services, the Director of Pharmaceutical Services as well as representatives from all MOH departments, NGOs, private physicians, and the School of Medicine bears witness to the increasing interest in the CDD program and points to encouraging prospects of further program coordination and integration.

The CDD program in 1986 began with only a newly appointed program manager, an assistant program manager, one public-health nurse, and ORS being stocked primarily for use in cholera outbreaks. Within the course of three years the range of activities has expanded rapidly. A national CDD coordinating committee was formed with subcommittees to deal with ORS production and health-education-materials production. An impressive array of research activities was conducted to fill in information gaps, establish baselines, and answer key program questions. The research included a nationwide CDD/UCI Baseline survey; an ORS distribution study in health centers, private surgeries, and chemists; an effective-use study; a case-management assessment of health workers; a survey of traditional healers; and an assessment of nursing-school curricula. All of this research was carried out in close collaboration with the MOH during planning, design, data collection, and analysis. Moreover, the surveys required little in terms of resources but paid big dividends in raising program awareness among health workers and the community.

A wide variety of health-education activities was implemented through the CDD health-education committee, in collaboration with UNICEF, WHO, media personnel, and the School of Medicine. Major activities included production of posters, leaflets, radio programs, television spots, newspaper ads, and use of popular theater. The use of popular theater, in particular, proved to be an effective, culturally appropriate, and cost-effective method for promoting ORT in the community. The idea of using popular theater has spread and other donors and PVOs like WHO, UNICEF, NORAD, SIDA, Red Cross, and YWCA have used theater to promote health education and development issues. The use of theater to promote ORT and other health messages has also been taught to drama teachers throughout the country, thus ensuring sustainability.

Another important lesson learned has been the fact that it is important to recruit field staff who are familiar with local conditions and have experience with the system. The PRITECH representative in Zambia had many years of experience working as a community-health researcher, served on key health-policy advisory committees, and was therefore able to operate with maximum effectiveness. This fact was important because the CDD program was new and required strong advocacy to convince key leaders of its importance. It was also important at this stage to coordinate donor support in order to ensure a coherent CDD-program strategy.

PRITECH has worked in close association with WHO staff, particularly the APO, in many of the key areas of the CDD program including research, supervision, training, and program planning. The planning, funding, and construction of the subregional DTU facility at the University Teaching Hospital is an example of a project that required the efforts of a committed APO to become a reality, in the face of constant bureaucratic delays and frustrations brought about by the Zambian economic situation.

It is clear that, given Zambia's bleak economic outlook, donor commitment will be necessary to sustain future CDD efforts in spite of the government's avowed self-reliance policy and efforts to develop through their own resources. The most serious constraint to program progress during PRITECH I has been a severe shortage of personnel (MDs and nurses, in every health program at all levels, central, provincial, and district), a constraint particularly felt in a new program like CDD. Therefore it is important that the CDD program justifies the allocation of staff and time by the MOH through its activities and demonstrated progress. Fortunately, this has been done: the MOH

has realized the importance of CDD and has increased financial support and allocated additional staff.

While a great deal has been accomplished in Zambia through the combined efforts of a committed core MOH staff, the PRITECH representative, WHO, and UNICEF, there is a need to sustain and consolidate these achievements by reinforcing ORT concepts, to increase correct case-management through training of a critical mass of health personnel (PMOs, pediatricians) and through health education of the public.

SPECIFIC LESSONS

In terms of project implementation from a donor's perspective, a lesson learned was that often what a donor may perceive as a reasonable, logical, and effective use of resources may in fact not be possible given the social and political realities of the country. For example, some PRITECH CDD interventions in Zambia were originally conceived to be implemented in a phased manner in a few provinces. However, the MOH preferred a national approach from the very beginning. Other donor projects have had similar experiences in targeting only a few districts within a province, which then gave rise to political problems later in those districts not targeted for project support. Clearly, a donor must be sensitive to these country-specific situations and not impose preconceived implementation models.

Another valuable lesson for the MOH and donors in Zambia was the importance of conducting CDD training both top-down (physicians, PMOs, and DMOs) and bottom-up (health-center staff). The MOH had been carrying out training courses for health-center staff and mid-level supervisory-skills courses since 1984 but found that those trained soon encountered problems in implementing what they learned because their provincial or district medical officers were resistant or unfamiliar with ORT, ORT corners, etc. The importance of hands-on training emphasized at the DTU has also been accepted as essential to CDD training at all levels. At the other end of the spectrum, the value of very simple ORT centers with a minimum of equipment in every health center has also been recognized.

As mentioned earlier, using indigenous and popular ways of distributing health-education messages has proved very successful in promoting ORT in Zambia. The popular theater is indeed popular and well established throughout Zambia, drawing large crowds of mothers and children. The two popular-theater groups hired by PRITECH in Zambia to develop and perform ORT plays have gone a step further by publicizing performances on a house-to-house basis. Popular theater is a very low-cost investment with a very large return.

Competitions and contests have also resulted in songs and posters by local artists, providing access to Zambian talent and also ensuring materials which have culturally recognizable and acceptable messages.

During PRITECH I, PRITECH worked primarily with the MOH, with only some contact with the mission health system of the Churches Medical Association of Zambia, and also with the other two major players in the delivery of health care in Zambia -- the mines and the military. We recognize the need to make greater efforts to access all the non-MOH systems in PRITECH II and the first step is the recent agreement of the MOH to have representatives of the CMAZ, the mines, and the military on the National Coordinating Committee. (The Political Party will also be represented in the future at the NCC.) In addition, PRITECH is negotiating the appointment of a PRITECH-funded Zambian pediatrician to the central staff of the CMAZ to improve case-management of CDD in the mission system and to coordinate the efforts of the CMAZ and the MOH; PRITECH played a major facilitating role during PRITECH I in Zambia, but principally with the MOH and the major donors. With such scarce resources and an ever dwindling economy, it is increasingly evident that the efforts of all the players, large and small, need to be accessed, encouraged, and coordinated, including the traditional healers, the PVOs, the schools, the women's organizations, and the foreign physicians who dominate the health system of Zambia.

BANGLADESH

BACKGROUND

In January 1985, USAID/Dhaka asked for PRITECH assistance to do two studies relating to marketing ORS: (1) an anthropological study and (2) and market-research study. The first was basically a qualitative KAP study relating to mothers' care for diarrheal disease in their children, the second intended to be the basis of an ORS marketing plan. Both studies were completed within the year.

THE ANTHROPOLOGICAL STUDY

This research turned out to be 240 interviews in five districts of the country, and produced information of the nature, causes, and treatment of childhood diarrhea. The data produced by the study gave useful information for marketing ORS, by articulating the perspective of the potential consumers themselves. For example, one striking finding was the lack of confidence among parents to treat their children's diarrhea at home; ORS could be marketed to fill this niche, by raising parents' confidence to use this new therapy at home, without going to seek outside help unless certain danger signs appeared.

Also notable was the role of untrained allopathic healers. Parents sought their services and advice more often than those of any other group. ORS marketing strategies would be wise to involve this cadre of health workers, to tap into their credibility and access.

THE MARKET-RESEARCH STUDY

This too was a survey, among a sample of ORS users (actual and potential), doctors and health-care providers, and pharmacists. The sample of about 1500 was evenly divided, urban and rural. Investigating six factors -- ORS mixing, ORS effectiveness, containers, brand names, packaging, and price -- the study concluded that the marketing, or communication, program should be sustained rather than a campaign and that the program should concentrate on correct measurement of water, correct volume, and proper feeding during diarrhea.

DISCUSSION

PRITECH was not called upon to implement the marketing of ORS in Bangladesh; this was to be done through an existing bilateral project, originally established for the marketing of contraceptives.

Total PRITECH Investment: $ 125,000.

DJIBOUTI

BACKGROUND

PRITECH first became involved in developing plans to provide technical assistance to a national ORT program in Djibouti in early 1984. In April of that year, PRITECH Director John Alden visited Djibouti at the request of the USAID Mission to discuss possible PRITECH assistance in ORT to a primary-health-care (PHC) project then being planned, in which ORT and other PHC measures would be added to the existing food and nutrition program being conducted by the Catholic Relief Services (CRS). In October/November 1984, PRITECH Operations Officer Mark Rasmuson spent two weeks in Djibouti with a three-person team to evaluate the CRS program and assist CRS in the preparation of a new PHC-oriented grant proposal. In December, USAID/Djibouti submitted a "PID-level document" based on this team's work, which included a bilaterally funded component for review by AID/Washington.

The Executive Committee Project Review of this document in January 1985 concluded that while the proposed project was technically sound, it created significant new management responsibilities for the USAID Mission in Djibouti and was inconsistent with Africa Bureau policy to reduce project programming in small African countries. The Committee recommended that AID determine if UNICEF would be willing to accept the Djibouti project funding and manage the project through its regional or country offices. The New York and Djibouti UNICEF offices responded positively to this proposal, and AID/Washington therefo ncluded Djibouti among the countries targeted in a $7.5 million grant for child-survival activities made to UNICEF in August 1985 from Child Survival Action Program (CSAP) funds. CRS subsequently terminated its entire program in Djibouti.
Throughout this review process, communications from UNICEF to PRITECH indicated that PRITECH's contribution to the program would continue to be sought even if UNICEF rather than AID were to be managing the project, and in August 1985 PRITECH received a formal written request from UNICEF/Djibouti to continue to participate in project development and implementation. In September 1985, Mark Rasmuson returned to Djibouti to assist the UNICEF office in completing the project plan; this plan was then submitted to UNICEF/New York at the end of that month. This project and PRITECH's role in it, as described below, are fundamentally the same as those described in the USAID document reviewed in January 1985. The major differences

are that the management role will be played by UNICEF rather than USAID and CRS and that the implementation role foreseen for workers in CRS's former food and nutrition program ... ow be served by the private Djiboutian women's organization, Union des Femmes Djiboutien. UFD .

RESUME OF PROJECT

The following description of the project is extracted from the document prepared by UNICEF/Djibouti and submitted to UNICEF/New York in September 1985.

JUSTIFICATION

An infant-mortality survey conducted by WHO in Djibouti in 1985 determined an IMR of 200/1000. Diarrhea was the first cause of deaths -- 49%. Only 21% of mothers reported giving ORS to their children for diarrhea. The Ministry of Public Health (MOPH) estimated that 15% of infant mortality is linked to malnutrition, and that 40% of children under 5 are malnourished. Bottle-feeding is common among Djiboutian mothers, nearly one-third of whom breastfed their children for less than six months.

OBJECTIVES

1. To strengthen the capacity of the Ministry of Public Health and affiliated public services to treat the problems of childhood diarrhea and malnutrition effectively.

2. To promote ORT and increase the use of ORS both in health facilities and in homes.
3. To improve infant nutrition during the first months of life, during weaning, and during episodes of diarrhea and other illnesses.

ACTIVITIES/OUTPUTS

There are three major components in the project: strengthening clinical services, particularly at the dispensary level; strengthening health-education activities at health facilities and in communities; and research and evaluation for improving program planning.

THE PRITECH CONTRIBUTION

PRITECH was asked to provide technical assistance to the project in the following areas (A through D below), and did provide assistance as indicated (1 through 7 further below). The numbers in parentheses in A through D refer to technical-assistance missions that dealt with each area.

A. ORT Policy and Program Formulation. Evaluation of existing clinical treatment of diarrhea; advocacy among the medical establishment for ORT; determination of standard treatment protocols; establishment of an ORT demonstration unit. (1, 2, 6, 7)

B. Health Communications Planning. Baseline investigation of audience beliefs and practices; message development; health- campaign planning; training of Djiboutian counterparts in these areas. (3, 4, 5)

C. Educational Materials Development. Design, testing, and production of educational materials, both print and broadcast; training of Djiboutian counterparts. (5)

D. Training. Design of methods and materials for training health personnel in ORT and nutrition; training of Djiboutian trainers in adult-education and health-education techniques. (5, 6)

PRITECH responded with the following technical assistance:

1. A design of the ORT segment of the Food and Nutrition Program of CRS. (October-November 1984)

2. A design of the technical-assistance plan for ORT after the program focus shifted to UNICEF. (September 1985)

3. A full strategy assessment with a four-person team, including an ORT physician, a materials-design specialist, a communicator, and a health-evaluation expert. (February - May 1986)

4. Collaboration with UNICEF on a study of healthworker KAP, two community studies, and the analysis of data from a study on child nutrition. (July 1986)

5. A six-month interim country representative to cover the time before which UNICEF could name a program director. (January - June 1987)

6. The preparation and conduct of an ORT training course for physicians. (June 1987)

7. Ongoing planning of the ORT program with the MOH and UNICEF. (June 1987)

The total PRITECH contribution: $144,000.

LESSONS LEARNED

The Djibouti limited intervention provided inputs into a CDD program that was marked by a strong UNICEF commitment. The MOH as yet had not made CDD a priority, though they did during this period appoint a National Coordinator for CDD. The PRITECH inputs, coordinated through UNICEF, were not integrated into an ongoing MOH effort, but rather sought to stimulate the government and its staff. PRITECH recognized the need to make the program a government program, not a donors' program, yet at the end of the intervention the viability of the MOH CDD effort remained uncertain. A big question mark was the possibility of a change of ministers, the consequences of which could not be foreseen but the possibility of which made for uncertain policies.

The Djibouti experience reinforced the need for sound MOH structures for our counterparts and clear MOH policies into which to incorporate our programs. Discrete inputs may have had positive effects on particular individuals -- e.g., the physician's seminar -- but institutionally the CDD program within the MOH is far from mature. Despite the large AID investment in Djibouti for CDD (it was AID who funded UNICEF there), the future remains uncertain. The PRITECH investment, given the circumstances, sought to shore up several basic areas of a program, but in the end the lack of political will cast the longer shadow.

An additional political factor was the uncertain future of the USAID Office in Djibouti, given the desire of the agency to close down some of its smallest representations. While the office remained in place during the PRITECH intervention, its fragility only added to the dubious nature of long-term prospects.

MOROCCO

BACKGROUND

PRITECH carried out an assessment in Morocco in 1985, with a view toward collaborating with the MOH on a full CDD program. The PRITECH assessment team comprising an ORT physician, a communications expert, and a planner recommended program activities responding to requests from the Ministry of Public Health in the areas of training, public education and program evaluation.

Some months later, a PRITECH team returned to Morocco to initiate program implementation, but the proposition to have a PRITECH representative in-country turned out to be a stumbling block in the negotiations. The MOH did not want this kind of long-term technical assistance, feeling that the funds could better be spent by the MOH on MOH programs directly. For its part, PRITECH is in fact a technical-assistance mechanism created by AID, not a funding channel, and could neither abrogate responsibility for its funds nor abandon its technical-oversight mandate. As a result, progress was halted on PRITECH participation in the national CDD program.

One outcome of that PRITECH trip, however, was to learn of the Ministry's interest in contracting a private firm to carry out the formative research for the proposed immunization and ORT educational campaigns. As the impasse on the broader program solidified, the possibility of PRITECH support for this research grew. PRITECH would have to contract directly with the firm, and would have to be involved in developing the request for proposals, in reviewing the proposals, in making the award, and in overseeing the technical aspects of the research. The Moroccans agreed.

This therefore became the PRITECH Morocco activity. The RFP was drawn up and, after considerable negotiations, a contract was let for $88,225 with LMS Conseils of Casablanca. LMS was hired to do a study of the markets for ORT and the National Immunization Program (PNI).

To accomplish these tasks, LMS agreed to carry out their research in four parts:

- a household survey dealing with the pilot "National Vaccination Days" held in the spring of 1987 in the province of Kenitra;
- a qualitative study with mothers;
- observation and interviews in health facilities (health centers and dispensaries); and,
- a quantitative study with mothers (KAP study).

RESULTS

In August 1988, LMS presented their principal findings in a very lengthy document of over two hundred pages and summarized those findings as follows:

1. While there is a noticeable increase in awareness of childhood diseases, a great deal of effort is still needed to improve mothers' understanding of these diseases and mothers' practices in treating these diseases. The most common correlate with high awareness is high exposure by the mothers to television or radio. Real gains were noted following the national vaccination days and their attendant publicity.

2. Mothers hold contradictory beliefs. For example, while more than four out of five mothers believe that diarrhea can kill a child, most rural mothers feel that diarrhea lasting a week does not seriously affect a child's health.

3. Almost equal are the numbers of mothers who believe in traditional medicine as in modern medicine, especially in the rural areas.

4. Pharmacists have high status with mothers, and as compared to doctors and their treatment of diarrhea, are equal to doctors in status. Notable too is the finding that fewer than 3% of

mothers get ORS at a pharmacy and that 84% of the mothers get other medicines at a pharmacy.

5. Television and radio were quite effective in reaching the target population during the vaccination campaigns, especially in urban areas. Three out of four urban mothers say radio and TV are easy to understand, while in the rural areas only 39% of the mothers find radio and TV so comprehensible. Rural women prefer interpersonal channels much more than urban women do, and they prefer to have that other person be a woman. Coupled with interpersonal channels -- local leaders, town criers, and health workers -- they covered almost everyone.

6. In addition, a series of findings were reported:

LESSONS LEARNED

What PRITECH is and what PRITECH can do is not immediately evident to host governments, and those governments often project onto PRITECH what they want PRITECH to be. In Morocco's case, the government had interest in diarrhea and had a need for funds for their program, but saw no need for additional technical assistance. Nor were they convinced of that need by the PRITECH assessment. It is important for PRITECH to be as clear as possible as soon as possible about what PRITECH can do and what PRITECH cannot do for the host government.

The same is true for USAID Missions. They are not fully aware of PRITECH's characteristics and often make requests that go beyond the contract.

In the end, both the Moroccans and USAID were pleased with PRITECH's support for this research and with the research itself.

OMAN

BACKGROUND

At the request of the Omani Ministry of Health and the Office of the AID Representative in Muscat, PRITECH sent a five-person team to Oman in January/February 1986 to assist in the drafting of recommendations for a five-year child-health plan. The scope of work for the team specified that recommendations should build on prior accomplishment by the MOH, and called for particular attention to be given to growth monitoring and oral rehydration therapy.

RECOMMENDATIONS

1. The establishment of an MCH Coordinator within the MOH to coordinate the many currently disparate activities directed at mothers and young children.

2. Determination of the infant mortality rate. This would provide a basis for planning for the next five years and demonstrate the evident effectiveness of Ministry programs so far -- since informal estimates of the IMR show a marked decrease in the period 1970-1985.

3. Set goals and establish targets. Health services need to have goals before a plan can be developed.

4. Strengthen the health-information system.

5. Additional training of trainers. There is need to provide widespread training to nurses and medical orderlies who have primary contact with mothers and children.
6. Greater attention to growth monitoring. Especially emphasized was the training of health staff in the proper use of the child-health card.

7. The development of written protocols for patient management in all maternal and child services.

The team developed these recommendations in the context of a five-year plan, with great detail articulated for year 1.

DISCUSSION

This Oman activity differed from other PRITECH interventions, in that this mission was a self-contained effort, a major input (five-person team over four weeks) calling for a particular output by the end of the mission (the five-year plan). PRITECH was responding to a specific request passed through the AID representative.

Total cost: $100,000.

APPENDIX B – SYSTEMS SUPPORT REPORT

I. INTRODUCTION

The Systems Support component of the PRITECH I Project was set-up to support the Disease Control activities of the project through enhancement of health-care infrastructure and management capacity in host countries. Additionally, Systems Support was designed to provide technical assistance to Ministries of Health and on behalf of USAID Missions in a variety of health areas, which initially included diarrheal diseases, immunization, and health financing. PRITECH I Systems Support successfully met these challenges, providing a source of effective technical assistance useful to Ministries of Health, USAID Missions, and AID/W. Systems Support has provided a framework for incorporating PRITECH's specific role as a technical resource for CDD into a larger primary-health-care perspective.

II. DESCRIPTION OF PRITECH I SYSTEMS SUPPORT

The PRITECH I project paper described Systems Support as "the provision of technical assistance in management, competency-based training, and program and project design and evaluation" designed to complement the project's Disease Control programs. Systems Support resources, initially projected to total 260 person months of technical assistance for the life of the project, were to be split into the general technical-assistance categories of Management (120 person months), Training (50 person months), and Program Design/Evaluation (90 person months).

Final statistics for use of Systems Support are as follows:

Table 1: Person months provided: numbers of assignments and countries

Project Year	Person Months Provided	Number of Assignments	Number of Countries
PY1	65.8	35	21
PY2	49.2	51	32
PY3	72	75	32
PY4	82	62	29
PY5	68	58	27
PY6	11	8	7
TOTALS:	348	289	

Initial demand for Systems Support technical assistance proved higher than anticipated, as is demonstrated in Table 1. After just seven months into the project, 56.75 person-months of technical assistance had been provided, well ahead of the pace initially anticipated. At this point, several potential difficulties with the allocation of Systems Support technical assistance became apparent. Not only did the demand for such technical assistance appear to be higher than anticipated, technical assistance provided on a first-come, first-served basis meant that there would not be sufficient resources to meet requests for assistance given priority by PRITECH and S&T/Health.

During PY2, Amendment #8 to the PRITECH I contract addressed these concerns, raising the total number of person months for Systems Support to 350 and creating an allocation system for available technical assistance, divided by region and by funding source (mission PIO/Ts, central funds, and the FVA/PVC office). By raising the overall contract funding ceiling, this amendment also allowed for greater use of USAID mission buy-ins to finance consultancies requested by a given mission. Amendment #8 also altered the scope of work for Systems Support, removing

immunization and finance activities, which had become the prerogative of other AID-funded projects, and adding private-sector activities.

During PY3, PRITECH effectively implemented the regional allocation system; the result has been a geographical distribution of Systems Support assignments which has met AID technical assistance priorities:

Table 2: Assignments by Region:

Project Year	Africa	Asia	Near East LAC	Inter-East	Regional	TOTALS
PY1	9	9	8	6	3	35
PY2	10	8	18	5	10	51
PY3	20	15	25	7	8	75
PY4	17	13	20	2	10	62
PY5	15	9	17	1	16	58
PY6	3	2	2	0	1	8
TOTALS:	74	56	90	21	48	289

PIO/Ts funded approximately 60 per cent of Systems Support assignments. USAID Missions found PRITECH Systems Support a useful mechanism, and often a shortcut around more time-consuming administrative requirements, for obtaining desired technical assistance. Missions were willing to provide funding for technical assistance. For example, USAID/Jakarta funding for Systems Support technical assistance in Indonesia totalled $187,372. Other PIO/Ts came from the Africa Bureau -- $200,000 for activities in West Africa in collaboration with the CCCD Project -- and from the FVA/PVC Office -- a total of $320,000 for technical assistance in support of Private Voluntary Organizations.

As anticipated in the PRITECH I project paper and contract, Systems Support assignments took on a wide variety of scopes of work, adapting to the needs of missions, bureaus, and the FVA/PVC office. Examples of the more common assignment scopes are: project design and evaluation, health education and materials development, survey design, participation in ORT conferences, development of child- survival implementation plans, training, and development of health-information systems.

III. EVALUATION OF PRITECH I SYSTEMS SUPPORT

(A) Benefits provided:

Administrative support provided by PRITECH Systems Support staff proved effective in locating and fielding consultants with experience and qualifications appropriate for the required tasks. PRITECH staff used the MSH computerized consultant registry located in Boston as well as extensive consultant files in the PRITECH office to locate consultants to satisfy mission and AID/W requests. Consultants were consistently fielded in a timely fashion, and often at short notice. USAID missions, bureaus, and the FVA/PVC office were generally highly satisfied with the technical assistance provided in response to requests. Additionally, this Systems Support technical assistance was provided at a reasonable cost -- an average of $9,409, exclusive of management costs, per person-month over the first five years of the project. Including management costs, the average cost of one person-month of Systems Support technical assistance during this time period was approximately $10,000.

Systems Support also proved helpful in starting PRITECH Disease Control country programs. The PRITECH intervention in Mexico, for example, evolved from a Systems Support assignment conducted by a PRITECH consultant, working with the Mexican CDD Program in November 1984. Systems Support served as a valuable entree and public-relations mechanism for PRITECH in the project's relationships with bureaus and missions.

S&T/Health also found Systems Support to be an effective and flexible method for supporting technical assistance and providing input to national and regional health programs. The wide variety of Systems Support assignments allowed a means to connect similar efforts -- such as training -- in different applications of primary health care. Reports written by Systems Support

consultants provided both PRITECH and S&T/Health with information on developments in diverse primary-health-care areas.

(B) Problems encountered:

Some of the PIO/T "buy-ins" into the PRITECH contract for Systems Support assistance have lacked adequate scopes of work. USAID Missions understandably do not want to overcommit themselves to specific activities; however without clearly defined scopes, PRITECH's efforts to meet specific needs can be more easily frustrated. Evaluation of consultancies in support of health goals is also more difficult in the absence of a clear definition of those goals. If possible, money for mission buy-ins should not be committed into the PRITECH contract prior to the development of scopes of work.

IV. LESSONS LEARNED

- Scopes of work for PIO/Ts should be adequately defined.

- PRITECH has effectively reviewed reports resulting from consultancies before passing the reports to AID in a polished state. However, responsibility for reviewing reports resulting from consultant assignments has proven to be a strain on the resources of PRITECH's Systems Support staff, given the small number of staff (one Program Officer and one Program Assistant at the end of PRITECH I) and the large number of assignments.

  Additionally, PRITECH developed a consultant-report tracking system designed to highlight reports which were delinquent at the submission, review, and AID-concurrence stages. This tracking system at times fell behind the large number of reports generated. A new system has been developed on dBASE for the PRITECH II contract -- with an additional staff member, PRITECH II will be better able to effectively track the large number of reports.

- Evaluation of consultant's performance on assignments, both in terms of individual consultant's effectiveness and the overall contribution to larger health goals, proved to be difficult at times. PRITECH was in every case accountable for the consultant effectively

completing his or her scope of work. In some cases, however, PRITECH could not be accountable for the contribution of that scope of work to greater health goals, which typically involved factors well outside of PRITECH's control. For reasons of confidentiality and a lack of quantitative measures, PRITECH did not implement a written, formalized system of consultant evaluation. Rather, PRITECH developed an informal system of evaluating consultants' performance for future reference in locating appropriate consultants.

- Systems Support provides an excellent opportunity for integration of various aspects of primary health care in developing countries. Rather than simply being a response mechanism meeting requests for technical assistance from missions, bureaus, and the FVA/PVC office, Systems Support should be used in a proactive manner by S&T/Health and by PRITECH to identify important regional and cross-disciplinary issues and to work towards solutions for those issues. Systems Support assignments can be used to tie together health concerns in a beneficial way -- for example, PRITECH Country Representatives are often well situated to determine what types of Systems Support technical assistance will strengthen primary-health-care infrastructure, thus directly or indirectly assisting CDD programs.

  Systems Support technical assistance used in this manner is an excellent method for transferring knowledge gained and lessons learned from one primary-health-care area to another. Systems Support technical assistance was increasingly used for such integrative efforts towards the end of PRITECH I, including assignments contributing to the Bamako Initiative. Integrative efforts, including the Oral Rehydration Salts Management Assessment Package (ORSMAP) and drug-management initiatives in Indonesia, will be a major emphasis under Systems Support in PRITECH II.

V. TRANSITION TO PRITECH II

The PRITECH II contract calls for allocations of Systems Support technical assistance similar to those provided under PRITECH I. Instead of 350 person months authorized in the PRITECH I contract, the PRITECH II contract authorizes 250 person months of Systems Support and 125 person months of "Ad Hoc" technical assistance, designed to be well integrated into existing

CDD programs. PRITECH technical assistance to ROCAP/INCAP will be an example of Ad Hoc Technical Assistance.

PRITECH II calls for an increase in the allocation of Systems Support resources to the Latin America/Caribbean region. While 31% of PRITECH I Systems Support assignments were in the LAC region, the PRITECH II contract allocates 45% of Systems Support technical assistance to the LAC region.

The PRITECH II contract calls for Systems Support technical assistance in a wide variety of health areas, including measles, malnutrition, diarrhea, training, supervision, and support for village health workers. The PRITECH II contract emphasizes the need to integrate responses to each of these challenges.

APPENDIX C – INFORMATION CENTER
(Including Conferences)

I. INTRODUCTION

An information component was outlined in the original contract of PRITECH I. Of the forty USAID Missions cabled regarding this component, the majority responded favorably by stating that information services made available through the project would be beneficial in terms of program activities. In response to this positive feedback, the Academy for Educational Development was sub-contracted to manage this component and provide a Director of Information Services. The three main functions of the component were as follows: (1) creating and maintaining an Information Center; (2) producing five Annual Technical Updates; and (3) conducting regional conferences and workshops on program-related issues. In addition, a promotional announcement about the project as a whole as well as its information services was to be created and circulated. During the process of the AED contract approval, items #2 and #3 were removed from the purview of the Information Director except in terms of providing resources for these activities. The main focus then became acquisition and dissemination of information.

(A) OBJECTIVES (GENERAL)

Operating as a small reference library, the Information Center's primary duties included defining its target audience, acquiring and disseminating appropriate reference materials, devising a cataloguing system, and responding to information requests. One of the main objectives involved gathering materials such as journals, books, technical reports, project- and country-specific information, and any other relevant items for the collection. In keeping with the project's initial focus on immunization as well as on ORT and CDD programs, the items procured were to reflect these categories while also adding general information on disease-control technologies in primary-health-care programs. After acquiring these documents, the Center's responsibilities involved abstracting, cataloging, and entering them into a computerized database and publishing a list of holdings. In terms of information requests, the Center was responsible for handling inquiries from PRITECH staff, field personnel, and AID. Handling ad hoc requests consisted of activities such as providing resources for conferences and producing promotional materials when the needs arose.

(B) ACCOMPLISHMENTS (GENERAL)

The Information Center did not formally exist until December, 1983, when PRITECH moved to permanent offices in Rosslyn. Initial accomplishments included the physical establishment of the Center itself and collection of data by the Director about cataloging, organization, and acquisition systems through visits to other information centers. Over the course of the project, the Information Center's main accomplishments included the following: (1) a collection of over 2,500 documents; (2) linkage to two main outside databases (the Institute for Scientific Information in Philadelphia and the Johns Hopkins Publications and Information Program which in turn is linked to the MEDLARS systems of the National Library of Medicine); (3) a mailing list of over 1,000 clients; (4) responses to 5 to 10 requests per week; (5) production and distribution of an annotated bibliography of some 1,200 documents; and (6) and provision of informational resources for five PRITECH regional conferences. The Information Center also produced certain promotional materials for the project such as folders promoting ORT and a PRITECH brochure. Exchange relationships with information centers in developing countries and in the U.S. were established as a means to enhance PRITECH's informational activities as well as to provide support to new centers.

In addition to its contractual obligations, the Center also produced and distributed the Technical Literature Update, a monthly review of current literature on ORT and related health issues, to approximately 680 individuals. By the end of PRITECH I the staff had grown to three members, the collection encompassed not only documents but periodicals and audio-visual materials, and a steady stream of requests was being processed.

II. SPECIFIC OBJECTIVES AND ACCOMPLISHMENTS

In discussing the objectives and accomplishments of the PRITECH I information-services component in detail, five main areas must be examined: (1) building the reference collection; (2) dissemination of materials; (3) exchange relationships; (4) creation and distribution of promotional materials; and (5) conferences.

(A) BUILDING THE REFERENCE COLLECTION

During Project Year I the emphasis was placed on equipping the Center and acquiring a collection. The Center's first director made several observational trips to gather ideas for PRITECH. Among the places visited were the Johns Hopkins University, National Library of Medicine, UNICEF, Harvard School of Public Health, the Water and Sanitation for Health Project, the International Children's Center in Paris, and the London School of Hygiene. Acquisition of documents began, including a limited number of journals, and the Center purchased a computer system and CONDOR software. A thesaurus was designed with appropriate terms in order to facilitate cataloguing and acquisition of new documents. By the beginning of PY3, the Information Center was fully operational and had a collection of 900 documents. A cataloguing system was in place and computer entry begun.

The above activities continued steadily throughout the remaining years of PRITECH I. In 1985, the focus of the collected materials changed as the scope of the project shifted to encompass only CDD and ORT programs. A new AID program, REACH, began to handle the immunization component, thus allowing the PRITECH Information Center to focus its attention on acquiring materials relevant to CDD and ORT. The Center also began to emphasize project and program-related literature, as well as materials from the field. Documents were being acquired at the rate of 40 to 50 per month through subscriptions to various periodicals, acquisitions from the Institute for Scientific Information, the Johns Hopkins Population Information Program document services, and retrieval of materials by field personnel. It is also important to note that a change was made in the software system used by the Center; CONDOR was replaced by SCI-Mate, a program more suited to PRITECH's informational needs. By PY5, the Center's collection totalled more than 2,400 documents and included a growing number of audio-visual materials.

(B) DISSEMINATION OF MATERIALS

Dissemination of materials encompassed a wide range of activities. The various tasks included definition of a target audience, actual materials distributed, production of the Technical Literature Update, creation of country files, and processing of information requests.

Definition of Audience

The initial phase of information dissemination involved defining an audience for whom services would be available. As the basic emphasis during the first two project years was accumulating a workable collection and gearing the Center toward a fully operational status, the original audience targeted for dissemination activities was relatively narrow in scope. This group mainly consisted of PRITECH staff, field personnel, and health personnel at AID/Washington and USAID Missions. The Information Center sent out project promotional items (e.g., folders and brochures) and small, specified mailings to these groups. As emphasis shifted from operational planning and logistics to actual performance of activities, the concept of broadening the clientele began to be addressed.

During the second project year, the Center expanded its clientele to include private voluntary organizations (PVOs), frequent PRITECH consultants, Ministry of Health (MOH) officials, and other in-country institutions and individuals. As a result of this expansive policy, the Center's mailing list showed substantial growth as increasing numbers of names were added. PRITECH's exhibits at conferences, such as ICORT II in December 1985, also increased the Center's exposure and thus contributed to broadening the clientele. By the midpoint of PY5, the list numbered over 1,000 names and included a variety of institutions and individuals interested in CDD/ORT activities.

Distributed Materials

Distribution of materials took several forms. Within the first two project years, circulation consisted of responding to specific requests and a series of planned mailings. Eleven ORT Task Force mailings, which provided technical literature to ORT Task Force members, were completed by PY3. In addition, the Center also completed five "mini-library" mailings to USAID Missions. The materials selected for these mission mailings generally consisted of ten to twelve key documents focusing on CDD, ORT, or related primary-health-care issues. Following the production and distribution of the first annotated bibliography at the end of PY2, pre-selected mailings of this sort were no longer carried out on a regular basis.

The bibliography, which was sent to approximately 275 institutions and individuals, allowed interested parties to request specific documents for themselves, thus virtually eliminating the need

for sending pre-selected materials. The Center also began producing a monthly "acquisitions alert" with a listing of all incoming materials made available to PRITECH staff, field representatives, and USAID Missions. This served as a monthly mini-bibliography from which the most recent documents could be requested. By November 1987, the Monthly Acquisitions List became an official Information Center product with a growing circulation.

The Information Center also disseminated the two Annual Technical Updates produced by the project. The first Update, entitled Infant and Child Survival Technologies, was published in September 1984. Manual for Assessment and Planning of National ORT Programs, the second Update, was distributed at the December 1985 ICORT II meeting in Washington, D.C. Following the amendment of the PRITECH I contract, the Annual Technical Update was eliminated in favor of a series of ORT Technical Reports which were to be distributed to USAID health officers and their counterparts.

As a means of integrating itself into the project's technical activities in PY3, the Center became responsible for producing and distributing PRITECH reports. This activity entailed editing drafts, sending approved/finalized reports for printing and binding, and then distributing copies to persons on a mailing list including USAID Missions and AID/Washington. This function became a regular activity which continued throughout PRITECH I and into PRITECH II. The only notable alteration occurred in PY5, when the Center shifted responsibility for editing the reports to the Administrative Division.

The Technical Literature Update

Production and dissemination of the Technical Literature Update, an item that was not contractually mandated became an extremely successful activity. The first issues consisted of an annotated bibliography of eight to ten technical articles with occasional editorial commentaries provided by the PRITECH Technical Director. Recipients of the TLU included USAID Missions, MOH personnel, information facilities in PRITECH intervention countries, and PVOs. As the response to this service was positive -- requests doubled in the last two quarters of PY3 -- the TLU was continued as an Information Center publication. It was modified stylistically to include a letterhead format and formal abstracts provided by the Information Center coupled with comments from the Technical Director. As PRITECH country representatives began sharing the issues with their counterparts and

these people with yet others, TLU readership expanded exponentially. Information requests generated from the TLU also increased, making it a valuable tool to promote the Information Center's collection. Towards the end of the PY5, the number of recipients totalled well over 2,500, showing an 80% increase from October 1987 to March 1988. The TLU became a contractual part of the PRITECH II Project as a result of this success. It is now translated into French and Spanish and the number of subscribers continues to grow steadily.

Country Files

In order to provide easy access to country-specific information, the Information Center created and maintained files of materials on countries in which PRITECH was working. These country files contained background information, program evaluations, technical documents, and any other pertinent materials. PRITECH staff and consultants could utilize the materials in writing reports or proposals, in preparation for traveling to a certain country, or for general knowledge on disease control or ORT activities within particular countries. These files were updated regularly as more recent information was received and as PRITECH began operations in new countries. Maintaining the country files remained an Information Center activity throughout PRITECH I and continued into PRITECH II.

Information Requests

Responding to information requests comprised a major portion of the information-services component. Following the physical establishment of the Information Center and the first ICORT conference in December 1983, the Center processed 25 requests. In the course of the next few months, emphasis was placed on increasing AID/Washington and USAID Missions' awareness of PRITECH informational services. The Center gained much publicity as a result of dissemination activities such as the ORT Task Force and "mini-library" mailings, exhibits at conferences, distribution of PRITECH reports, and the Technical Literature Update. The production and dissemination of the first annotated bibliography and the subsequent issuing of the Monthly Acquisitions Lists provided a steady stream of requests. The cataloging tools were refined and an assistant was added to the Center's staff to help the Director in handling the increasing workload. Finally, in PY4 the bibliographical software system, CONDOR, was replaced by the SCI-Mate system.

SCI-Mate, which had superior document handling capabilities, allowed better management of the Center's information collection as well as its growing mailing list. Approximately 195 requests were processed in PY4 as compared to the 25 in PY1 and in the final project year the Information Center was handling 10 to 15 inquiries per month. Thus, responding to requests in a prompt, professional manner evolved as a top priority within the information-services component.

(C) EXCHANGE RELATIONSHIPS

The Information Center's outreach and exchange activities began almost as soon as the facility itself was established. The initial trips to comparable centers provided a foundation on which to build PRITECH's information-services component. In terms of outreach, these visits publicized the new center by making other institutions aware of its existence.

In PY3, the Information Center began to explore exchange relationships with other institutions. The Center sent letters to ORANA (Senegal) and INCAP (Guatemala) describing PRITECH's information services and requesting document exchanges for mutual benefit. During the course of the project, the PRITECH Information Center provided document support to both these organizations. In addition, the Center provided short-term technical assistance in work planning, budgeting, and evaluation to ORANA, as its CDD Information Center had just been established. PRITECH maintained relationships with these organizations with the goal of developing sustainable local resource centers capable of delivering informational services to CDD field programs.

Other exchange relationships with related international health and research organizations were also explored. Among the institutions contacted were the REACH Project, Johns Hopkins University, the American Public Health Association Clearinghouse on Infant Feeding and Maternal Nutrition, the Pan American Health Organization, the World Health Organization, and the International Center for Diarrheal Disease Research, Bangladesh. Topics discussed included information-exchange coordination, document acquisition, and possible computer coordination with SCI-Mate software systems. These outreach activities allowed the PRITECH Information Center to enhance its document collection and refine its operational methods. In exchange, PRITECH offered its growing resources to these organizations for use in research projects and field activities.

(D) CREATING AND DISTRIBUTION OF PROMOTIONAL MATERIALS

In addition to its other duties, the Information Center produced and disseminated promotional materials for the project. These activities were emphasized in the first two years in order to publicize PRITECH and evoke interest in the project. The first item completed was a color folder promoting ORT, immunization, and PRITECH. The folders were printed in English, French, and Spanish and were taken to Africa in January 1984, for the first promotional visit. A second product, the Manual for Assessment and Planning of National ORT Programs, presented methodologies and guidelines for country assessments and was the outcome of the ICORT I Conference. The material was designed to develop strategies for field visits and was tested in Pakistan, Ecuador, and Peru. In PY2, the first PRITECH brochure was completed and distributed. Created in a fold-out format, it outlined PRITECH's various objectives and activities.

(E) CONFERENCES

The Information Center was also responsible for providing technical agendas and, together with the Systems Support component of the Project, logistical support for PRITECH conferences. The PRITECH I Project sponsored and organized two major regional conferences on Oral Rehydration Therapy (in Africa and Asia), assisted in the organization of a sub-regional conference on ORT in Colombia, and provided logistical and technical support for the ICORT II conference. Additionally, PRITECH routinely sent consultants and staff members to conferences hosted by AID, Ministries of Health, and Non-Governmental Organizations in order to provide those conferences with required technical expertise.

Regional and sub-regional conferences organized by PRITECH were actively intended to be follow-up activities to the first ICORT conference held in Washington, D.C., in 1983. The PRITECH conferences emphasized the positive impact of ICORT and, on a regional level, informed a variety of Ministry of Health officials and public-health experts of the benefits of ORT and recent developments in the field. These conferences included:

- Conference on ORT in Asia, Dhaka, Bangladesh, March, 1985: Organized in conjunction with the International Centre for Diarrheal Disease Research, Bangladesh (ICDDR-B), this

conference built on ten years of experience of CDD programs in Asia. A total of 86 participants from 13 Asian countries and interested international organizations attended.

- Conference on ORT in Africa, Lilongwe, Malawi, March, 1985: This conference emphasized the potential of ORT in reducing infant mortality in Africa and lessons learned concerning the start-up and management of CDD programs. Over 160 participants from 30 countries participated.

- PRITECH collaborated in a joint PAHO/AID/UNICEF Sub-regional Meeting of the Andean Countries on Management and Training Aspects of Control of Diarrheal Diseases in Cali, Colombia, July 27-31, 1987. This meeting was a follow-up to one held in May, 1986 in Quito, Ecuador, to bring together policy makers and national directors of CDD programs from five Andean countries -- Peru, Bolivia, Colombia, Venezuela, and Ecuador.

Overall, these regional and sub-regional conferences were highly effective in increasing the exposure of ORT and in demonstrating how functional CDD programs could be established. Building on the early successes of ORT in the late 1970s and early 1980s, these conferences achieved their purpose of disseminating available information to a wider audience.

PRITECH also provided logistical and technical support for a meeting of USAID HPN Officers from the Africa Region, held in Gettysburg, Pennsylvania in June, 1984. The PRITECH subcontractor responsible for organizing conferences at that time, Jeffalyn Johnson & Associates (JJ&A), did not have the capability to provide adequate technical input for this conference. The efforts of JJ&A were therefore supplemented by a PRITECH staff member working half-time over six weeks. This level of support stretched PRITECH's manpower resources considerably.

In addition, PRITECH hosted a conference for PRITECH/Washington staff and country representatives in January 1988 in Easton, Maryland. This conference served to bring PRITECH staff members up to date on technical developments in CDD program management, and to ensure that PRITECH's country programs would be consistently managed from administrative and technical viewpoints.

In summary, the conference component of the PRITECH I project provided a valuable vehicle for disseminating information about ORT at a time when there was a large and interested audience. The conference component also provided technical expertise to conferences hosted by Ministries of Health and a variety of international organizations, and provided effective technical and logistical support for conferences hosted by AID.

III. CONCLUSION: LESSONS LEARNED

The most significant lesson learned during PRITECH I was that a great need for CDD information did exist, as evidenced by the increasing demand for documents, especially from USAID Missions. The growth of the TLU readership indicated that a demand for technical literature on ORT/CDD also existed. It was obvious, therefore, that if such materials were made readily available, individuals and institutions would request and utilize them. In addition, they would share the materials received with colleagues, thus contributing to increased demand.

A second lesson involved adapting information services to shifts in the project's overall focus as well as in information activities. This meant that the Information Center had to stay abreast of PRITECH's technical and operational activities in order to acquire and distribute relevant materials. For example, when immunization was no longer within the project's scope, the Center placed greater emphasis on CDD/ORT information. The production of the TLU indicated that the Information Center was taking a more proactive role and was increasing its involvement in the project's technical activities. In distributing the monthly acquisition lists and the annotated bibliography, the Center displayed its increasing capabilities in dissemination.

The fact that the Information Center did not become fully operational until PY3 was due to an overly ambitious schedule, and an initial lack of knowledge about what the task entailed. As the department originally functioned with only one staff person, establishing the Center and rendering it fully operational took considerable time. Therefore, certain planned activities occasionally fell behind because the time necessary to complete them exceeded expectations. Attention also was diverted from planned activities at times as the Center became involved in handling more ad hoc requests and in working on newly developed projects. During the later years, backlogs were offset by the addition of two information assistants. With extra staff in place, the Director also had more

time to pursue new directions for the Center. Over the span of PRITECH I, it appears that the Information Center became better at assessing its capabilities and thus was able to manage its time more efficiently.

The Information Center also learned that acquiring documents from developing countries was more difficult than anticipated. Because of the lack of resources and manpower of overseas information centers, these centers were only able to send a limited number of documents to PRITECH. In exchange, the PRITECH Information Center sent numerous documents to these centers in response to their requests. These information exchanges therefore became one of the Center's main channels for outreach.

In reviewing the information-services component, it is obvious that the department became an essential part of the PRITECH Project. From its beginnings as a rather small division, the Information Center grew and improved significantly in several respects, especially in data collection and management and in dissemination of materials. By the final years of the project, the Center operated in a systematic fashion which allowed it to identify and respond to the project's informational needs as well as to the needs of many other individuals and institutions.