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FIRST EVALUATION:
ORAL REHYDRATION THERAPY,
GROWTH MONITORING AND EDUCATION PROJECT
INCAP/ROCAP

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TECHNOLOGIES FOR PRIMARY HEALTH CARE (PRITECH) PROJECT
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REPORT OUTLINE

I. SUMMARY DESCRIPTION OF THE SCOPE OF WORK (include changes made to initial SOW)

To evaluate the INCAP Child Survival project which relates mainly to Oral Rehydration Therapy, Growth Monitoring, and Feeding/Nutrition programs.

This project is located in INCAP at the center, but has in-puts throughout the Central American region. It was the responsibility of the evaluation team to arrive at recommendations to improve the project's own scope of work.

I. PURPOSE(S) OF THE PROJECT

The project is intended to reduce infant and young child mortality and morbidity throughout Central America and Panama through Primaryt Health Care interventions. The evaluation team was asked to conduct a pre- midterm evaluation on the various as aspects of this very broad 5 year project/

III. METHODOLOGY

Primarily through reading of the voluminous documents, protocols, modules, and educational materials and reports of conferences etc., and through interviews with the main participants in INCAP. our tema was to arrive at major recommendations. INCAP had called into Guatemala City many of their major field personnel, and our team had the opportunity to speak with them. There were also field visits to outlying field sites./

IV. SUMMARY OF OBSERVATIONS AND FINDINGS

The final report is to be collated by Polly Harrison and Peter Cross in Honduras, and I have sent my portion down to them for editing and incorporation into the final report. Attached you will find a copy of my written contributions.

V. MAIN CONCLUSIONS

There was idetified a need for INCAP to be more focused in all of its efforts with regard to Child Survival. There was a recommnedation to improve their management and have a more coordinated approach, with selectivity and prioritization throughout the the project, including planning, training, education, operations research, and report-writing. INCAP has attempted to do everything, and with such a broad scope and wide geographic area, this becomes very difficult. We requested that they keep it simple & short.

VI. PRIMARY RECOMMENDATIONS

INCAP is to become more proactive and coordinate the Child Survival activities throughout the region. The HIS should become focused anf more efficient. Growth monitoring should become the central theme for operations research, and priorities must be set. A Training and Education Coordinator should be hired, as well as a Project Operations Officer to monitor and coordinate all aspects of the project. Communications must be improved, and management systems should be developed for planning, reporting & quality conti

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The evaluation team would like to express its sincere gratitude to its principal counterparts, Dr. Hernan Delgado, Chief of the Health and Nutrition Division at INCAP, and to Ms. Elena Brineman, General Development Officer of AID/ROCAP. While each and every individual mentioned in Appendix IV deserves special thanks for his/her valuable contribution, we would like to especially recognize Dr. Delgado and Ms. Brineman's dedication and commitment to health and child survival in Central America and Panama. Their expertise and efforts are an added asset to the project, without which, the project may not have had the same successful outcome.

In the process of conducting this evaluation, we were very impressed with the dedication and energy of the Project's staff. In fact, this was a strong motivating force behind the special effort we made to develop and document our recommendations concerning ways to further strengthen the Project. We hope that at least some of these recommendations may prove useful and that the Project continues to develop its ability to improve Child Survival in the subregion.

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ACRONYMS

AED	Academy for Educational Development
AFP	Appropriate Feeding Practices
AID	Agency for International Development (AID/W=AID/Washington) (also USAID)
ARI	Acute Respiratory Infections (IRA)
ASI	Advances in Child Survival (INCAP Bulletin)
CA/P	Central America and Panama
CDD	Control of Diarrheal Disease (CECD)
CLAP	Latin American Perinatology Center
COMADRONA	Traditional Midwife (trained or untrained)
COSUDER	Guatemalan Association for Coordination for Supervision and Development
CP	Condition Precedent
CS	Child Survival (SI)
CSRS	Child Survival Reporting System
EPI	Expanded Program on Immunizations (PAI)
GM	Growth Monitoring (MC)
HIS	Health Information System
HR/LBW	High Risk Related to Low Birth Weight
IGSS	Guatemala Social Security Institute
INCAP	Nutrition Institute for Central America and Panama
JHU	The Johns Hopkins University
LBW	Low Birth Weight
LOG FRAME	Logical Framework (from AID Project Paper)
M and E	Monitoring and Evaluation
MIS	Management Information System
MCH	Maternal Child Health

ACRONYMS (CONTINUED)

MOH	Ministry of Health
MSH	Management Sciences for Health
MSP(AS)	Ministry of Health (and Social Welfare)
NGO	Non-Governmental Organization
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
ORU	Oral Rehydration Unit
PAHO	Pan American Health Organization (OPS)
PASCAP	Program for Training in Health in Central America and Panama
PATH	The Program for Appropriate Technology in Health
PHC	Primary Health Care
PP	Project Paper
PRICOR	Primary Health Care Operations Research
PRITECH	Technologies for Primary Health Care
PROAG	Project Agreement
PVO	Private Voluntary Organization
ROCAP	Regional Office for Central America and Panama (AID)
S&T/H	(Bureau of) Science and Technology /Health Division (AID/W)
SOW	Scope of Work
TA	Technical Assistance
TSR	Rural Health Technician
TRO/MC/EAPS	Oral Rehydration Therapy/Growth Monitoring/Education in Primary Health Care Project (Project 596-0115)
USAC	San Carlos University
WHO	World Health Organization (OMS)

EXECUTIVE SUMMARY

The general purpose of this evaluation was to assess the progress made during the first 21 months of the "Oral Rehydration Therapy, Growth Monitoring and Education Project" being implemented by INCAP with substantial financial assistance form AID/ROCAP and to make recommendations on how implementation could be strengthened. The five-person evaluation team included: (1) an expert in primary health care service delivery, (2) a management expert, (3) an education and training specialist, (4) a child survival specialist, and (5) an anthropologist.

The team worked during the first two weeks of November in Guatemala. Principal activities included observation of prepared presentations by project personnel, individual interviews with project personnel and selected government officials, visits to two project field sites, review of voluminous project documentation, and internal discussions among team members. An iterative strategy evolved in which repeated discussions with the INCAP Project Coordinator and ROCAP Project Manager focused on the development of a feasible, acceptable set of recommendations designed to strengthen the Project.

In summary, the evaluation team found a highly motivated, young and energetic project staff led by a highly capable expert in the field of nutrition, ORT and child survival. The team found that there had been a notable increase in INCAP's acceptance as a source of technical expertise and collaboration in the Ministries of Health in the subregion, due partially to the permanent positioning of project staff members in the countries and to the decreasing emphasis on basic research which the Project encourages. The team found that many documents and guides had been produced and that many training courses, workshops, seminars and meetings had been supported by the Project.

The evaluation team concluded that, despite the unanticipated increase in donor support for Child Survival in the subregion, the Project and INCAP could and should continue to play a key role in achieving the goal and purposes of the Project. The team identified a need to focus the Project's limited resources on a more restricted set of priority activities, thereby facilitating increased attention to the quality of project outputs. To address this need, the team has formulated five priority technical recommendations concerning the scope and content of the Project's activities. The team also suggests increased resources, both human and financial, devoted to developing and implementing monitoring and management systems for the Project. Three recommendations (#6 - #8) identify ways in which the internal management of the Project can be further developed.

In general, the team restricted itself to the eight priority recommendations listed below. Other, more specific recommendations, are contained in the indepth study of research activities (Section VI), in the notes on the mothers' ideal KAP and audiovisual aid (Appendix VIII) and in the draft job descriptions (Appendix X).

RECOMMENDATION 1: REGIONAL COORDINATION

INCAP should develop and promote its role as a coordinating agency in the field of Child Survival in Central America and Panama.

RECOMMENDATION 2: STRENGTHENED INFORMATION SYSTEMS FOCUS

In the field of management INCAP should consider giving priority to information systems, focusing its efforts on innovative initiatives like sentinel areas and sites and efficiency criteria, while keeping in reserve some funds for management training for which other institutions will be contracted when demand warrants their technical collaboration.

RECOMMENDATION 3: PRIVATE SECTOR

INCAP should consider establishing clear priorities in this area including: (1) training, particularly in oral rehydration therapy, for private sector pharmacists, doctors and nurses, for traditional birth attendants, and for personnel of Private Voluntary Organizations (PVOs); (2) the organization of an annual subregional workshop to exchange information and experiences regarding social marketing of ORS; (3) program for ORS being marketed in the private sector; and (4) contracting with individuals and other institutions to satisfy the demand for other technical collaboration.

RECOMMENDATION 4: RESEARCH

INCAP should consider developing an annual plan for expanding its operations research (OR) capacity, using the implementation of growth promotion as a central theme for OR investigations in Guatemala and other countries. A limited amount of funds should be reserved for basic research to supplement existing knowledge, when and if critical gaps are identified, particularly in the area of growth promotion.

RECOMMENDATION 5: TRAINING AND EDUCATION

INCAP should consider employing a Training and Education Coordinator qualified through training and experience in (1) adult education, (2) competency based training, (3) instructional design, (4) instructional materials development, and (5) education evaluation to direct project activities in education, training and information dissemination.

RECOMMENDATION 6: PROJECT OPERATIONS TEAM

INCAP should consider forming a Project Operations Team which would have the responsibility for coordinating and monitoring all technical and financial activities at the operational level. The team would consist of the Project Coordinator, two Technical Coordinators and a Project Operations Officer.

RECOMMENDATION 7: QUARTERLY PROJECT REVIEW MEETINGS

INCAP should consider holding one or two-day quarterly project review meetings with all project staff including country liaison officials, in order to review and evaluate the past quarter's activities, to discuss specific plans for the next quarter, and to facilitate communications and integration among components.

RECOMMENDATION 8: SENIOR MANAGEMENT EXPERT

INCAP and AID/ROCAP should consider recruiting an experienced and qualified maragement advisor to work full-time for a minimum of two years with the Project Operations Team on the further development of management systems in the areas of planning, reporting, communications and quality control for the Project.

I. INTRODUCTION

A. PURPOSE OF THE EVALUATION

Project 596-0115, supported by an AID grant of US$8 million, was signed on December 14, 1984. Expected completion date is November 30, 1989. The project's goal is to reduce infant or child mortality and eliminate malnutrition in Central America and Panama. The purpose of this project is to increase the effective use of oral rehydration therapy, growth monitoring and appropriate related feeding practices. To fulfill this purpose the Project Grant Agreement has considered financing activities in the following areas:

- Promotion of effective plans and strategies;
- 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.

The purpose of this evaluation described in the Scope of Work is as follows:

> "INCAP has now largely completed Phase I of the ORT, Growth Monitoring, and Education Project, 596-0115, and planning for the first year of phase II. During project design, an evaluation was scheduled at this point to assess the adequacy of project planning, organization, and management, and to provide guidance in moving forward with Phase II activities. The objective of the evaluation will thus be to assist ROCAP and INCAP in the evaluation of Phase I accomplishments and of Phase II planning for the Project. In addition, the evaluation will assess progress toward the project purpose and recommend measures, if needed, to facilitate achievement of that purpose."

B. STRATEGY OF THE EVALUATION

The team perceived this objective as beneficial and constructive. While searching for problems and bottlenecks, the team did not emphasize ways to improve the Project. The evaluation thus became a joint problem-solving venture which involved INCAP management and staff in issue identification, analysis, and in the definition of possible alternative solutions. As a result, by the time the evaluation was completed, consensus had been reached among INCAP and ROCAP project management and the team on the eight major recommendations presented below.

C. SCOPE OF WORK

The evaluation team was organized to review:

- The status of project planning, coordination, management and administration;
- The status and adequacy of output activities that have been carried out under Phase I, as outlined in the Project Paper;
- INCAP and country team organization and preparation for Phase II activities;
- The status of baseline information for evaluating country programs, project goals and purpose;
- The adequacy and specificity of project purpose indicators;
- The status of Phase II implementation plans and progress on research activities whose results will be incorporated into technical and educational packages during the second phase of the project; and
- The adequacy, timeliness and effectiveness of outside consultants and technical collaboration with the Project.

The evaluation team also developed a draft monitoring and evaluation plan for the Project and identified necessary data required to track progress toward achieving the project purpose.

D. THE TEAM

The consultant team was composed of the following (see Appendix II for summary biodata):

- An expert in primary health care service delivery who served as the team coordinator (Cross);
- A management expert (Crone Coburn);
- An education and training specialist (Health); and
- A Child Survival specialist (Brown).

The team was joined by the PRITECH Project Backstop (Harrison) who provided general guidance and examined the anthropological research components.

The team worked under the general guidance of the AID/ROCAP Director. The AID liaison officer was Ms. Elena Brineman, the ROCAP Food and Nutrition Advisor and now the ROCAP General Development Officer. Principal counterparts were the INCAP Project Coordinator, Dr. Hernan Delgado, and the INCAP project team.

E. METHODOLOGY

The evaluation was carried out between October 29 and November 23; two of those weeks were spent in Guatemala. The major activities included:

- A review of project documentation prior to arrival in the field, as well as during the field visit.
- The identification of evaluation issues, through a repetitive process involving the INCAP project team, AID/ROCAP management, the PRITECH Project backstop and a consultant visit by Dr. Jon Rohde prior to the beginning of the formal evaluation.
- Summary presentations to the evaluation team by the INCAP Project Coordinator, and individual presentations by managers and technicians responsible for project administration and each substantive component.
- Discussions with the INCAP Country Liaison Officers posted in Costa Rica, El Salvador, Honduras and Panama.
- Interviews with Ministry of Health and donor agency officials including AID, UNICEF, and PAHO in Guatemala, Honduras, and Washington, D.C. (A site visit scheduled to El Salvador was cancelled due to the recent earthquake.)
- Brief site visits to the oral rehydration unit at Roosevelt Hospital and the sentinel area around El Milagro Health Center.
- Individual debriefings with the INCAP Project Coordinator and ROCAP Project Manager, as well as group debriefings with the INCAP project team and with the ROCAP Director and Deputy Director.

The Project is large and complex and the level of effort provided for this evaluation was not adequate enough. The team tried, therefore, to follow what turned out to be its principal recommendation to INCAP, that is to concentrate only on priorities.

II. STATUS OF PROJECT

A. STATUS OF PROJECT PLANNING, MANAGEMENT AND ADMINISTRATION

1. Findings

Much has been accomplished during the two years that have elapsed since the Project Grant Agreement was signed. In particular, a young, dedicated and energetic staff has been assembled. A wide range of basic and anthropologic research activities have been planned and, in some cases, initiated. A large amount of documentation is produced each quarter. Furthermore, and most importantly, INCAP is increasingly seen as a valuable resource by Ministries of Health in Central America and Panama. The appointment of country liaison officers appears to have been of critical significance in this regard and warrants not only commendation, but also follow-up. Recommendation 1 presents the evaluation team's thoughts on how to further strengthen INCAP's role as a coordinator of resources to the Ministries of Health.

The team found that accomplishments, to date, have been 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. Since most project financed technical documentation is still in the form of drafts, it would be premature to judge its quality. It does appear, however, that the Project's priorities should progress through a natural evolution, from the comprehensiveness of Phase I activities to narrowed priorities in Phase II. Thus, in Phase II it is natural to expect much greater emphasis on the analysis and interpretation of data than on its collection. Similarly, in Phase II one can expect to see an emphasis on refinement of training and educational materials, rather than on the maintenance of the current rate of production of new materials.

The team found that a remarkable degree of operating responsibility and authority has been delegated to project staff. Various project 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 infrequently. Delegation in a project such as this one requires management systems to insure coordination among the operationally independent but conceptually interdependent components.

2. Conclusions

The team believes that project implementation would be strengthened by the further development of internal management systems, the immediate purpose of which would be to assure that all components collaborate and contribute to the achievement of the Project's goal and purposes. The mutually interdependent nature of project components suggests that all component and project chiefs require a sound understanding of the Project's objectives and design.

This understanding can be further developed in the next phase of the Project. Recommendations 6, 7, and 8 suggest actions which can be taken to substantially accelerate the development and implementation of the Project's internal management systems.

Prioritization, analysis and interpretation are activities that appear to require greater emphasis during the next phase of the Project. Health system managers in Central America do not lack documentation in their office. Any visit to any office of any Ministry of Health in the subregion reveals an abundance of documentation. These managers need less, not more, documentation. Quality not quantity is needed. Short and simple manuals are needed. Nonessential material should be eliminated. Judgments must be made in this process, suggesting that, in the process of filling the remaining project positions, special efforts be made to hire personnel with sufficient experience to make sound judgments with respect to quality and technical priorities. Recommendations 5, 6, and 8 suggest the acquisition of new human resources, and Appendix X provides draft job descriptions. The evaluation team feels that a successful attempt to recruit personnel who meet the qualifications presented in the job descriptions will yield great benefits in improved project management and in the Project's impact on child survival services in the subregion. Personnel with the recommended experience will enable a more rigorous selection of priorities during the remaining life of the Project.

To be an effective change agent in development, one shouldn't be comprehensive, but rather keep it short and simple.

B. ADEQUACY OF OUTPUT ACTIVITIES AND PREPARATION FOR PHASE II

1. Findings

As noted in the previous section, project management systems have evolved in a somewhat ad hoc fashion. This observation applies to project reporting. The principal regular report is a quarterly report on the Project's activities. The structure of this report has been changed every quarter which has resulted in a marked loss in continuity. While they satisfy AID requirements, the quarterly reports appear to provide little substantive support to the Project's managers. Clear, feasible recommendations are not generally made in these reports. A major focus of the recommended Project Operations Team and of the Senior Management Expert is on improved monitoring, analysis and reporting of project activities. (See Recommendations 6 and 8.)

Since the quarterly reports do not maintain a constant set of activity categories related to either the Project Paper or to annual Action Plans, the evaluation team found it difficult to use these reports to assess the degree to which planned activities have been executed. In addition, unprogrammed activities are generally listed in the report, but without noting their unprogrammed nature. The most recent quarterly reports have been improved by the addition of a summary table of achievements. Four improvements could increase the usefulness of the quarterly reports for future evaluation teams and project management:

- The reports require an improved summary and analysis of achievements, setbacks and problems and recommendations for future actions.

- The reports require a standard nomenclature that follows the nomenclature of the Logical Framework in the Project Paper. (The Logical Framework should be formally adjusted periodically.)

- Key terms require definition. (For example, how do courses, workshops, seminars, and meetings differ?)

- Monitoring support could improve if Phase I activities were distinguished from Phase II activities.

2. Conclusions

Despite the difficulties involved, the evaluation team attempted a serious analysis of project outputs, the details of which are provided in Section V, "Output Review." That section presents a log of outputs as reported in the quarterly reports. Table 2 presents a summary by project component of the detailed listing of outputs which is found in Table 3. A comparative analysis yields some interesting observations.

When the mass of data in Table 3 is compared with the more austere Table 2, it appears that the Project has already moved into the implementation phase in Components 3 (skills development) and 4 (information dissemination). Component 3, however, proceeded without the full development of baseline material. Component 4 proceeded without its regional information dissemination plan. Both have been productive components as indicated by the number of seminars given and the quantity of materials distributed, but now progress should be consolidated using the stipulated planning mechanisms.

The integrated "Condiciones de Eficiencia" model has, with relative speed, assisted most countries to evaluate their health delivery systems. This is a notable achievement that involved a high degree of host country government participation. The integrated approach has, however, resulted in some loopholes, primarily in the areas of finance, ORS production and sales, mass communications and information systems.

The evaluation team finds the existence of some loopholes to be acceptable, given INCAP's strengths and propensities. If these areas are to be discarded, however, the decision should be documented in a formal exchange of letters. Furthermore, INCAP can appropriately provide quality support in information systems, particularly in sentinel systems, in overall monitoring and evaluation strategies and in survey design and implementation. It seems clear that a focus of INCAP's management efforts on the area of health information systems (see Recommendation 2) would build on several current activities in areas where INCAP is particularly strong. Work on other management systems, except evaluative work through the "Condiciones" methodology, might be best left for the large AID funded bilateral projects.

Little has been done under Component 5 (ORS availability and distribution) and the team feels this component should be formally redirected, as discussed in Recommendation 3.

In summary, the Project has discharged many of its commitments in the Planning Phase and has proceeded into the implementation phase. It can be generally diagnosed as ready for Phase II, provided the team's concerns expressed in its eight recommendations are addressed.

C. MONITORING AND EVALUATION

1. Findings

Monitoring and evaluation activities frequently have two principal applications. First, the information generated can be used by project personnel to support planning and implementation decisions. Second, the information may be used to justify project funding to actual or potential sources of financing. The first application requires more detailed information that focuses on the expenditure of resources and on the outputs of products. Reporting intervals are typically very short; e.g., weekly or monthly. The second application focuses on the achievement of longer team objectives and goals. This section focuses on the first application. The needs of the second are discussed in Section III.

INCAP prepares an annual action plan and quarterly reports. The 1986 action plan contains a description of the activities to be undertaken during 1986. This document appeared to be more useful for meeting contractual needs than for assisting the Project Coordinator and other project managers to manage the Project. INCAP also prepares quarterly reports which provide an exhaustive list of the activities and documents financed by the Project. This document satisfies the need for historical documentation on how project funds were spent. The Project Coordinator and his staff also produced an annual report which provided the evaluation team with a historical summary of activities undertaken by the Project.

Recommendation 7 suggests regular quarterly Project review meetings attended by all project staff to review and adjust draft quarterly reports and to adjust annual action plans.

2. Conclusions

Further development of routine reporting to serve internal management and coordination needs would assist the Project Coordinator and his staff. It would be useful to project managers, if the action plan included an explicit linkage between activities (outputs) and the Project's purposes. In cases where human or financial resources are constrained, the Project Coordinator would then have a better basis for allocating those resources to achieve maximum impact on the Project's purposes.

The Project Coordinator also needs an action plan that, as clearly as possible, identifies what activities are to be undertaken, when they are to commence and terminate, and who is to be responsible. Where applicable,

quantitative targets should be specified, e.g., "20 trainees given a two-week course in ORT in July." Other, similar projects have found it useful to summarize planned activities on a simple Gantt chart which can be maintained and updated periodically on a computer. The Gantt chart could become the basis for regular monthly reports which graphically compares programmed activities with actual activities. Project managers could then provide additional support or resources to those activities that are delayed. The recommended Project Operations Officer and Senior Management Expert should be responsible for the development of improved, standardized reporting systems.

There is also a need to further develop the means to assess the quality of the Project's outputs: trained personnel, manuals, surveys, seminars, plans, technical collaboration, etc. In future plans, specifications can be developed for the outputs that would facilitate quality control.

Monitoring and evaluation, particularly for management purposes, requires a substantial investment in human resources. Recommendations 6, 7 and 8 would each strengthen Project operations in this area and enable it to better undertake Phase II activities.

D. STATUS OF RESEARCH

1. Findings

The types of research being carried out under the Project fall into two major, not totally discrete, categories: basic and applied research. The former is distinguished by its clinical components and focuses on the etiologies and case management of diarrheal disease and the morbidity and mortality associated with low birth weight. The latter consists of the anthropologic work, surveys, systems studies, sentinel systems and general monitoring and evaluation. (The last two are discussed in the context of health and management information systems.)

The basic research component has been delayed due largely to peer review and resultant design modification. While this has improved the quality and utility of the research, it has also increased its cost. Bureaucratic problems have also caused delays. Still, this component is proceeding in a generally effective and well-managed fashion, and the close technical working relationship enjoyed with investigators from John Hopkins should be enhanced by the imminent arrival of the Child Survival Fellow, Dr. A. Bartlett.

Eleven of the 18 planned ethnographic case studies in the anthropology component have been done in three countries (Guatemala, El Salvador and Panama). Costa Rica and Honduras have just recently decided to do such research. There has been insufficient time and staff to do the planned focus group work. The strategy for follow-on focus groups may well have been premature since there have been no analyses or summaries of the work done so far and no identification of knowledge gaps, e.g., perceptions of growth and development, provider KAP and provider-client interaction.

As discussed in much greater detail in Section VI, enough anthropologic data are now available in all countries to provide substantial preliminary

appreciation of the situation at the household and community levels with regard to Child Survival KAP, especially in diarrhea management and nutrition. However, with scant exception, these data do not seem to have been incorporated into Child Survival plans or into the design of training approaches and materials. The main reasons include, on the user side, a limited view of the applicability of anthropologic findings which derives from, on the provider side, insufficient attention to the analysis and presentation or the marketing of the results and findings.

2. Conclusions

There are three areas where effectiveness of the research component could be strengthened: (1) coordination, (2) management, and (3) presentation of results. Coordination could improve through the formation of the human resources working group, and some small but potentially useful management steps are identified in Section VI of this report, which presents a detailed discussion of the evaluation team's findings in the area of research. Presentation of results and conclusions are crucial, as the Project passes from Phase I to II. This might best occur through the preparation of a document, or documents, which summarizes the main findings from the various anthropologic studies, extracting critical insights and identifying implications for each project component. This document should be widely disseminated and used in training. (See Section VI for a detailed discussion and specific recommendations.) A similar exercise could be undertaken for the efficiency criteria studies.

While much basic research has been initiated and some planned, some of it will have an impact on project purposes and goals only in the long-term, i.e., not during the lifetime of the Project. Operations research, which should have a much quicker and more cost-effective impact, has received relatively little attention. Operations research appears to merit more financial and human resources, even though this may mean that certain basic research activities cannot be expanded and might even have to be curtailed. The evaluation team feels that research should be focused on issues of technology application, and its principal research recommendation (Recommendation 4) presents specific ideas on how operations research could be used to address a variety of issues affecting the use of one key technology -- growth monitoring for child survival.

E. EXTERNAL TECHNICAL COLLABORATION: ADEQUACY, TIMELINESS AND EFFECTIVENESS

1. Findings

The project design contemplated contracting with a U.S. institution which would provide a high-level U.S. or international long-term advisor and approximately 12 months of highly specialized U.S. or international short-term consultancy as part of a package of technical support to the Project. The long-term advisor was expected to be a physician with experience in research, case management, ORT, growth monitoring and health and nutrition education.

For several reasons, the position was not filled and, instead, a series of short-term consultants collaborated with the various components of the Project. These consultancies are listed in chronological order in Appendix VII in two large groupings: (1) miscellaneous sources funded by the Project which include independent consultants, WHO, Manoff International, PAHO, and PRICOR; and (2) the PRITECH Project which is centrally funded by AID, managed by MSH, and includes collaboration from AED, PATH and John Hopkins University.

The technical collaboration provided appears to have been generally of high quality and well utilized. The Project is large and very complex, however, and involves INCAP in a number of areas in which it has relatively limited experience. This, together with the fact that technical collaboration has been provided from many sources and under several contractual mechanisms, has contributed to a certain lack of coordination and an increased management/administrative burden on the AID/ROCAP Project Manager and the INCAP Project Coordinator. The development of a Technical Collaboration Plan for CY 1986 at the end of the first quarter of that year helped coordinate part of this effort. Like all plans, however, it reduced the flexibility that INCAP felt the Project needed during Phase I. While better coordination has been achieved, the Project has not, to date, received a consistent, timely flow of reports from the consultants.

2. Conclusions

A Child Survival Fellow has been recruited through a Cooperative Agreement between INCAP and Johns Hopkins University, which has focused its technical collaboration on the research component of the Project. This person should help maintain substantive and managerial coherence in that component. There should, as a result, be less need for short-term collaboration in this area. The technical collaboration required should have a well-defined, specific scope of work.

This evaluation also recommends (see Recommendations 6 and 8) the addition of a Project Operations Officer, who would be supported by an experienced, qualified, full-time, long-term Senior Management Expert. They would develop and implement the necessary management systems in the areas of planning, analytical monitoring, evaluation, reporting and quality control. This should appropriately redistribute some of the management burden and help to consolidate, focus and prioritize future technical collaboration.

At the same time, a CY 1987 Technical Collaboration Plan should be developed as soon as possible. Thoughts about the technical collaboration needs that emerged during, and as a result of, the evaluation have already been written up and transmitted to INCAP and ROCAP in an adjunct memo.

Consultant visit and documentation tracking systems, now under development by PRITECH, should be implemented by January. A first draft of the documentation tracking system (Doctrack) is now being developed. An analogous system will be developed to monitor consultant visits (Triptrack). Monthly printouts of these tracking systems should form the basis of monthly reports to both the ROCAP Project Manager and the INCAP Project Coordinator.

F. DEVELOPMENT IMPACT

1. Findings

As has been mentioned earlier, the goal of the Project is to improve health status throughout the subregion as indicated by reductions in infant mortality and severe malnutrition. The goal is to be achieved by increasing the effective use of oral rehydration therapy, growth monitoring and appropriate, related feeding practices.

Currently health status indicators are relatively good in the three smaller countries served by the Project: Belize, Panama and Costa Rica. Much remains to be done, however, to improve health status in Guatemala, El Salvador and Honduras. It is in these last three countries that the Project was expected to achieve its greatest health impact. (Because of Belize's relatively adequate health status, its language and culture and its traditional ties to the Eastern Caribbean, INCAP has adopted a reactive policy responding to requests but not promoting its services. This appears to be an appropriate policy.) As discussed below in the rationale for Recommendation 1, however, the USAID Mission is in various stages of developing and implementing much larger bilateral projects in the three priority countries that have the same goal, support the same health interventions, and have far greater resources. Similarly, other bilateral and multilateral donors have developed large programs that have similar goals and promote the same health services. Thus, while it should be possible to chart progress in the health status indicators during and immediately after the Project, it will almost certainly be impossible to objectively attribute improvements to this Project.

The Project's design does not indicate that institutional development of INCAP is a major objective, although this objective is clearly implicit. Instead of its traditional focus on nutrition, INCAP has been asked by the Project to broaden its sphere of technical expertise to include several major Child Survival interventions, while, through other AID funded activities, it is also becoming involved with immunization and acute respiratory infections. In addition, the Project requires INCAP to develop management expertise and to further develop its training capacity.

2. Conclusions

The goal and purposes of the Project remain valid, and while the INCAP Project is not the only project with this goal and/or purpose, INCAP has an important and unique role to play in their achievement. In particular, INCAP is in a unique position to promote collaboration among visiting consultants and long-term advisors, as well as among countries. Lessons learned at great cost in one place need not always be relearned at the same price in all other places. Thus, Recommendation 1 is directed toward strengthening INCAP's role in subregional coordination and technology exchange.

The Project requires INCAP to develop a high level of technical expertise in several complex and problematic areas simultaneously. The evaluation team feels this institutional development of INCAP is a very important element of the Project, which contributes to the long-term sustainability of the Project's goal, as well as to the long-term sustainability of the other AID

funded Child Survival projects in the subregion. Institutional development is usually not a rapid process, however, and it will take INCAP a number of years to develop an optimal level of expertise and experience in these new areas. The Child Survival Fellow and the experienced Senior Management Expert recommended in this report (Recommendation 8) should contribute significantly to the process of institutional development.

INCAP's background as an institution of excellence in the area of nutrition, together with the number of new areas of expertise mentioned above, strongly suggests a focusing of INCAP's efforts under the Project using two primary criteria. First, the degree to which the effort will contribute directly to the achievement of the Project's goal and purposes should be considered. Second, the degree to which the effort builds or capitalizes on INCAP's existing expertise should be considered. Efforts that don't satisfy both criteria should receive less emphasis. Recommendations 2 to 5 contain some specific suggestions regarding prioritization.

III. RECOMMENDATIONS

A. RECOMMENDATION 1: REGIONAL COORDINATION

INCAP should develop and promote its role as a coordinating agency in the field of Child Survival in Central America and Panama.

1. Rationale

Since the Project was designed, external funding for Child Survival activities has increased dramatically, especially in three priority countries: El Salvador, Guatemala and Honduras. In Honduras, the AID Health Sector I Project (US$30 million) was extended and expanded, and USAID/Honduras is now working with the Ministry of Health on the design of a US$25 million "Child Survival" follow-on project. In El Salvador a US$48 million project, focusing on the delivery of Child Survival services, is in the initial stages of implementation. In Guatemala smaller AID funded projects are now being implemented that support ORT and immunization, and a large, more comprehensive Child Survival project is in the process of being designed. In addition, UNICEF is managing US$30 million received from the Government of Italy and the European Economic Community (EEC) for Child Survival activities in the subregion. Finally, PAHO has numerous advisors in all three countries.

While some needs have been met in the priority countries, for example, the need for financial resources for training, other needs have yet to be met. The three countries now share similar policies, programs and problems which has created a conducive environment for collaboration. The Health Sector I Project has much to offer in this regard, including a successful cold-chain management system for vaccines, training manuals for Traditional Birth Attendants and a computerized, user-friendly management information system for the Tuberculosis Control Program. These three items could be adapted for use in El Salvador or Guatemala for a fraction of their original cost. INCAP, as a regional institution, is in a unique position to identify and assess these and other opportunities and to promote and collaborate in their adaptation and implementation, where deemed appropriate in the subregion.

The projects mentioned above will finance Child Survival activities in far greater volume than was foreseen in Project 596-0115. There is, therefore, an increased need for operations research which should be directed at improving operational efficiency and enhancing the beneficial aspects to be denied from these projects. Furthermore, it is clear that as a result of similar operational problems, much of the operations research conducted should be applicable to more than one country. In summary, INCAP's regional character and research experience suggest an increased role in the area of operations research.

It should be noted that with Project support, INCAP has already taken important steps to develop its role as a coordinating agency. Its documentation center is developing the capacity to disseminate information throughout the region. INCAP promotes and organizes several periodic meetings at the subregional level to discuss issues related to Child Survival. Perhaps most

importantly, country liaison officers have been appointed. These and other steps have, however, occurred in a somewhat ad hoc manner, rather than as a fundamental element of INCAP's institutional development.

2. Next Steps

Regional coordination requires increased contact with individual countries. Several country liaison officers have been appointed and are financed through Project funds; the Guatemalan liaison officer and a replacement for the departing Panaman liaison officer need to be appointed as soon as possible. Current job descriptions, however, were written before the liaison functions were identified and defined. As a result the decision has been made that these positions would not reside at INCAP. These job descriptions should now be formally updated to reflect current reality. The liaison function will probably require approximately 50 percent of each individual's time and should probably include:

- Regular contact with all government officers and cooperating agencies that are responsible for Child Survival activities;
- Collection and review of all significant documentation related to Child Survival activities;
- Dissemination of information on Project 596-0115 and on Child Survival technologies to appropriate government officials, cooperating agencies, and interested NGOs;
- Collaboration with host government officials in the identification and definition of technical collaboration requirements which INCAP can fulfill or obtain;
- Provide concurrent and follow-up support to INCAP technical collaboration assignments;
- Report monthly in writing to the Project Coordinator on progress in carrying out the above responsibilities; and
- Attend routine Project 596-0115 quarterly review meetings.

To implement this recommendation INCAP needs to further develop its capacity to identify the needs of the countries in the area of Child Survival. Furthermore, INCAP needs to develop mechanisms for incorporating these requirements into its annual action plans, and to develop a follow-up and review system to assure that plans are implemented and results evaluated.

Finally, INCAP should consider organizing and supporting an annual Child Survival Workshop for cooperating agencies in which the participants would:

- Hear presentations on technical and operational advances;
- Present a summary of their agency's most important Child Survival activities and an analysis of the most significant problems encountered;
- Identify opportunities for collaboration among countries and among agencies; and
- Suggest, for consideration, key activities which INCAP might undertake, for example, operations research projects.

B. RECOMMENDATION 2: STRENGTHENED INFORMATION SYSTEMS FOCUS

In the field of management INCAP should consider giving priority to information systems, focusing its efforts on innovative initiatives like sentinel areas and sites and efficiency criteria. This should be done while reserving some funds for management training for which other institutions will be contracted when demand warrants their technical collaboration.

1. Rationale

The field of management includes many sophisticated technical areas: information systems, logistics, financial control and planning systems, equipment, vehicle and building maintenance, etc. Advances in these areas are critical to the achievement of the Project's purposes and goal. As discussed elsewhere in Recommendation 1, however, development of most of these areas is being more generously supported by current AID bilateral projects in Honduras and El Salvador and by a possible future project in Guatemala. The INCAP Project Paper not only underestimated the countries' demand for technical collaboration in management, but also underestimated the supply. The level of effort originally contemplated for management systems development is neither sufficient to achieve the Project's objectives nor sufficient to complement or compete with the other sources of management collaboration.

The new situation suggests a more focused management effort by INCAP. For several reasons the evaluation team suggests information systems should be the principal area of concentration.

- Adequate information is an absolute requirement for good management.
- Ministries of health in the subregion require and are demanding strengthened information systems.
- Data collection, analysis and information presentation are highly developed areas of expertise in INCAP.
- Many INCAP staff have developed electronic data processing skills.

- INCAP is already involved with two innovative initiatives in information systems that could yield important results for management, sentinel sites and efficiency criteria.

- INCAP already provides quality technical collaboration in another area related to information systems -- survey design and implementation.

While information system development is being supported by the large AID bilateral projects, activities mostly focus on traditional systems based on routine reporting. These efforts have a long gestation period, probably not less than five years. Meanwhile, the innovative efforts mentioned above could satisfy many urgent needs as well as provide a check on the developing routine systems.

As mentioned, INCAP already has activities related to information systems. The evaluation team recommends that more resources be allocated to these activities, leaving other management areas for other projects or institutions.

2. Next Steps

INCAP should develop a clear strategy for further developing the methodology of sentinel sites and efficiency criteria. Elements of this strategy could include some of the following activities:

- An in-house workshop should be held for project and other interested INCAP staff on these initiatives to (1) broaden the base of interest and familiarize country liaison officers, in particular, with the new concepts and methodologies and (2) develop a detailed action plan for future implementation activities.

- The in-house workshop should stimulate a prior assessment of lessons learned to date regarding the application of the sentinel and efficiency criteria concepts. The development of a short, but analytical, document appears appropriate prior to the workshop.

- One or more small operations research projects should be designed to develop and evaluate alternative approaches to implementing efficiency criteria in different settings and at different levels in the health system.

- INCAP might wish to design one or two small operations research efforts to explore the feasibility of using a simplified efficiency criteria instrument as an aid to routine supervision of health centers.

- Assuming the sentinel/site methodology, this could result in its application in an operations research seeking to evaluate alternative strategies for implementing growth promotion. (See Recommendation 4.)

C. RECOMMENDATION 3: PRIVATE SECTOR

INCAP should consider establishing clear priorities in this area including: (1) training, particularly in oral rehydration therapy, for private sector pharmacists, doctors and nurses, for traditional birth attendants, and for personnel of PVOs; (2) organizing annual subregional workshops to exchange information and experiences regarding social marketing of ORS; (3) investigating the feasibility of further developing a quality control program for ORS being marketed in the private sector; and (4) contracting with individuals and other institutions to satisfy the demand for other technical collaboration.

1. Rationale

To date, INCAP has not been able to do much in the private sector. The social marketing of ORS is a complex problem from the political as well as the social and technical points of view. Furthermore, the political factors and many of the social and technical factors vary from country to country, making the social marketing of ORS a difficult problem to address at the subregional level.

The evaluation team has other concerns related to local production of ORS. At least for public sector distribution channels where volumes are large and relatively predictable and where generic items are widely used and accepted, local production appears to be neither cost-effective nor effective. A detailed study in Honduras concluded that for both financial considerations and management constraints a quasi-public sector institution should probably not be expanded to produce more basic medicines. For some medicines, the foreign exchange costs of purchasing the raw materials appear to be higher than the foreign exchange costs of purchasing the final product, due to the fact that the market for final products appears to be more competitive in some cases. Local production also requires more sophisticated logistics systems, since for each product several raw material items must be purchased and frequently imported, rather than just one final product. All raw materials <u>must</u> be present at the same time before production can occur.

Self-sufficiency is a popular concept, but one that is increasingly inappropriate the smaller the country. Small countries that have achieved rapid economic growth have generally followed an export promotion policy and have promoted production of products in those fields in which the country has a comparative advantage. Even though local production costs may be twice the international cost through UNIPAC or PAHO, there may, however, be good reasons to promote local production for private sector distribution.

INCAP does have skills in certain areas related to the private sector distribution and use of ORS which should be developed under the Project, namely those skills required to do the first three items enumerated in the recommendation.

2. Next Steps

INCAP is collaborating and has collaborated in the past in several KAP surveys. The data collected require special, in depth analysis in conjunction with other information to identify the priority providers in the private sector who could benefit most from ORT training and who would achieve the greatest impact as a result of such training. The situation will vary greatly from country to country. Analysis may show that the greatest opportunities for improvement are in Guatemala and that INCAP's effort should give priority to that country. In that effort INCAP should benefit from the work done elsewhere, for example, in Honduras, and can help countries share experiences and lessons learned.

INCAP can promote its role as a regional coordinator by organizing an annual workshop on the social marketing of ORS. The Ministry of Health in Honduras is currently studying the feasibility of social marketing of ORS with technical collaboration from AED and MSH and market survey support from a Guatemalan firm. The results of this study and its methodology could be of general interest to other countries in the subregion and, thus, might make a suitable focus for the first annual workshop.

The other area where INCAP has an important and scarce capability is in ORS quality control. As local production of ORS proliferates, a monitoring program will become increasingly important. El Salvador already uses INCAP's ability to assess the quality of ORS. INCAP should promote this service, particularly for Guatemala, Honduras and Belize. (This seems to be an appropriate area for Belize to utilize project resources.) The direct costs should be paid by the soliciting country. The Project should finance only the indirect and promotional costs.

Other requests for assistance in promoting private sector involvement in Child Survival should be individually evaluated, but if they don't appear to capitalize on areas of existing INCAP expertise, INCAP should suggest that another institution (or individual) do the work, either with or without funding from the Project.

D. RECOMMENDATION 4: RESEARCH

INCAP should consider developing an annual plan for expanding its operations research (OR) capacity, using the implementation of growth promotion* as a central theme for OR investigations in Guatemala and other countries. A limited amount of funds should be reserved for basic research to supplement existing knowledge, when and if critical gaps are identified, particularly in the area of growth promotion.

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* Growth Monitoring is probably too narrow a term for the concept of promoting healthy growth in children, the ultimate goal of the Child Survival approach.

1. Rationale

There are four categories of good reasons why a focus on operations research and growth promotion is appropriate. First, women and their children are the principal beneficiaries of the Project. A major project objective is to improve the capacity of women to take better care of themselves and their infants and to deal effectively with common illnesses and normal processes like pregnancy and infant growth. A principal project strategy is to improve the knowledge, attitudes and skills of mothers so that they can assume major responsibility for ORT, growth monitoring and appropriate feeding practices. Operations research focuses on practical ways of doing that, and growth monitoring is a potentially important intervention where the principal issues appear to be operational ones and many are still unresolved.

Second, a Regional Operations Research Plan is a stated output for Phase I, but does not yet exist. The March 1986 WHO Technical Advisory Group Meeting committed itself to OR. The Ninth Meeting of the PAHO Regional Scientific Working Group (SWG) on Diarrheal Diseases, held at INCAP in April 1986, had as one objective the establishment of a collaborative effort with INCAP to stimulate operations research in Central America as well as the development of OR priorities. Furthermore, under the Project, INCAP has established itself as a legitimate coordinating body for Child Survival activities and, particularly, for the research effort in Child Survival. Thus, it is an appropriate institution for addressing the constraints to operations research identified at the SWG meeting, i.e., the view that OR is a low academic discipline, the lack of importance accorded to problem-solving research, an indisposition to make the time and effort to promote OR at the country level, and generally limited interest.

Third, almost all research at INCAP to date has had a more biomedical, scientifically oriented focus. In the Latin American region as a whole, the emphasis has been on the epidemiology and etiology of diarrheal disease and related beliefs and practices. Very little has been done on health systems and delivery issues. As ideas for operations research accumulate, priorities will need to be established. INCAP, as a traditional regional leader in nutrition and now as a leader in Child Survival, can and should promote growth promotion as a focus for OR.

Fourth, growth promotion not only screens and follows children who need special attention, but provides a point of contact at which health education and other maternal-child health interventions can occur. The basic problem with growth promotion is the inadequate knowledge available for applying it on a large scale at low cost; a problem operations research can help address.

2. Next Steps

A strategy and plan for using operations research to support growth promotion should be developed and implemented, which includes the following concepts:

- Making growth visible to mothers;
- Interpreting health in terms of growth;
- Combining specific nutrition and health education messages with action programs designed to obtain growth;
- Monthly measurements of growth;
- Encouraging growth from the very youngest age;
- Concentrating on the highest risk cohorts (6-8 months), and not initiating growth monitoring for all age groups;
- Providing specific information, particularly at 6-8 months, on the introduction of weaning foods and other appropriate activities in response to faltering growth;
- Viewing growth promotion as a nutrition education strategy and as an opportunity to promote the entire array of Child Survival interventions;
- Promoting the importance of maternal nutrition during pregnancy and lactation; and
- Promoting appropriate feeding and ORT during diarrheal disease.

Operations research should focus on identifying the best alternative ways to assure implementation of each of the growth promotion concepts enumerated above. Annual action plans for accomplishing this operations research could include:

- The formation of an operations research working group to promote and support OR activities;
- The identification of personnel at INCAP and within the subregion with special interest in OR;
- An annual action plan for further developing OR capabilities at INCAP;
- Development of a standard OR proposal format;
- Development of criteria for the decision to support specific OR projects;
- Development of standard procedures for presenting and disseminating the results of OR projects; and
- Identification of any external technical collaboration that may be required to implement the plan.

E. RECOMMENDATION 5: TRAINING AND EDUCATION

INCAP should consider employing a Training and Education Coordinator qualified through training and experience in (1) adult education, (2) competency based training, (3) instructional design, (4) instructional materials development, and (5) education evaluation to direct project activities in education, training and information dissemination.

1. Rationale

The Project Paper and INCAP's implementation plans jointly outline an ambitious set of education, training and information dissemination objectives. These objectives require planning, implementation and evaluation activities that:

- Involve both public and private sectors;
- Must be tailored to support the current health projects and meet the unique needs of six countries;
- Are designed to produce a variety of materials and programs that include a full range of instructional methods and use of alternative media; and
- Involve numerous distinct audiences, including physicians, nurses, nutritionists, pharmacists, health administrators, health educators, paraprofessionals and community workers.

INCAP has assembled a multidisciplinary team to develop and implement training, education and communication programs. Only two professional staff members, however, work full-time in these areas. The individual responsible for coordinating the programs has had significant responsibilities outside the Project. Consequently, the current professional staff is unable to meet the Project's objectives.

INCAP's objectives are further complicated by the various national health officials' and professionals' reluctance to participate in the numerous proposed conferences, courses, and workshops. If INCAP is to meet its objectives in the limited time remaining, its education and training programs must be focused. All programs and materials must be carefully designed to meet recognized needs, and to produce essential skills and practices among the various target audiences. The content and presentations must be of high quality. Individual conferences, courses and workshops should be coordinated and actively promoted by a regionally recognized expert in education and training.

2. Next Steps

INCAP should proceed as rapidly as possible to employ the individual described in the recommendation. The first task should be to organize a project team with appropriate skills in:

- Instructional design emphasizing competency based learning;
- Continuing education;
- Distance education;
- Communication and social marketing;
- Materials development; and
- Instructional evaluation.

The project team should continue the community health service program and provider studies. Special attention should be placed on task analyses and information needs among targeted audiences actually providing health care information in both public and private sectors.

INCAP should design its instructional modules to produce specific behaviors. Modules should meet the needs of defined audiences with different health care, education and training responsibilities. Anthropological study results should be integrated into the materials to maximize the modules' effectiveness. Discrete, measurable instructional objectives should be set for each module.

Several of INCAP's target audiences can be served by competency based instructional programs. These programs should be designed to:

- Permit self-paced instruction;
- Follow closely sequenced steps in presenting new information;
- Require sustained interaction between the program and the user;
- Provide immediate evaluations of user's answers; and
- Reinforce correct answers and provide follow-up assistance in correcting inappropriate answers.

INCAP's Training and Education Coordinator should reassess and revise the number of proposed work products, conferences, courses and workshops. He should probably be supported in this effort by one or more short-term consultants who could conduct a special in-depth evaluation of project financed education and training activities. A realistic schedule needs to be established in light of the remaining life of the Project. Deadlines and responsibilities for meeting deadlines should be clearly assigned and maintained. Money saved by reducing and focusing the number of proposed products and training sessions can be used to increase quality and to increase participation among hard-to-reach audiences, especially in the private sector.

F. RECOMMENDATION 6: PROJECT OPERATIONS TEAM

INCAP should consider forming a Project Operations Team which would have the responsibility for coordinating and monitoring all technical and financial activities at the operational level. The team would consist of the Project Coordinator, two Technical Coordinators and a Project Operations Officer.

1. Rationale

As the Project's activities become more focused on implementation, increasing attention will be required to communication and information exchange among the various subcomponents. Success in any one area will depend on close collaboration among all components. Coordination of country and central activities will become more important and more difficult as the size and scope of activities expand. The proposed Project Operations Team will serve as a formal mechanism to insure that:

- Activities in each subcomponent are carefully selected and specifically focused on the Project's goal and purposes;
- An appropriate balance among subcomponents is maintained;
- Priorities are reviewed on a regular basis in accordance with changing environmental and country needs;
- Project workplans and staff and financial allocations reflect priorities;
- Technical quality is maintained;
- Project activities and expenditures are routinely monitored by an internal group; and
- Project staff and donors are kept informed of activities.

The broad and complex nature of the Project plus the high degree of delegation of authority to project staff suggests the need for strengthened coordination among components and increased attention to quality control issues. The evaluation team suggests that a full-time Project Operations Officer be hired to develop and implement management systems to promote coordination and assure quality control. Among other responsibilities the Project Operations Officer, under the direction of the Project Coordinator, should:

- Coordinate the work of the Project Operations Team described above;
- Assure the Project Operations Team meetings are held, have a written agenda, and that minutes are published and disseminated;
- Develop formal management and reporting systems to facilitate internal coordination among components;

- Develop quality control strategies and methodologies; and
- Assure compliance with AID contractual and reporting requirements.

2. Next Steps

The Project Coordinator should appoint the two Technical Coordinators and the Project Operations Officer as soon as possible. It is assumed that the Technical Coordinators will most likely be selected from existing staff. It is suggested that INCAP may wish to consider outside candidates for the position of Project Operations Officer. The Project Operations Officer and the Technical Coordinators should work full-time on project activities. The Technical Coordinators are expected to devote approximately 30 percent of their time to external and internal coordination and the remaining 70 percent to technical activities.

The Project Operations Team should establish a fixed time for weekly meetings. Meetings should always be held, even if some members are travelling. The agenda should be prepared the day before each meeting. Project staff should be encouraged to submit items for the agenda. The USAID Project Manager should review the agenda prior to the weekly meetings of the Project Operations Team and should attend these meetings as often as possible. The evaluation team believes that the USAID Project Manager's participation will save time and will keep him informed of project developments, changes, pending actions, and potential problems. Minutes of each Project Operations Team meeting should be prepared and circulated to all project staff no later than the day after the meeting. They should be succinct (no longer than a page) and focus on problems identified, decisions taken, responsibilities assigned and target dates set. A possible format for these minutes appears in Appendix XI.

The Project Coordinator should initiate an extensive search for the Project Operations Officer who should meet the following qualifications:

- Minimum master's degree in business or public administration or similar field;
- Two years or more experience directing a large, complex project or business in a developing country, preferably related to health;
- Two or more years experience as a senior government official or as a management consultant to government; and
- Speak Spanish and, preferably, English.

On a quarterly basis, the Project Operations Team should evaluate and review the Project in relation to the outcomes specified in the Project's logframe. Periodically, the logframe should be revised to reflect the accomplishments, problems, changing priorities and changes in the underlying assumptions. Changes in the logframe should be formally documented by AID

and INCAP. The written review can serve as the basis for the quarterly report required by AID. It should be written by the Project Operations Officer in collaboration with the Technical Coordinators and under the direction of the Project Coordinator.

G. RECOMMENDATION 7: QUARTERLY PROJECT REVIEW MEETINGS

INCAP should consider holding one or two-day quarterly project review meetings with all project staff including liaison officials, in order to review and evaluate the past quarter's activities, to discuss specific plans for the next quarter and to facilitate communication and integration among components.

1. Rationale

Initial plans for the Project called for all personnel to be based at INCAP headquarters. In response to the needs of the countries, the staffing pattern was adjusted to place people in field positions throughout the region. This change in the focus of activities has increased project outreach and the access of countries to project resources. At the same time, it has increased the need for efficient and effective communication among project staff. As the quantity of both country-based and central activities increases, there is a greater need to assure that project strategies and focus are shared; that activities complement each other; that staff are able to use project resources; and that all learn from the experiences of different countries and components. A quarterly meeting of all project staff would provide a face-to-face means to:

- Review the draft quarterly report;
- Review the quantity and quality of the past quarter's achievements in each country and subcomponent;
- Review project strategies for the next quarter, identify potential problems and discuss adjustments in workplans;
- Review research results and discuss their implications for all project components, including training, education and country-based activities;
- Discuss possible changes in financial projections for the next quarter based on adjustments in planned activities;
- Assess and evaluate overall project progress to date;
- Maintain good communications and relationships among all individuals working on the Project; and
- Provide a forum for staff to share with their colleagues any issues or concerns about their work.

There are many more specific actions which could be taken to improve the internal management and communications of the Project. Several of these actions are mentioned in Recommendations 6 and 8 which suggest the need for additional personnel to develop project management systems. Monthly reports, monitoring tools, regular Project Operations Team meetings, meeting agenda and minutes, standard research report formats, etc. are all measures which should improve project management and communications. The evaluation team feels, however, that two-day quarterly project review meetings are particularly important in light of the need to better integrate the technical assistance component, particularly to integrate the country liaison officers with other activities of the Project.

2. Next Steps

As a first step it is suggested that the project staff review the recommendations of this team. This could be done as part of the next "cooperacion tecnica" meeting in January 1987. The quarterly meetings should be organized by the Project Operations Officer and coordinated with INCAP's Technical Cooperation Division. An agenda should be developed well in advance and each staff member should have an opportunity to review and add items. In addition to the topics listed in the rationale for this recommendation, the Project Coordinator might consider in-depth presentations of one or two technical components and/or countries by the staff involved. These in-depth discussions would promote a general understanding of the technical work of each component among staff members and would, thereby, facilitate collaboration.

These quarterly staff meetings should be a minimum of one day, though they may need to be longer, particularly during the first year. In addition, it is suggested that the Project hold annual reviews with the staff at the end of each year. Overall project achievements would be reviewed. Future strategies and workplans for each sub-component and country would be discussed. As with the weekly Project Operations Team meetings, succinct minutes of quarterly meetings should be prepared and distributed to all project staff along with a copy of the final version of the quarterly reports submitted to AID.

Project management needs to focus project activities more clearly on the achievement of the project's goal and purposes. At present, the Project lacks clearly defined, objectively verifiable "End of Project Status" (EOPS) indicators. Some ideas are presented in Table 1. For this project, targets should be specified for each country and, for that reason, probably no more than 10 EOPS indicators should be selected. Care should be taken to select indicators for which nationally representative information is likely to be available. A chart could be set up in a computer and updated as new information becomes available. The chart could be included and discussed in the routine quarterly or semi-annual reports. Further ideas are presented under "Evaluation Plan Suggestions," in this summary.

Project-financed activities proposed for inclusion in annual action plans should be justified in terms of their impact on the achievement of the project's goal and purposes as measured by the EOPS indicators. Activities that appear to have the greatest potential impact should receive priority resource allocations.

H. RECOMMENDATION 8: SENIOR MANAGEMENT EXPERT

INCAP and AID/ROCAP should consider recruiting an experienced and qualified management advisor to work full-time for a minimum of two years with the Project Operations Team on the further development of management systems in the areas of planning, reporting, communications and quality control for the Project.

1. Rationale

The original project plans called for a long-term advisor to work with project staff on the development and implementation of the research program. It was anticipated that this person would also be able to assist with the overall implementation of the Project. Although there has been a continuous effort to identify and recruit an appropriate candidate, the position has not been filed. A Johns Hopkins Child Survival Fellow has now been recruited but is expected to focus almost exclusively on selected basic research activities. The Child Survival Fellow plus supplementary short-term technical collaboration is expected to provide sufficient support to the research effort.

At the same time, the Project has become more complex. Its field orientation was strengthened by posting the management specialists in the individual countries and assigning liaison responsibilities to them. This decision was well received by the countries and has greatly increased INCAP's ability to provide the countries with the type of collaboration required to achieve the project purposes and goal. It has, however, made project management more difficult and complex. Communication with the liaison officers requires a major investment of time in order to coordinate their efforts with those of the rest of the Project.

The posting of the management specialists in the countries has also removed them from INCAP headquarters. Although not explicitly discussed in the Project Paper, it is clear that the management specialists could have, in addition to their programmed activities, played a key role in the development of management systems for the Project. The lack of a senior technical advisor and the posting of the management specialists to the countries, has left the Project's headquarters with much less management expertise than had been planned.

The evaluation team believes that the development of adequate project management systems, including the implementation of the preceding recommendations, particularly numbers 6 and 7, requires the technical collaboration of a long-term (minimum two years) full-time senior management expert supported by a limited amount of carefully coordinated specialized short-term collaboration.

2. Next Steps

INCAP and AID/ROCAP should initiate a search as soon as possible for a full-time senior management advisor for the Project who is experienced in health systems development and who would be counterparted to the Project Coordinator and the Project Operations Team. The first step should be to define the scope of work and develop minimum qualifications. The evaluation team's suggestions follow.

Principal responsibilities, to be executed in collaboration with counterparts, should include:

- Organizing the weekly meetings of the Project Operations Team;
- Organizing an internal, standard monthly reporting system;
- Organizing the quarterly review and evaluation meetings;
- Developing and follow-up of annual action plans;
- Elaborating analytical quarterly reports for AID/ROCAP;
- Developing monitoring and evaluation instruments for all technical activities carried out by the Project, including technical collaboration, technical reporting, training and research; and
- Identifying, recruiting and supervising short-term technical collaboration required by the Project.

Principal minimum qualifications should include:

- A masters degree and preferably a Ph.D in a management discipline;
- At least five years experience in the development implementation of management systems in developing countries, preferably in Latin America;
- At least two years experience as the director of a large project;
- At least two years experience in the health field;
- Long-term professional work experience in at least two different developing countries with short-term consulting experience in at least four others; and
- Fluency in both Spanish and English (FS 3/3).

Management consultants fulfilling the qualifications and capable of performing the responsibilities outlined above are in considerable demand and almost always have existing commitments. They are usually neither looking for work nor immediately available. The position described is attractive since it has excellent counterparts, an institutional base with a good

reputation, adequate funding and a rewarding and challenging project. However, INCAP and AID/ROCAP should anticipate that the recruitment process will probably take at least six months from agreement on the scope of work and qualifications until the expert's arrival to the post.

IV. EVALUATION SUGGESTIONS

A. EVALUATION PLAN SUGGESTIONS

The Project is and will continue to be very difficult to evaluate. This is due to three principal reasons which generally apply to other health projects, but could cause even greater difficulties in this case.

1. Goal and purpose achievement are very difficult to measure in developing countries. Even traditional indicators such as the infant mortality rate, life expectancy at birth, the crude birth rate and malnutrition rates cannot be measured with precision. Furthermore, to evaluate this Project, measurements are required from six countries.

2. Routine reporting systems are inadequately developed and the information they generate is generally neither accurate nor nationally representative. This Project must work with six different reporting systems.

3. There are a great many factors, in addition to the performance of the Project, which may influence goal and purpose achievement. As a result, the desired project goal and purposes could possibly be achieved without the Project, or conversely, might not be achieved even though the Project was implemented as planned. Where several other simultaneous projects in the same geographic area have similar goals and objectives, individual project responsibility for success is even more difficult to prove. The factors which influence project goal and purpose achievement will vary among the six countries.

By way of illustrating the difficulty faced by those who seek to evaluate the impact of health projects, no usable information is available in Honduras on the status of any of the indicators of goal achievement provided in the "model" monitoring and evaluation plan attached to the scope of work for this evaluation. Furthermore, even if the information was available, it would not be possible to say that a given project was responsible for the improvement or lack thereof.

The best way to evaluate this Project will be through its internal management and monitoring systems. The need for further development of these systems has been discussed in the "Findings and Conclusions" subsection of this report under the subsections dealing with "Status of Project Planning, Management and Administration" and "Monitoring and Evaluation." Specific suggestions on how to improve the Project's internal management and monitoring systems were made in Recommendations 6, 7 and 8. The best way to monitor the Project will be through annual action plans in which there exists a clear logical linkage between programmed activities and the Project's goal and purposes, complemented by a monitoring system that incorporates quality control elements to ensure compliance with, or to make adjustments in, the annual action plan. Future evaluations of the Project should focus on the degree to which internal management and monitoring systems have been strengthened.

While goal and purpose achievement are difficult to measure and more difficult to attribute to specific projects or programs, INCAP should develop a plan to monitor progress at this level. This plan should be carefully coordinated with the recommended management system focus (see Recommendation 2) in the area of information systems. The primary objective of this evaluation effort will not be to evaluate the Project but to provide important information to decision-makers in the Ministries of Health and National Social Security Institutions and to important donors including PAHO, UNICEF, USAID and others. To achieve this objective there is little need for subregional aggregation. Rather, specific information on goal and purpose achievement in each country would be more useful.

The following steps constitute a recommended strategy for developing an evaluation process.

1. Review the Project's logframe and identify objectively verifiable indicators for goal and purpose achievement. All indicators should include an unambiguous definition, a quantitative target and a date on which the target should be achieved.

2. Review each proposed indicator with each country to determine:

   - Potential usefulness to Child Survival program managers;
   - Other indicators currently used or potentially useful to Child Survival program managers;
   - Current availability and reliability of information on quantitative levels of the indicators; or
   - Feasibility of collecting reliable information on current quantitative levels through sentinel sites, efficiency criteria, periodic surveys, the routine information system or other means; and
   - Appropriate target levels and associated dates.

3. Elaborate the "Means of Verification" column of the logframe by developing a specific plan for acquiring and analyzing the required information on each indicator in each country.

4. In consultation with Child Survival program managers identify the important assumptions that must hold for achievement of the goal and purposes in each country and, where possible, assist countries to (1) monitor the status of each assumption, and (2) develop alternative strategies should an assumption's validity become questionable.

5. Assign responsibility for semi-annual reporting of the most recent information on the status of each logframe indicator in each country to individual project staff members.

6. Submit a semi-annual report to AID/ROCAP and to Child Survival program managers on logframe status.

The following table provides sample indicators for each of the three components of the Project's purpose. The objectively verifiable indicators and means of verification are meant to be illustrative. Actual elaboration of a working logframe should be done by project staff collaborating with both Child Survival program managers and AID/ROCAP personnel. Short-term specially qualified technical collaboration might be useful to help identify appropriate indicators and to help elaborate the additional specifications that will be required to, for example, define precisely what constitutes "regular" growth monitoring.

The combination of strengthened management and monitoring systems to control activities and the creation of a logframe reporting system should provide adequate information on the performance of the Project as well as support the evaluation of other projects in the subregion.

B. EVALUATION FOLLOW-UP SUGGESTIONS

The evaluation team has attempted to assess a large, complex and ambitious project, which exists in, and is intended to affect, a constantly changing, even more complex environment.

In the assessment process errors of fact, judgment and omission may have occurred, although the repetitive review process has left us confident about the appropriateness of our principal recommendations.

A greater shortcoming with this evaluation is likely to become evident when project staff attempt, first, to evaluate the recommendations and, second, to implement those that are eventually accepted. Project staff are likely to have questions which this report could not, and has not anticipated. Implementation will raise a host of unforeseen issues, many of which may prove difficult to resolve.

At the risk of appearing to use this exercise to create more employment for evaluation team members, we recommend that INCAP and AID/ROCAP consider inviting one or two evaluation team members to participate as observers in the next several quarterly review meetings. Such participation should yield the following benefits:

- Answers to questions of clarification concerning the observations and recommendations contained in this report;
- Opinions and/or advice concerning adjustments in, and implementation of the recommendations;
- Opinions and/or advice concerning new or additional problems not identified in this evaluation; and
- An outside element to absorb criticism in the event that difficult decisions have to be made. (Outsiders are generally less directly concerned about the personal implications of their recommendations than project personnel.)

Finally, after a year of effort to use the results of this evaluation, INCAP and AID/ROCAP might wish to consider a smaller, independent assessment of the impact of this evaluation as well as an appraisal of this evaluation, which could help with the design of the next project evaluation.

V. OUTPUT REVIEW

This section contains a review of the outputs and activities that have been completely or partially funded by the Oral Rehydration Therapy, Growth Monitoring and Education Project. As is mentioned in the Introduction, the Project has undertaken a great number of activities in a broad range of areas in six countries. The review of these activities by the evaluation team is, however, relatively subjective. Many project outputs were not specified in sufficient detail in the project design to permit later objective verification of their achievement. Furthermore, the format of INCAP's quarterly reports has changed repeatedly in an attempt to increase their usefulness to decision makers. While these reports have improved, the repeated changes make it very difficult to monitor the production of the Project's outputs.

This section consists of two tables. The first, Table 1, presents a "Summary Comparison of Planned with Actual Outputs." Table 2 presents a "Summary of Major Project Outputs by Component," and clearly illustrates the large number and broad range of activities which INCAP has undertaken with project financing. As noted in subsection B of Section II. Project Status, the Project appears ready to begin and, in fact, has already begun implementation activities in several areas. The evaluation team, however, made three specific priority recommendations to improve project management which should result in increased ability to monitor outputs and to systematically develop follow-up and quality control mechanisms.

TABLE 1

SUMMARY COMPARISON OF PLANNED WITH ACTUAL OUTPUTS
INCAP/ROCAP PROJECT (096-0115)
(as of November 1986)

Component 1: Promotion of Effective National Strategies and Plans (Planning and Promotion) –

OUTPUTS PLANNED	ACHIEVED?	NO. (if applies) planned	done	COMMENT
Regional Promotion Plan prepared	Yes	1	1	These were formalized in the AMPES, the annual planning document which covers technical cooperation.
Promotional visits to each country, key institutions, and leaders identified	Yes			
Country planning and assessment guidelines developed	Yes	8	7	"Resources; planning/org./admin.; supervision; training; information systems; logistics; education and community participation"
Analytical base for planning developed by completing the following studies for each country:	Yes and no (see comment)	6		INCAP and PAHO decided that these should be combined, using the Condiciones de Eficiencia model. These integrated studies were done in Panama and Guatemala; El Salvador did CDD assessment only; Honduras and Belize did similar studies in 1984 and 1985, respectively. Present consensus in Grupo Tecnico is that more in-depth study needed in all countries but Costa Rica, Panamá, and Honduras, where issues are more of implementation than planning. Some diagnostic work going on in human resources development. A mass communications systems study was under-
1. Provider Study		6	1	
2. Community Study		6	4	
3. Health Services Management and Logistics Study				
4. Health Information Systems Study				
5. Finance and Economic Benefits Study				
6. ORT Production and Commercial Sales Feasibility				
7. Training Systems Review				

OUTPUTS PLANNED	ACHIEVED?	NO. (if applies) planned	done	COMMENT
8. Mass Communication Systems Study				taken and completed. HIS/MIS systems analysis done in Costa Rica, small-scale effort in Guatemala; work remains to be done. No work done in finance and ORT production and sales. Community studies (ethnographic cases) done in Belize, Guatemala, Panama, and El Salvador. Provider studies done in limited fashion; INCAP collaborating on large provider KAP in Guatemala now.
Draft National Plans completed	Yes	6	"6"	In general, these national Child Survival plans have many of the characteristics of project plans.
Regional Seminar to discuss national plans and review results	Yes	1	1	Very successful and useful
National Seminars to refine and approve plans	Yes	6	6+	6 national planning seminars were planned during phase I. 13 were actually held.
National Plans approved	Yes	6	6	
Technical assistance to CA/P countries for planning and promotion activities	Yes	18 person mos. of service	34 45	1986 total not including residant INCAP liaison officers Provided through March 1986 by resident INCAP liaison officers
<u>Component 2: Strengthening Health Services Delivery and Information Systems</u>				
Assessment of program management, logistics, and financial planning, and management in each country	Yes and no			See comments for Component 1.

OUTPUTS PLANNED	ACHIEVED?	NO. (if applies) planned	done	COMMENT
Review of health information systems (HIS) for ORT, GM, and health/nutrition education programs in each country	no, except for Costa Rica	6	1	Costa Rica, where there is an INCAP liaison officer for 596-115 who is an expert in information systems, has enjoyed considerable support in this area. Guatemala has received some help in Health Areas which do channelling and with setting up sentinel systems.
<u>Component 3: Improving Professional, Paraprofessional, and Community Worker Skills and Public Education</u>				
Community studies in each country	partially	6	4	See comments for Component 1.
Health service provider studies in each country	little	6	1	See comments on Component 1.
Training system and curriculum review in each country	partially	6	"6"	Training assessments have been done, establishing task analysis and training requirements for manpower at the central, regional, and local levels in each of the Child Survival program areas. These are comprehensive but need careful review to produce clear guidance for implementation of inservice training.
Mass communications systems review in each country	Yes	6	6	

Component 4: Increasing the Availability of Scientific and Technical Information

OUTPUTS PLANNED	ACHIEVED?	NO. (if applies) planned	done	COMMENT
Regional technical information dissemination plan	Yes	1	1	An Annual Work Plan was prepared for 1986 for this subcomponent. The life-of-project plan is contained in the Project Paper.
Clearinghouse and media library for ORT, GM, and AFP	Yes	1	1	
Research protocols for three regional and four multicenter studies*	partially	7	3	Two regional protocols are under way. One multicenter study, anthropology, is under way.
Regional Operations Research Plan	no	1	0	Being recommended by this evaluation as a major effort for 1987; some preliminary work done with PAHO in relation to CDD

Component 5: Increasing Availability and Improving Distribution of ORS

Feasibility studies for national or regional ORS production	no	6	0	National studies planned. Rec.# 3 suggests INCAP should focus on activities such as seminars, which promote the exchange of national experience, training which promotes the acceptance of ORS among private sector practitioners, and investigating the further development of its own quality control service.
Feasibility studies for commercial distribution of ORS in each country	no	6	0	

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* Regional - dietary treatment/nutrition rehabilitation of children with diarrhea, high risk factors for LBW and appropriate interventions, and [illegible] of chronic diarrhea/malnutrition links. Multicenter - dietary treatment of diarrhea, LBW risk factor interventions, impact on mortality and morbidity, and [illegible] community and provider studies. (The first three studies will be done in 4 countries, the last in 6 countries.)

TABLE 2

SUMMARY OF MAJOR PROJECT OUTPUTS BY COMPONENT, INCAP/ROCAP PROJECT, "ORT, GROWTH MONITORING, AND EDUCATION" (596-0115)

COMPONENT I: PROMOTION OF EFFECTIVE NATIONAL STRATEGIES AND PLANS*

This component will a) mobilize support for extending the use of Oral Rehydration Therapy (ORT), Growth Monitoring (GM) and Associated Feeding Practices (AFP) in the countries of the region; b) help INCAP focus and channel its efforts on the key national level decision-makers, institutions and constraints; and c) increase private sector involvement and improve donor coordination. INCAP will assist the countries to develop and/or improve their strategies and plans for increasing the use of ORT, GM and AFP by supporting a number of related activities. Planning guidelines for national strategies and plans will be developed, and Knowledge, Attitudes and Practices (KAP) studies will be carried out to provide the required analysis of the target populations and service providers. Specific studies will also be carried out on a national basis to examine program management, ORS production and logistics systems, financial management and budgetary requirements, approaches for increasing commercial sales and mass communications programs. The strategies and plans will be discussed, refined, and promoted at both regional and national-level seminars.

Achievements to Date

Objectives:	Phase I - Planning	Jan.-Mar.1985	Oct.-Dec.1985**	1 Jan.-31 Mar.1986	1 Apr.-30 Jun 1986	1 Jul-30 Sep.1986
a. Effective national strategies developed and implemented. b. Increased private sector involvement. c. Improved donor coordination. d. Increased involvement of key health sector opinion leaders.	a. Regional promotion plan prepared. b. Promotional visits made to each country: key institutions and leaders identified. c. Country planning and assessment guidelines developed. d. Analytical base for planning developed by completing the following studies for each country: (1) Provider Study (2) Community Study (3) Health Services Management (4) Health Information Systems Study (5) Finance and Economic Benefits Study	a-b. Promotional and technical visits made to all the Central American countries, Panama, and Belize, to inform MOH authorities and PAHO advisors about project. Coordination meeting with PAHO and UNICEF on role of project in regional Child Survival plans. Agreements signed at country level in Honduras, Guatemala, and El Salvador on interagency coordination for support of National Child Survival plans, among UNICEF, AID and INCAP. Two-week management training course held in Guatemala for INCAP project	c. Using PAHO CDD methodology, as well as the Assessment Guides prepared at INCAP (partly adapted to the Central American context from the PRITECH ORT Assessment and Planning Guidelines), systems studies ("Condiciones de Eficiencia") carried out in Panama, Guatemala, and Honduras as well as CDD evaluation in El Salvador. CDD studies carried out independently in Nicaragua and Costa Rica with PAHO	e,f,h. 28-31 Jan. Sub-regional seminar on Child Survival and Nutrition in PHC, Antigua, Guatemala. Attending: 7-8 members of each National Child Survival Commission; reps. from donor agencies (AID, WHO/PAHO, UNICEF, EEC, UNFPA, Italian Gov't); and INCAP Project Staff. Outputs: review and approval of all 1986-87 country Child Survival Plans; analysis of achievements to date; identification of priority needs in planning and org., human resource development, community education, monitoring and	d. Final version prepared of Panama Condiciones de Eficiencia Study (E20). d. Development of the following protocols for anthropological studies (E10): - MCH providers - recognition of signs and symptoms of dehydration and mothers' decision-making - psychosocial risk factors during pregnancy and birth - education during prenatal control and postpartum.	d. Editing completed on diarrhea component of anthropological case studies from El Salvador (E10). d. First draft proposal for anthropological research in Escuintla on child growth and development (E10).

Achievements to Date

Objectives:	Phase I - Planning	Jan.-Mar.1985	Oct.-Dec.1985**	1 Jan.-31 Mar.1986	1 Apr.-30 Jun 1986	1 Jul-30 Sep.1986
	(6) ORS Production and Commercial Sales Feasibility (7) Training Systems Review (8) Mass Communication Systems Study e. Draft national plans completed. f. Regional seminar to discuss national plans and review. g. National seminars to refine and approve plans. h. National plans approved.	staff and candidates for project positions. c. As part of the course, the Assessment and Planning Guides for the country Child Survival Diagnoses were reviewed, prior to testing in Guatemala in April and application at the country level beginning in May. Areas covered were: planning and services delivery; financing; logistics and commercial production and distribution; human resources; monitoring and evaluation/information systems; and health communications. Methodology for studies of "Condiciones de Eficiencia" revised. Preparation of national plans, and associated Regional Meeting, scheduled for April, postponed due to delays in hiring and siting Country Coordinators.	support. d. Methodologies developed for provider surveys and community health and nutrition KAP surveys, to be carried out in 1986. Case studies completed in Guatemala, Panama, and El Salvador; being programmed in Costa Rica and Belize; pending in Honduras and Nicaragua. e.g.h. At July meeting of PAHO UNICEF, and INCAP, guidelines were written for preparation of country Five-Year Child Survival Plans and Country Documents to be presented at the Jan. 1986 Subregional Child Survival Meeting. g. National planning seminars carried out in Panama and Guatemala, based on the "Condiciones de Eficiencia" studies.	evaluation, and OR. 23-26 Feb., Managua. Project Coordinator attends meeting of Joint Mission of UNICEF-OPS-INCAP and National Child Survival Coordinators, to follow up on Jan. meeting by assigning priorities to list of identified activities and required donor support, time line. 5-7 Mar.,in Guatemala. Follow-up to Managua meeting, including development of strategies for interagency coordination for Technical Cooperation, and set bases for Health Ministers' Declaration. 23-26 Mar., El Salvador: Meeting to: 1) Sign EEC and Italian agreements; 2) Sign agreement for UNICEF to serve as channel for those monies to countries; 3) interagency ✓ meeting w/Gov't. of Italy representatives for progress review; 4) have CS Coordinators meet with Technical Cooperation Group.		

Achievements to Date

Objectives::	Phase I - Planning	Jan.-Mar.1985	Oct.-Dec.1985**	1 Jan.-31 Mar.1986	1 Apr.-30 Jun 1986	1 Jul-30 Sep.1986
				d. Publication of Guatemala Case Studies (User KAPs, Escuintla and Huehuetenango; Provider KAP 1 de julio Health Center). Preparation of User-Provider Interaction Protocol.		

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* Derived from Table 5, Project Paper.

** The Quarterly Report for Oct.-Dec. 1985 was a summary for the year. Jan.-March information is provided in this Table only to set a baseline.

COMPONENT 2: STRENGTHENING HEALTH SERVICES DELIVERY AND INFORMATION SYSTEMS*

This component will help implement the recommendations of the general management and other studies carried out as part of the effort to promote and develop effective national strategies and plans and address the key institutional constraints identified in the specific national plans. This component will also strengthen the capability of national health information systems to monitor and evaluate the child mortality, diarrheal disease, and malnutrition situation, and confirm the progress of national programs in increasing the use of ORT, GM, and AFP. Regional and national workshops will be held on several topics and technical assistance and training will be provided by INCAP and consultants as needed.

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1986	Achievements to Date Oct.-Dec. 1985	1 Jan.-31 Mar.1986	1 Apr-30 Jun.1986	1 Jul-30 Sep.1986
a.Strengthen Health Service Delivery Systems for ORT, GM and AFP.	a.Assessment of program management, logistics, and financial planning and management in each country.		a.(See Component 1): "Using PAHO CDD methodology, as well as the Assessment Guides adapted to the Central American context from the PRITECH ORT Assessment and Planning Guidelines, systems studies ("Condiciones de Eficiencia") were carried out in Panama, Guatemala, and Honduras, as well as a CDD evaluation in El Salvador. CDD studies were carried out independently in Nicaragua and Costa Rica with PAHO support."	Most of the activities under this component have been undertaken by the country liason officers. Their reports are "submitted to INCAP's technical assistance program. These activities should be, but have not yet been, fully integrated in the Projects' quarterly reporting format. The incomplete information to which the team had across did not permit a complete detailed analysis of outputs in this area.		
b. Improve capacity of health information systems to monitor and analyze child mortality, and to monitor and evaluate diarrheal disease and malnutrition programs.	b.Review of health information systems (HIS) for ORT, GM, and health/nutrition education programs in each country.		b.Country liason officer for Costa Rica is providing technical assistance in MIS on request of that country's MOH. INCAP is currently working with MOH in Guatemala on MIS analysis and reorganization.			

* Derived from Table 6, Project Paper.

COMPONENT 3. IMPROVING PROFESSIONAL, PARAPROFESIONAL AND COMMUNITY WORKER SKILLS AND PUBLIC HEALTH KNOWLEDGE

This component will help implement the recommendation of the KAP "Provider Study" by using INCAP staff and consultants to carry out training courses and provide related training materials to improve ORT, GM and AFP skills among physicians, nurses, pharmacists, nutritionists, paraprofessionals and community workers. Basic training for community workers will be provided during the course of their training. This component will also use INCAP staff and consultants to help the countries to improve/develop their mass media programs drawing on the information and recommendations developed in the KAP and community studies.

Achievements to Date

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1985	Oct.-Dec. 1985	1 Jan.-31 Mar. 1986	1 Apr.-30 June 1986	1 July-30 Sept.1986
Improve the knowledge, attitudes and skill of physicians, nurses, nutritionists, pharmacists, paraprofesionals and community workers regarding ORT, GM, and AFP.	a.Community studies in each country. b.Health service provider studies in each country. c.Training system and curriculum review in each country. d. Mass communications system review in each country.	a, b. Course on Applied Anthropological Studies in Health and Nutrition, scheduled for February, postponed to and given in April in Costa Rica, at INCIENSA. Materials prepared for course included a Methodology Manual, including protocols for client (household) and provider interviews and observational studies for anthropological case studies. Two anthropologists trained in Guatemala. Community studies begun in Guatemala at request of MOH in March in 2 departments.	a, b. See Component 1 for continued reporting on these activities. c. Not started yet. d. Completed. Subregional course on Feeding and Nutrition for Child Survival, 14 Oct.-20 Nov., for 36 technicans and professionals. Teaching staff included: Praim, de Palma, Conde, Vielman, Alvarez, and Delgado. Focus was on growth monitoring, breastfeeding, infant nutrition, anthropological studies, and monitoring and evaluation of MCH, based on Training Module for Growth Monitoring produced at INCAP. Subregional seminar-workshop on growth monitoring, San Salvador, 11-15 November, for representatives of Depts. or Divisions of MCH, Nutrition and Education of the	Study design, "Barriers to Vaccination," training of MOH personnel in focus group and analysis techniques. Contacts made for group meetings with national experts for joint development of integrated MCH modules for specialists and normative, operative and community levels. Tutorial for 2 national functionaries from Costa Rica in high risk/low birthweight (5 weeks).	Seminar (Jornada) de Vigilancia Alimentaria Nutritional, Costa Rica, 24-25 June, plus support to country in producing proceedings (B50)**. Meeting on revision of norms (Manual for CLD). Honduras, 16-21 June (B60). Workshop, Design of National Supervision and Evaluation System, Guatemala, 18-21 June (B60). Meeting for review of MCH norms, Panama (no date) (B60). Course being given by R. Alvarez in health education at School of Nursing, Guatemala (1st time such a course given) (July-Dec.) (B60). 9th Meeting of Regional Scientific Working Group on CDD, at INCAP, 21-25 April (B90). Meetings of country experts to design	Seminar/Workshop on Child Survival training and M & E methodologies with MSPAS, Guatemala, 24-26 July, for Health Area personnel. Similar M & E course for Central personnel (no dates) (B60). Seminar/Workshop on HIS, MSP Honduras, 28 July-1 Aug. (B60). Workshop for review of draft norms for integrated child growth and development, MSP Honduras, 25-29 Aug. (B60). Proposal, In-Service Training for Health Personnel in CDD/ORT, El Salvador, August 1986 (B60). TA to Nursing School in: seminar/workshop on MCH/Child Survival priorities; and course for hospital and health center nurses on GM and CDD/ORT (no dates)

Achievements to Date

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1985	Oct.-Dec. 1985	1 Jan.-31 Mar. 1986	1 Apr.-30 June 1986	1 July-30 Sept.1986
			MOHs of the region. Participants reviewed norms for activities in growth monitoring, physical growth, and psychosocial development. Teaching staff: Dr. Rita Hernandez (UNICEF), Norberto Martinez (PAHO/Honduras), and Delgado. Proceedings being prepared. INCAP professional participation in short courses related to Child Survival in Costa Rica, Nicaragua, and Honduras, and on Expert Committee for Training and Communication. Seminar-Workshop on Health Education and Community Participation, San Pedro Sula, Honduras, 10-13 September 1985. Inter-Agency Workshop (PAHO, UNICEF) on support for monitoring and evaluation of Child Survival, Guatemala, November 1985.		integrated Child Survival modules (no dates) (B90 and BBO). Working Group Mtg., Guatemala, 2-4 June, prepares Guidelines for Development of Baseline Data on MCH (B90). Meetings with deans and professors of ob-gyn, pediatrics, preventive medicine, and nursing. to enlist support for Subregional Plan for Human Resources Development for Child Survival (B90). INCAP-PASCAP Coordinating Group formed. Tutorials (BAO): Research into High-Risk Factors in MCH, 17 June-2 July (2 students), Evaluation Methodology, MCH and Breastfeeding, Adolescent Nutrition (2 students), Infant Body Composition, and Psychosocial and Motor Development (1 student each except where indicated). Development and diffusion of methodology for	(BBO). Development of "Ideal KAPs" for mothers of children under 2, nursing mothers, and pregnant women, on health and nutrition, for comparison with "real" KAP levels and further refinement. On-going meetings. (BBO). Interagency meeting on health education for Child Survival, Guatemala, 31 July-1 Aug. (UNICEF, PAHO, INCAP, AED, ROCAP, PASCAP) (B90, BBO). Synthesis published. Formation of Interagency Committee on Health Education (INCAP-OPS-UNICEF) as follow-up to recommendations of Interagency meeting. Elaboration of Subregional Health Education Action Plan for 1987 and Planning Guidelines for Health Education Plans as part of national CS plans. Review and internal distribution of draft manual on child growth and development (BBO). INCAP-PASCAP Coordinating Group

Achievements to Date

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1985	Oct.-Dec. 1985	1 Jan.-31 Mar. 1986	1 Apr.-30 June 1986	1 July-30 Sept.1986
					identifying KAPs in Child Survival areas among health providers and field testing (El Salvador); follow-up at county level on related modules/educational packets (BBO). Development, with PASCAP, of Subregional Plan for Human Resources Development for Child Survival (BBO). Workshop on development of training in MCH, Costa Rica, 9-10 June (BBO).	and Grupo Tecnico Focal for Child Survival develop Action Plan for Human Resources Development for Child Survival for the region for 1986-87 (BBO). All tutorials continue (BHO). Development of tutorial in Microbiologic Diagnosis of Diarrheal Disease (Cruz, Cano, Caceres) (BHO). Reproduction and distribution of PAHO module on CDD training at request of PAHO/Guatemala (N=100). Development of slide-tape for mothers who bring children with diarrhea to Roosevelt Hospital ORU. Presentation of 2 teleforums on national television.

* Derived from Table 7, Project Paper.

** Codes carried in parentheses after each output refer to accounting categories. BBO = Reuniones Tecnicas de Expertos/Technical Meetings of Experts; BHO = Cursos/Tutoriales; BBO = Desarrollo y Prueba de Metodologias de Capacitacion/Development and Testing of Training Methodologies.

COMPONENT 4: INCREASING THE AVAILABILITY OF SCIENTIFIC AND TECHNICAL INFORMATION

This component will support the dissemination of the information needed to improve the effective use of ORT, GM, and AFP in the region and related research. A regional clearing-house will provide services such as quarterly newsletter; materials for seminars, workshops and conferences; mailings of selected materials to targeted users, etc. Research activities will examine ways to extend the use of known ORT and related technologies as widely as possible and to develop additional practical technologies, case management techniques, and educational packages required to deal effectively with diarrheal diseases and their nutritional consequences.

Achievements to Date

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1985	Oct. - Dec. 1985	1 Jan.-31 Mar.1986	1 Apr.-30 Jun.1986**	1 Jul-30 Sept.1986**
Supply the information needed by technical specialists, program managers and scientists to improve ORT, GM and AFP in the region.	a.Regional technical information dissemination plan. b.Clearing house and media library for ORT, GM, and AFP. c.Research protocols for three regional and four multicenter studies. d.Regional Operations Research Plan.	a.No information. b.Activities begun for the Regional Center for Documentation and Dissemination of Technical Scientific Information at INCAP. Four technical documents produced on immunization, growth monitoring, CDD, and Acute Respiratory Infections. Circulated to PAHO and UNICEF for review. c.Preparatory activities for basic research protocols.	a.Completed. c.Two research protocols produced: "Monitoring and Evaluation" (approved and in use), "Epidemiology of Chronic Diarrhea" (approved). "Dietary Treatment of the Child with Diarrhea" (pending revisions). Regional Bulletin published bi-monthly since February 1985 as part of Regional Breastfeeding and ORT Projects (See "ASI"). Five technical documents published (those mentioned in column at left, plus one on Communication for Health and Nutrition). Publication of "Manual on Applied Anthropology for Health and Nutrition." Preparation of technical documents based on	Publication of ASI (Vol. 4, No. 2). Distribution of regular document packets including technical documents on: CDD, GM, health education, and results of KAPS (Guatemala Sur). Distribution of document packets to the participants at Antigua Subregional Child Survival Meeting, Jan. 1986, including technical documents above plus bibliographies on CDD, GM, and PHC education. Distribution of bibliographies to 320 individuals who responded to Needs Identification Survey Questionnaire. Survey on Scientific-Technical Needs analyzed by computer and report being written.	Publication of ASI (Vol. 4, No.3) (N=5300). Distribution of 1 regular document packet: Bibliography on Maternal-Child Nutrition (N=600). Distribution of document packets for 6 different seminars in Costa Rica and Guatemala. Translation of 2 articles from English to Spanish on anthropometric techniques. Distribution of 40 sets of 16 vols. each, on Child Survival to Ministries of Health in sub-region. Responses to 207 requests for information (6,623 photo-copies). Computerization and updating of mailing lists for Honduras and El Salvador. Review, publication, and	Publication of ASI (Vol. 4, No. 4) (N=6000). Distribution of 1 regular document packet: Breastfeeding Program, Roosevelt Hospital, Guatemala (N=1000). Distribution of document packets for 3 different seminars: Growth Monitoring, Honduras (N=50); Home Educators, Guatemala (N=300); and Breastfeeding Program, Roosevelt Hospital (N=150). Distribution of "Bibliography of Materials Available in Documentation Center" to MOHs (N=500). Distribution to MOHs in region and Dominican Republic of Manuals (N=85 each) on: CDD, food consumption surveys, and morbidity. Responses to 170 requests for

Objectives:	Phase I - Planning	Achievements to Date				
	1 Jan.-31 Mar. 1985	Oct. - Dec. 1985	1 Jan.-31 Mar.1986	1 Apr.-30Jun.1986**	1 Jul-30 Sept.1986**	
		reviews of the literature related to: Educational Health, Monitoring and Evaluation for Child Survival, Clinical Dietary Management of the Child with Diarrhea, Household Management of the Child with Diarrhea, Maternal Nutrition during Pregnancy and Lactation, and Body Composition of Pregnant and Lactating Women. All to be published imminently as part of technical packages. Two technical packages distributed to date. Publication of "Monitoring and Evaluation for Child Survival," prepared, and reviewed and approved by a peer review group for implementation in Guatemala. "Epidemiology of Chronic Diarrhea," document prepared, reviewed by a peer review group, and submitted to AID. "Clinical Management of the Child with Diarrhea at the Levels of the Hospital, Day-Care Center, and Community," docu-	Distribution of film on Children's Diarrheal Diseases (Jean-Pierre Poppart) with 100 viewer survey forms to each Central American country. Classification of all INCAP publications since 1948 related to ORT and GM; distributed to Antigua Seminar participants. Elaboration of list of documents produced under AID 596-0115 during 1985 for ROCAP. Elaboration of review procedure for all technical documents produced under AID 596-0115. 1986 Work Plan prepared. Responses to 50 requests for information (2,676 photocopies). Classification of 75 articles on TRO and LM for computer entry. Update list for mailing to libraries, documentation centers, medical, nutrition and nursing schools, and MOH's, of documents available in Center. Review of	distribution of monograph on CDD (N=500). Reproduction of "What Every Mother Should Know About Breast-feeding" (600 copies)***. Reproduction of Manuals on Nutrition Surveys and Morbidity (500 copies each)***. Classification of 100 bibliographic references. Continued collection of photographs and slides (N=125) on child survival. Distribution of slide-tape presentations on "Audiovisual Aids and Educational Technology for Health" by R. Alvarez (17 sets to regional Child Survival Coordinators)***. Preparation of proposal for review of documents produced by Project 0115 (ORT/GM/AFP). With help of 4 doctors contracted on a temporary basis, 18 proposals prepared for research in MCH focusing on high risk/LBW; presented for peer review 12-16 May; prioritized; final document presented (F10).	information (5837 photocopies). Analysis and publication of responses to "User Needs Identification Survey." Classification of 100 bibliographic references. Entry of 200 bibliographic references into computer. Analysis completed of user responses to film, "La Enfermedad Diarreica en el Nino;" 20 copies being made for distribution to countries. Distribution of manuals on censusing (N=500 each). Distribution of 3 slide-tapes on immunological properties of breastmilk at request of PAHO/ Panama. Reproduction of 200 copies of "Proceedings from 1985 Seminar on Growth Monitoring in El Salvador," at request of MOH/ Honduras. Development of instruments for collection of prospective data at community and hospital levels on	

Achievements to Date

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1985	Oct. - Dec. 1985	1 Jan.-31 Mar.1986	1 Apr.-30Jun.1986**	1 Jul-30 Sept.1986**
			ment submitted for peer review and in process of revision.	protocols for Dietary Case Mgt. of Diarrhea.	Data collection for urea-creatinine and milk production completed. Data analysis planned (F10).	HR/LBW indicators and anthropometric measurement of mothers (F10).
			"Indicators of High Risk of Low Birth Weight," review of the literature; analysis of longitudinal studies by INCAP, and preparation of the necessary protocols, all in process. Methodology being developed for measures of bioimpedance and densitometry related to body composition of pregnant and lactating women.	Planning of research on chronic diarrhea, relation between high risk and low birth weight (HR/LBW) (F10), relation between body composition measured by densitometry vis-a-vis bio-impedance, development of theoretical framework for determinants of low birth weight, and preparation of operation research projects in this area.	Preparation of project, based on recommendations from technical assistance, on bio-impedance methodology including measurement of body composition of 120 peasants in Huehuetenango, Guatemala, with objective of predicting body composition of marginally malnourished adults (F10).	Design of methodology for growth monitoring in PHC (HR/LBW) (F10).
			Development of regional human resources data bank in process.		Design of Growth Monitoring Project (F10).	Preparation of final version of proposal on LBW and retardation in postnatal growth (HR/LBW) (F10).
					Approval obtained from Bienestar Social/Guatemala of study protocol for "Nutritional Treatment of Acute Diarrhea." Ancillary preparatory activities including hiring of field team undertaken (F21).	Study begun (Aug.) in ORU at Roosevelt Hospital on dehydrated children with community follow-up (E10).
						Continued development of educational methodology for pre- and postnatal periods (E10).
						Review of proposal: "Psychosocial Risk Factors During Pregnancy, Childbirth, and Postpartum" (E10).
						First draft of research report on adolesent body composition (HR/LBW) (F10).
					Approval obtained from MOH for study: "Epidemiology of Persistent and Chronic Diarrhea" in Sta. Ma. de Jesus, Dept. of Sacatepequez. Equipment ordered	Continued data collection on quality and quantity of milk consumption in rural Guatemala (HR/LBW) (F10).

Achievements to Date

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1985	Oct. - Dec. 1985	1 Jan.-31 Mar.1986	1 Apr.-30Jun.1986**	1 Jul-30 Sept.1986**
					Initial preparations made, and field work begun on alternative models for pigpens at School of Biology at USAC.	progress; final agreement being circulated internally at INCAP (F21).
					Preparation of germinated and prepared foods begun.	"Nutrient Absorption and Clinical Evaluation of Children with Diarrhea Fed with Common Diets;" administrative and technical arrangements, and hiring in process for study (F22). Substantial start-up delays due to hospital strikes and small number of patients filling study population prerequisites.
					Letters of agreement signed, for "Study of Rehabilitation of the Child with Diarrhea" (F23).	
					Letter of agreement signed with Roosevelt Hospital, and participating (tutorial) resident selected for" Study of Nutrient Absorption and Clinical Evaluation of Children with Diarrhea Fed with Common Diets"(F22).	"Nutritional Rehabilitation of Child with Diarrhea;" study in process with 20 homes visited with cases of child diarrhea each followed by 10 hrs. of continuous observation, with associated measurements, dietary analysis and behavior notation (F23). Additional 20 control homes visited. 6 homes with child deaths in previous week also visited. Similar delays to F22 due to small number of appropriate

Achievements to Date

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1985	Oct. - Dec. 1985	1 Jan.-31 Mar.1986	1 Apr.-30Jun.1986**	1 Jul-30 Sept.1986**
						cases. Additional delay due to exigencies of bidding process for pigpen construction.
						"Epidemiology of Persistent Diarrhea;" first work report produced describing training of field personnel, setup of field office, development and pretest of basis protocol, and start of community promotion (F30).

* Derived from Table 8, Project Paper.
** All Category D20, except where otherwise indicated.
*** Non-programmed activities.

COMPONENT 5: INCREASING AVAILABILITY AND IMPROVING DISTRIBUTION OF ORS

This component will deal with the increased demand for ORS and associated distribution problems that are expected to result from other project components. Project consultants will help the countries in procurement planning, resolution of specific production and packaging problems, and increasing the commercial sales of ORS.

Achievements to Date

Objectives:	Phase I - Planning	1 Jan.-31 Mar. 1985	Oct.-Dec. 1985	1 Jan.-31 Mar. 1986	1 Apr.-30 June 1986	1 July-30 Sept.1986
Meet increased demand for ORS generated as a result of other project components and help resolve distribution problems likely to accompany the increased demand.	a. Feasibility studies for national or regional ORS production. b. Feasibility studies for commercial distribution of ORS in each country.	INCAP has, to date, undertaken little significant activity in this area. As noted under Recommendation 3, given the existance of large AID-financed bilateral projects which finance similar activities in Guatemala, Honduras and El Salvador, and which are supplemented by significant multilateral financing fo Child Survival, and given INCAP's general lack of experience in this field, the evaluation team concluded that INCAP should limit its support to (1) encouraging dissemination of information and exchange of experiences within the subregion and (2) further develop its ability to provide ORS quality-control services.				

COUNTRY PROGRAMS EVALUATION

The project contemplates a series of evaluation activities which will help the participating countries evaluate the progress and impact of their Child Survival programs. Information for program evaluation will be drawn from the following activities: a, institutional and program assessements to be conducted in preparing country documents for the first, second and final regional seminars, b, community and provider studies to be conducted in 3 locales in each country during Phase I and repeated in 1 local during Phase III, c, focus group studies to be carried out on an annual basis during the life of the Project, d, a module on knowledge, attitudes and practices regarding diarrheal disease, mortality and morbidity, ORT, growth monitoring and appropiate feeding practices to be developed and inserted in already-programmed national household or similar surveys in each country at the beginning of the Project, e, KAP questionnaires to be developed and administered to all health professional or health service providers taking part in training activities receiving project support or technical assistance, f, morbidity and mortality sentinel areas to be established in at least 4 of the 6 countries which will function throughout the life of the Project, g, regular health sector information systems to be upgraded during the life of the Project so that they can eventually provide each country with the capacity for measuring program progress and impact.

Oct. - Dec. 1985	1 Jan.- 31 Mar.1986	1 Apr.- 30 Jun.1986	1 Jul.-30 Sep.1986
At request of the General Directorate of the Guatemala MOH, INCAP collaborated in the development of the National Simplified Health and Nutrition Survey (ENS) to obtain baseline data on health and nutrition conditions in the maternal-child populations, particularly in rural and marginal urban areas, for planning and evaluative purposes. (Methodological basis: the sentinel post [N-119]). A. See component 1. B. See component 1. Not yet done, although KAP methodology developed and pretested.	Study developed to evaluate impact of vaccination campaigns at sentinel area level. Baseline completed for sentinel areas [N 150 communities]. Design of local programming model. Data entry completed for MCH survey carried out in the lor de Julio Health District, Guatemala Sur.	Data collection for ENS in sentinel areas completed; protocols being revised and data processing initiated (E20). Training provided tp local-level health personnel in vaccination campaign evaluation methodology (E20). Work continued on methodology for sentinel sites (E20).	Final report of ENS published in August. 2nd Sentinel Area Survey instruments designed and tested including mothers' KAP on CDD, ARI, pre- and postnatal control, GM, AFP, and EPI (E20). ORU evaluation protocol is being developed (E20). MOH M&E group from El Salvador visits Guatemala Sentinel Areas to assess feasibility of possible replication (E20).

VI. THE STATUS OF RESEARCH

The research activities (part of Component 4 of the PP, "Increasing the Availability of Scientific and Technical Information") have three general objectives:

- To extend the use of known ORT, GM and AFP technologies as widely as possible.
- To provide more precise technical guidelines for the dietary management of diarrheal disease; that is, the development of appropriate feeding practices; and
- To lay the scientific foundation for further interventions in the area of the important and largely unknown elements of fatal diarrhea, chronic and acute, as well as the mortality and morbidity associated with low birth weight.

This section contains a review of the research that has been undertaken or is currently planned under the Oral Rehydration Therapy, Growth Monitoring and Education Project. The Project Paper contemplated a broad array of research activities which may be classified as either applied or basic research, although most specific research activities will have both applied and basic aspects. The applied research activities can logically be in three, not mutually exclusive categories: anthropologic research, operations research, and monitoring and evaluation.

Progress to date is summarized under these three categories and under "basic" research.

A. ANTHROPOLOGIC RESEARCH

1. Objectives

The principal objectives of the anthropologic research as established in the Project Paper were the following:

- To provide baseline information to be used in the development of other project activities, particularly those of education, training and promotion;
- To assist in the development of those activities;
- To contribute to periodic evaluations of the knowledge, attitudes and practices (KAP) in selected subregional populations; and
- To strengthen subregional capacity in anthropological research.

The anthropologic research was to be explicitly "applied" in character, although it was recognized that there are important contributions to be made by anthropological research to the "basic" research activities as well. Among the principal activities to be carried out were: a series of ethnographic case studies and related focal group work; an undefined contribution to surveys of community and provider KAP related to the major Child Survival interventions; and technical assistance and training.

2. Activities to Date

a. Ethnographic Case Studies and Focal Groups

The Project Paper stipulates as outputs a total of three ethnographic case studies at the household and provider levels in three communities in each country (3 x 6 = 18). To date, a total of 11 such studies have been completed in three countries, Guatemala, El Salvador, and Panama, on the topics indicated in the following tables. In addition, data exist for one community in Nicaragua from a study funded by the United Nations University (UNU); and INCAP has supported studies by a UCLA graduate student that have been carried out in three different ethnic groups in Belize. Honduras, whose MOH felt sufficient data on CDD had been gathered under PROMCOMSI, is preparing a proposal for a KAP study on growth monitoring in three communities. Finally, INCAP has approved a proposal from Costa Rica, although the Costa Rican priorities do not include all project components.

TABLE 3

NUMBER OF HOUSEHOLD ETHNOGRAPHIC CASE STUDIES

TOPICS/COUNTRY	GUATEMALA	EL SALVADOR	HONDURAS	COSTA RICA	PANAMA
ORT/ORS, diarrhea	3	3	*	**	3
Growth monitoring	3****	4	1****	****	3
Education	3	3	*	****	3

* Covered by PROCOMSI (AED).
** MOH considers low priority. UNU studies done in two communities.
**** Awaiting proposal or proposal approval.

TABLE 4

NUMBER OF PROVIDER ETHNOGRAPHIC CASE STUDIES

PROVIDER/COUNTRY	GUATEMALA	EL SALVADOR	HONDURAS	COSTA RICA	PANAMA
MOH	4	4	****	****	3
Pharmacies & shops	1	***	****	****	***
Traditional sector	***	***	****	****	***

* Covered by PROCOMSI (AED).
** MOH considers low priority. UNU studies done in two communities.
**** Awaiting proposal or proposal approval.

The methodology employed for all studies has been consistent with what was proposed in the project documents, with the exception of the use of focal groups. To date, focal group work has been done in only one community in Guatemala and in the case study communities in El Salvador. There are two explanations for this. First, there has not been enough time and staff. The second and more important factor can be attributed to the lack of time in the planning for Phase I activities for the appropriate and adequate application of this methodology. This reflects the optimism that is characteristic of most project planning documents as well as a limited view of the potential for anthropologic findings, both on the side of the suppliers, the anthropologists, and the consumers, institutional users of those findings inside and outside INCAP. Historically, there has been a lack of practical consideration for the process necessary to "market" the findings of anthropologic research; that is, to educate users as to their value and application and, thereby, assure integration of the findings into project implementation.

The publications resulting to date from the ethnographic studies are the following:

LAURENCE, J. Health-Seeking Behavior at the Household Level: Baseline Data on Three Different Ethnic Groups in the Toledo District, Belize. Report. June 30, 1986.

RUIZ DE GALASTICA, M.; HIDALGO, M.; & AYBAR DE SERRANO, C. Conocimientos, Actitudes y Practicas Relacionadas con la Salud y Enfermedad y los Recursos de Salud Utilizados. Panama, R. De Panama. Ministerio de Salud, Departamento Materno Infantil, Departamento de Organizacion Comunitaria. Agosto de 1985.

VIELMAN, L. and HURTADO, E. Informe Final de la Investigacion Etnografica sobre Algunos Aspectos de Salud y Nutricion en la Colonia Juarez, Guanagazapa, Escuintla. Diciembre de 1985.

VILLATORO, E. and HURTADO, E. Informe Final de la Investigacion Etnografica sobre Algunos Aspectos de Salud y Nutricion en Rio Hondo, Malacatancito, Huehuetenango. Diciembre de 1985.

b. KAP Studies

One of the purposes of the anthropologic research is to provide periodic assessments of the knowledge, attitudes, and practices (KAP) of the populations affected by the Project. KAP surveys were to be administered three times during the project lifetime. After an initial survey, the study communities would be revisited halfway through and at the end of the Project to evaluate progress and impact.

To date, activities in this area include the design of survey instruments for use at the household and provider levels. The provider KAP instrument was field tested in the Guatemala Sur Health Area. It has since been revised and field tested and is currently being administered to a sample of 190 health providers in Guatemala.

Similarly, a household KAP questionnaire has been developed and substantially revised. It will be administered in Guatemala beginning in January. Both KAP surveys have been collaborative ventures among INCAP, the Guatemalan Ministry of Health, and USAID/Guatemala. In addition, the Academy for Educational Development has supplied the evaluation component of its HEALTHCOM Project. Preliminary results from this activity are expected during the first half of 1987. The results are expected to contribute significantly to the design of effective health promotion and education interventions in support of Child Survival services.

c. Technical Assistance and Training

In addition to undertaking the specific research activities in the area of anthropology, the project anthropologists, Elena Hurtado and Lisa Vielman, also provide technical assistance in anthropologic matters to project staff working in other areas, and, occasionally, to the Ministries of Health of the involved countries. Their objective is to insure that the findings of anthropologic research are generally known, understood and, where appropriate, applied.

The anthropologists have also begun regular weekly meetings with the education and communication staff, including Information Center staff, and have received requests for ad hoc assistance to other groups; e.g., those working on information transmission, growth monitoring and development, and basic research. There have also been meetings with staff from the Guatemalan Ministry of Health at the central, metropolitan, and area levels, to present research findings and to work on the design of educational messages. These activities included the preparation of a set of standard questions on diarrhea and its management, "Preguntas sobre Diarrhea Sugeridas por el Componente de Antropologia," as part of the technical assistance provided to the Ministries of Health of El Salvador and Guatemala in the preparation of national ORT KAP surveys.

The training carried out under the anthropological subcomponent has included both formal training and participation in other ongoing training activities and/or seminars. Training activities to date have included the following:

- Subregional training course in Applied Anthropological Methodology, based on methodology manual cited below. Tres Rios, Costa Rica, 15-26 Abril, 1985; 17 participants.

- Training of 20 Rural Health Technicians (TRSs) in Guatemala using focal group techniques on the topic of barriers to vaccination in preparation for national vaccination campaigns.

- Training for trainers of social workers in ethnographic methodology for Child Survival in tropical areas, Belize.

- Training for three anthropologists to do field studies, Guatemala.

- Training for five social workers in ethnographic methodology, El Salvador.

- Training for social workers as trainers for ethnographic case study work and in the application of findings to the development of radio messages, Panama.

- Working Group on the Identification of Educational Messages for Mass Communication, including MOH/Guatemala personnel, 19-23 May 1986.

- Working Group for training staff in the Guatemala Sur Pilot Project, 13-23 June 1986.

- 1st and 2nd Seminars on Traditional Medicine, Guatemala, November 1985 and October 1986.

- Training for Rural Health Technicians in the Division of Human Resources, MOH/Guatemala, on the collection of qualitative data for the preparation of educational material, June 1986.

The Project's anthropologists also presented their findings and discussed methodological issues in the following forums:

- National Congress of Nursing, El Salvador, May 1986, where 500 participants attended.

- Presentation of Preliminary Findings to 20 participants from the Guatemalan MOH and PAHO, September 1985.

d. Other Activities

In preparation for the anthropologic research, this project staff produced a field guide, published some preliminary findings and guidance in the INCAP bulletin, carried out a case study in a Metropolitan Health Area (1 de Julio), and did some research on the barriers to vaccination in preparation for the national vaccination campaign in Guatemala beginning in the spring of 1986. The published documentation related to these activities includes:

- INCAP, Manual de Metodologia para Estudios Antropologicos Aplicados a Salud y Nutricion, Tres Rios, Costa Rica, April 1985.
- HURTADO, E. Informe Final de la Investigacion sobre Barreras hacia la Vacunacion, March 1986.
- HURTADO, E. and HERNANDEZ, B. Informe Final del Estudio de Caso del Centro de Salud de la Colonia Primero de Julio, Guatemala, December 1985.
- HURTADO, E., SANCHEZ, G. and ESQUIVEL, A. "Estudios Antropologicos Aplicados a Salud y Nutricion Materno Infantil," Suplemento sobre Nutricion Materno Infantil, Lactancia y Destete, Vol. 3, No. 4, INCAP, August 1985.
- MUNOZ, E. "La Investigacion Antropologica al Servicio del Equipo de Salud," Boletin ASI, en prensa, INCAP, December 1986.
- SCRIMSHAW, S. and HURTADO, E. "Field Guide for the Study of Health-Seeking Behavior at the Household Level," Food and Nutrition Bulletin, Vol. 6, No. 1, pp. 27-45, June 1984.

In addition, on June 1986, a study was conducted to try and find what triggered mothers to bring in their children, once the youngsters started displaying symptoms of dehydration.

The interview guide for this activity was included in Annex 24 to the June 1986 Project Progress Report along with the findings of a small study on post-partum, mother-child interaction in a small sample of 50 mothers at Roosevelt Hospital.

- HURTADO, E. and ROSALES, J.M. Estudio de Ninos Deshidratados, Pediatria del Hospital Roosevelt, Unidad de Rehidratacion Oral, June 1986.
- HURTADO, E. and ROSALES, J.M. Investigacion Operativa de la Interaccion Madre-Recien Nacido en la Maternidad del Hospital Roosevelt, June 1986.

The anthropologic research has also supported the work on the determinants of low birth weight. A draft proposal was prepared and reviewed and included a literature review. Pilot work was conducted at the Roosevelt Hospital including preparation of a budget and a time-line. Because this research will involve a number of interventions which will be determined only

after the initial phase, the budget was prepared for a " typical" intervention. It can be multiplied by the number of interventions required once that number has been determined.

In this context, the anthropological research has also supported field trials of post-natal educational materials. Two audio cassette tapes were developed after a series of interviews and tests of preliminary materials at the Roosevelt Hospital. The tapes have recently been tested for impact in an intervention/control study at the same hospital.

- Perfil del Proyecto para Modificar Factores Psicosociales Durante el Embarazo, Parto y Postparto, June 1986, (Annex 24, June 1986 QR).

- Perfil del Proyecto de Evaluacion de Mensajes Educativos Durante el Postparto en la Maternidad del Hospital Roosevelt, January 1986, (Annex 24, June 1986 QR).

- HURTADO, E. and FISHER, M. Produccion y Pretestado de Mensajes Educativos a Transmitirse Durante el Periodo Postparto en el Departamento de Obstetricia, Hospital Roosevelt, Guatemala, August 1986.

3. Activities Planned for Calendar Year 1987

A number of specific research activities are planned for 1987. All those enumerated here will be conducted in Guatemala, with possible replication of successful efforts in other countries.

a. Revisits to Original Case Study Communities

Each community where ethnographic case studies have been carried out will be revisited to expand on the data base and to investigate further themes of particular interest. The methodologies used will be the focal group in communities already studied, supplemented by additional ethnographic case studies in neighboring communities, as anticipated by the Project Paper.

b. Study of State and Private Pharmacies

The principal investigator, C. Valverde, will conduct a comparative study of the practices of state and private pharmacies when consulted for treatment of child diarrheas. Included in the research will be an inventory of medicines used for diarrhea treatment and most frequent recommendations, observations of the interaction between pharmacist and clients, client exit surveys, and interviews with pharmacists.

c. Health Education

In conjunction with the education and information diffusion activities, two audio-tape presentations will be prepared which will include a booklet

and associated tape. The audiences will be volunteer health personnel, trained midwives and promoters and mothers. The first will be in question-and-answer format, the second, a booklet with drawings on the "novella" model.

d. KAP

A major investment of anthropologic research resources will support the large household KAP survey in Guatemala. This survey has, as one of its ambitious goals, the development of KAP information specific for each of the 24 Health Areas in Guatemala. This disaggregated data, once analyzed, will facilitate the development of area specific health education and promotional messages. This degree of specificity may be critical in Guatemala, a country known for its ethnic, cultural, and linguistic diversity. While data collection should be completed in early 1987, analyses and documentation of the results of this major survey will almost certainly extend into 1988.

e. Other Activities

Anthropologic research activities will continue to support, directly or indirectly, most other project activities. In particular, anthropologic considerations will be incorporated into basic research; e.g., that being conducted on the determinants of low birth weight, and into the relatively new field of operations research. Throughout 1987, and perhaps 1988, however, it appears that the Project should focus more of its resources on the analysis and application of anthropologic data to current operational problems encountered in the delivery of child survival services, while fewer resources and effort are expended on the collection of additional, and, quite possibly, redundant data.

B. OPERATIONS RESEARCH

INCAP's traditional and widely recognized strength is in basic research. In particular, INCAP has achieved world wide recognition for the scientific quality of its nutrition research. Frequently, however, there is a considerable gap between the development of scientific knowledge and its application to every day problems. In the opinion of some regional public health professionals, INCAP's scientific discoveries have not been immune to this problem. Therefore, the Oral Rehydration Therapy, Growth Monitoring and Education Project included operations research activities to help develop methodologies for the application of new scientific knowledge to the problem of improving child survival.

As might be expected, the areas of research most familiar to INCAP, i.e., basic nutrition and anthropologic research, were the first in which project funded activities were undertaken. Operations research, a relatively new field for INCAP, received less attention in the start-up phase of the Project. The principal operations research activity in 1986 was the organization of and participation in a seminar/workshop on operations research by INCAP staff with technical collaboration from PRICOR. Several operations research activities now scheduled to begin in 1987 are described below.

1. Operations Research on User-Provider Interaction

This study was originally intended to investigate patient satisfaction based on research models developed in the United States. Preliminary research indicated that it would be more useful to examine patient demand, compliance, and knowledge levels in response to different interventions, including modifications of service factors; e.g., availability of medicines, adjustment in clinic hours, etc., and educational approaches. The objective of this research is, therefore, to develop ways of making existing resources more productive.

2. Operations Research into ORS Distribution

The focus of this research will be on the feasibility and impact of ORS distribution by traditional health providers, midwives, curers, massagers, etc., in a selected district of Guatemala.

3. Operations Research on Growth Monitoring

Research will be oriented toward the improvement of growth monitoring programs and the design of a growth chart which can be easily used by health personnel and interpreted for and by mothers with relatively little training. Existing community studies have already been reviewed for growth monitoring related content and discussed in relation to strategies for measuring mothers' perceptions of growth and development. Studies done in El Salvador are the most complete in this regard. On the basis of these studies, it has been decided to conduct field trials in at least two Guatemalan communities of several educational techniques, such as asking women to rate and sort a series of photographs of children of varying weights and nutrition status-for-age, and discuss the need for and nature of appropriate treatment.

Of the major child survival interventions, growth monitoring appears to be in the greatest need of operations research. While its potential seems to be at least as great as ORT, immunizations and breastfeeding, there are serious gaps in the public health community's knowledge of how growth monitoring can be done economically and effectively. With what frequency should growth monitoring take place? What risk indicators exist to identify children in greatest need of growth monitoring? What level of health worker should be responsible for growth monitoring? At what age should children receive the greatest attention? Should growth monitoring be done at health posts or in homes or in both? How should growth monitoring be linked to the other child survival interventions? The evaluation team feels that the answers to these and many similar questions merits priority consideration as objectives of operations research. Such research by INCAP could contribute significantly to the creation of an improved balance between basic and applied research.

C. MONITORING AND EVALUATION

The Project contemplates a series of evaluation activities which will help the participating countries evaluate the progress and impact of their Child Survival programs. Information for program evaluation is to be drawn from:

- Institutional and program assessments to be conducted in preparing country documents for the first, second and final regional seminars.
- Community and provider studies to be conducted in three locales in each country during Phase I and repeated in one locale during Phase III, with focal group studies carried out on an annual basis throughout the life of the Project.
- A module on knowledge, attitudes and practices regarding diarrheal disease, mortality and morbidity, ORT, growth monitoring, and appropriate feeding practices to be inserted in already programmed national household or similar surveys in each country at the beginning and end of the Project.
- KAP questionnaires to be administered to all health professionals or health services providers taking part in any and all training activities receiving project support or technical assistance throughout the life of the Project.
- Morbidity and mortality sentinel areas to be established in at least four of the six countries and will function throughout the life of the Project.
- Regular health sector information systems to be upgraded during the life of the Project so that they can eventually provide each country with the capacity for measuring program achievements.

The approaches used to collect the required information are fairly numerous. Several have already been discussed including the KAP surveys and operations research. Several additional areas of activity which will contribute to monitoring and evaluation efforts are described below.

1. Base Line and Follow-up Surveys

These have been carried out at the country level in the form of maternal-child health surveys (Panama 1985, El Salvador 1984, Honduras 1985, and Guatemala 1985). INCAP and Westinghouse have submitted a proposal for a 1987 follow-up survey in Guatemala. INCAP is also providing technical assistance to the MOH in Honduras in support of a national nutrition survey which will be the first national update of the nutrition survey of 1965.

2. Sentinel Systems (Areas and Sites)

The methodology and data collection instruments for sentinel areas (communities) and sentinel sites (health facilities and pharmacies), as well as for service delivery projects will be designed and tested. To date, the concept has been applied in two Health Districts of the Guatemala Sur Health Area. Data have been collected for 120 sentinel areas, each with a population of about 1,000 people. Data include: standard census and environmental sanitation information, pregnancy histories of all women in fertile age, health service utilization, infant mortaltiy and morbidity and weight for age. Sentinel sites are currently being selected and data collection instruments are being tested.

Representatives from the MOH in El Salvador recently made a visit to observe these systems, which they may want to replicate in that country. Honduras and Nicaragua are also applying the sentinel system methodology under UNICEF financed projects, and Panama and Costa Rica are considering using the approach in marginal, high risk provinces and cantons.

3. Institutional Analysis/"Condiciones de Eficiencia"

The performance of institutional analyses in the major management areas essential to the implementation of Child Survival programs (for example, health services administration, logistics, health information systems, financial management, personnel management and training systems) was required by the Project Paper for Phase 1. The Project Paper also included an analysis of the mass communication systems in each country. These were to serve as the analytical base for planning Child Survival interventions at the national level.

It was decided to combine these assessment efforts into a single study per country, utilizing an analytical approach developed in Argentina and expanded upon by PAHO. The analysis of "Condiciones de Eficiencia" assesses the capacity of health services to the efficient and effective. INCAP has developed guidelines, based partly on the guidelines developed by PRITECH of the assessment of national ORT programs, and organized the information to be collected into the following categories: resources; planning, organization, and administration; supervision; training; information systems; logistics; and community education and participation. The methodology has been applied in Panama, Guatemala, and Honduras. El Salvador assessed only its diarrheal disease control program, and Costa Rica carried out the study in a limited geographic area. Both countries will carry out complete national level studies in 1987.

Since it is planned to repeat the "Condiciones" studies in every country every two to three years, the Grupo Tecnico Focal concluded that the methodology should be validated. The methodology was, therefore, applied in all the public sector health facilities in the Guatemala Sur Health Area and the findings compared with the opinions of experienced supervisors. The methodology was found to be quite reliable. Its validity will be tested through the sentinel site surveys. The view of the evaluation team is that the guides used in the "Condiciones" surveys could be shortened, simplified, and made more objective. Furthermore, the time and resources currently

expended in collecting large volumes of information could be advantageously re-allocated to a more in-depth analysis of a more limited amount of data.

D. BASIC RESEARCH

1. Introduction

The evaluation team identified and very briefly reviewed progress in six basic research activities. Since these activities were the principal focus of a visit by Dr. Jon Rohde from September 28 to October 2, 1986, the evaluation team felt its time was better spent focusing on other project activities. For each basic research activity, a brief summary of Dr. Rohde's observations is included below.

2. Risk Factors for Low Birth Weight (LBW)

The research on the indicators of risk of low birth weight and retardation in postnatal growth is one of the priority research areas set forth in the Project Paper and consists of a series of interrelated research efforts. All are oriented toward the study of the determinants of growth retardation and the assessment of preventive and curative interventions which might address the problem. In 1986, a peer review process considered 16 different proposals and recommended the implementation of investigations in the following nine areas:

- Indicator validation including anthropometric indicators for LBW and retardation in postnatal growth, and infection during pregnancy as an indicator of low birth weight;
- Impact of maternal feeding during pregnancy and lactation;
- Impact of modifications to physical and psychosocial factors during pregnancy and birth;
- Impact of reduction in environmental CO through use of smokeless stoves;
- Impact of improved care provided by trained traditional midwives;
- Impact of identification of high risk of LBW and infant and preschool morbidity;
- Impact of growth monitoring;
- Validation and reliability of measurements of urea/creatine in the urine of breastfeeding infants to indicate quantity and quality of breast milk; and
- Use of densitometry, electric bioimpedance and anthropometric measurements to indicate body composition of women in fertile age and of preschool children.

In October, Dr. Jon Rohde made the following comments about research into the risk factors of low birth weight:

> Extensive discussions have been held regarding a study of low birth weight, but no protocol has yet been finalized. Undoubtedly the most pressing need is to do a follow-up study of children who themselves received supplements during pregnancy and early childhood. This study will likely be funded by an NIH grant. Any other studies of low birth weight determinants should attempt to be comprehensive; i.e., not focused on any single factor such as diet, smoke, heavy work, infection, etc. The study should attempt to include all the important parameters. Such a study would undoubtedly be a very large undertaking and may be beyond the capacity of the ORT/GM/E Project.

3. Dietary Management of Children with Acute Diarrhea

The purpose of this research is to develop a home dietary treatment for children with acute diarrhea. To date, the research design has been evaluated and adjusted with outside technical assistance, personnel have been hired and trained, equipment ordered, and the research locale, Hogar Elisa Martinez, prepared. Tests of acceptability of the dietary components are beginning in November.

As indicated below, Dr. Rohde felt that research should be initiated without further reviews.

> Following the February 1986 report and the recommendations by Dr. Ken Brown, the managers of the dietary studies recognized that the studies in the orphanage should focus on optimizing the feeding process, giving priority to the psychosocial variables that affect dietary intake during and following diarrhea. We defined specific objective variables to be measured, including frequency of feeding, variation in diet and its effect on intake, and the potential of alternative feeding and mothering behaviors as means of encouraging a child to eat. We discussed the precise definition of such important variables as the duration of acute diarrhea, the duration of convalescence, the definition of recovery etc. I strongly recommend that studies be initiated and protocols be modified based on experience rather than any further efforts to refine them through discussions. Only experience in the clinical setting can further define how this study can best be carried out.

4. Nutrient Absorption and Evaluation of Children with Diarrhea Fed with Ordinary Diets

The principal purpose of this research is to evaluate nutrient absorption in children during episodes of acute diarrhea and during convalescence; it will be carried out in a hospital context. The protocol has been through a peer review process. To date, arrangements have been made at Roosevelt Hospital, personnel have been hired and trained, and the two first patients have been studied. Problems experienced have included slowness in institutional arrangements and difficulty in finding enough study subjects.

Dr. Rohde made the following observations on this research activity:

Metabolic and absorption studies were reviewed briefly with Dr. B. Torun and a visit made to the Oral Rehydration Unit at Roosevelt Hospital. It is at this level that the digestibility and absorbability, during diarrhea, of alternative diets should be studied. The results should then be used in the studies at orphanages to aid in the appropriate choice of diets for use in feeding trials.

5. Nutritional Rehabilitation of the Child with Diarrhea

The objective of this study is to identify optimal food preparations and the optimal frequency and duration of feeding to assure recuperation in the home of children with acute diarrhea. The study has three phases:

- Phase I focused on the feeding behavior of 20 mothers during and after diarrhea. The site was an aldea in the Guatemala Sur Health Area, Sacoj. This phase has been completed. The methodology used was prospective and included 10 hours of observation during illness, convalescence, and health.
- Phase II will test the impact of alternative feeding mixes on pigs and is programmed for the first quarter of 1987.
- Phase III will provide training to mothers to evaluate the feasibility of change in feeding practices of children with diarrheal disease, using foods available in the home. This phase is programmed for 1987.

On the occasion of his October visit, Dr. Rohde made no substantive comments on this research.

6. Epidemiology of Chronic Diarrhea

This study is concentrating on the natural history and etiology of diarrhea and its nutritional consequences. The study site is Santa Maria de Jesus in the Department of Sacatepequez. To date, personnel have been identified and trained in interview techniques, baseline instruments have been tested, and collection of census data has begun.

Dr. Jon Rohde made the following comments as a result of his review of this activity:

Revisions in the design of research into chronic diarrhea have been carried out and field staff have been recruited and have begun field work. The time required for the collection of extensive dietary data was discussed with both the principal investigator as well as staff of the dietary group. Efforts will be made to establish methods to code and summarize dietary consumption data in order to keep weekly interviews under 20 minutes.

7. Breastfeeding Research

During his October visit, Dr. Rohde had discussions with Dr. B. Garcia concerning studies on breast milk production. He reviewed the data carefully and made the following comments:

> It appears that the variance in breast milk production is so great that 72-hour collection will be necessary. Improved maternal nutrition and large child size, alone, do not appear to account for the increase in breast milk output of some 200 ccs observed in the present studies compared to studies done eight years ago in the same community. Further data collection and possibly multivariate analysis can be expected to clarify the situation.

8. General Comments Concerning Basic Research

In addition to his comments related to specific research activities, Dr. Rohde made the following general comments related to the basic research activities being financed by the ORT/GM/E Project:

> I reviewed the on-going research protocols and found that, as expected, with close technical working relationships with Johns Hopkins investigators, this component is moving forward in a generally effective and well managed fashion. The major problems in the area of basic research have had to do with delays in getting timely technical assistance, with the adjustments that had to be made to research designs as a result of technical assistance, and with bureaucratic red tape encountered in getting the necessary institutional approvals. All the necessary protocols have been prepared for the studies in Guatemala but, until they have been applied over an adequate period, they will not be ready for multicenter replication as envisaged in the Project Paper. There are, however, no apparent reasons why the currently planned research, and its multicenter replication, cannot be accomplished within the project lifetime.

Given the context of the basic research element of the Project, the evaluation team found itself in full agreement with Dr. Rohde. His recommendations regarding simplification of certain activities; for example, simplification of the collection of dietary consumption data for the study of the epidemiology of chronic diarrhea, and his recommendations to rely more on field experience -- for example, his advice to proceed without further review with the study of dietary management of children with acute diarrhea -- were highly compatible with observations the evaluation team made concerning other project activities.

As is discussed elsewhere in this report, however, the evaluation team feels that the chance is fairly remote that the basic research activities being financed by the Project will have a major impact on child survival in the short or medium term. At the present time, operations research and monitoring and evaluation studies appear the most likely research activities to yield substantial support to the child survey programs already underway, and, thus, deserve priority assignment of resources. In addition, anthropologic research seems to have particular importance for Guatemala.

E. CONCLUSIONS CONCERNING RESEARCH

Given the relatively short time the Project has been operating and the small staff available, a large proportion of programmed tasks have been performed. Numerically, the research activities, however, are behind schedule. While a comprehensive range of studies was initially planned -- e.g., all community case studies in all Child Survival topical areas, as well as all focal group follow-up work -- several countries (e.g., Costa Rica and Honduras) had already gathered and/or they wanted to focus on priority issues in priority or strategic geographic areas.

Enough baseline data are, nevertheless, available in all countries to provide an important initial appreciation for the situation at the household and community levels with respect to Child Survival attitudes and practices, generally including the areas of diarrhea management and nutrition, as well as to guide the formulation of survey instruments and the language of health education messages. Still, several substantive gaps remain, most importantly in perceptions of growth and development, provider KAP, and provider/user interaction, particularly interactions external to the public health delivery system; i.e., pharmacies, shops, and traditional healers. The current plan is to fill these gaps by the addition of these elements to ongoing or planned research and by using mini-survey and/or focal groups.

In general terms, however, this evaluation identified four ways in which the research might play a stronger role in the achievement of project objectives. Foremost among the issues in Child Survival is the need to effectively and efficiently apply known technologies to improve the health of infants and young children. Operations research appears to have a key role, along with increased attention, generally, on the part of researchers to support effective communication of the results of their research, to play in support of those who must apply those results to practical problems. There also appears to be a need to further strengthen coordination and management of research activities and, finally, there may be a need to allocate increased funds for research, if all currently contemplated studies are to be completed. Each of the four issues is discussed in more detail below.

1. Operations Research

As mentioned above, relatively little has been done to date in the area of operations research, yet there appear to be many issues involving the application of known and scientifically sound technologies which operations research is ideally suited to address. Operations research, however, has not been a traditional focus of INCAP activity. Capacity and experience in this area needs to be systematically developed, a process which will take time and will require sustained policy support on the part of INCAP's leadership.

The current strategy to set aside a small fund to support a series of micro operations research activities in the individual countries does not appear to be sufficiently geared to adequately capitalize on the potential benefits of operations research. Furthermore, for INCAP to fully support country specific operations research efforts with technical assistance, INCAP needs to further develop its own experience in operations research. As noted above, the evaluation team feels growth monitoring is a field which could

benefit enormously from operations research, in which INCAP has a long-term historical interest and which is key to the achievement of project objectives. The team's preliminary ideas regarding operations research in support of growth monitoring have been discussed above and also in Section III under Recommendation 4.

2. Application of Anthropologic Research Results

The first Child Survival Plans (1985) had to be completed before data were available from the ethnographic and other studies. It does not appear, however, that those data have been incorporated into the second generation of Child Survival Plans (1986) or into the design of training approaches and materials, with the exception of some systematic scrutiny for use in health education messages. The project anthropologists have enthusiastically followed-up on interesting issues that have arisen in the data and have pursued their programmatic implications. In addition, there are numerous continuing ad hoc requests for their collaboration. Thus, it is hard for them to step back from the accumulating data, ask what it all means, communicate their analysis to users, and, together with those users, develop appropriate applications, define data gaps, and determine next steps. In other words, there is no coherent strategy which assures that the insights gained from anthropologic studies are interpreted and appropriately incorporated, in a systematic fashion, into Child Survival programs.

It may be time for the preparation of a summary document, or series of documents, that would summarize and analyze the principal findings from the ethnographic case studies, the KAP studies and other smaller research studies done under the Project. The purpose would be to extract critical insights and concisely list their implications for each project component. It should include a historical account of how anthropologic findings have been used in the Project, to date, as well as an abstract and an informative executive summary.

The complete document, or set of documents, would be disseminated to the Information Center's regular mailing list. The executive summary, covered by an explanatory memo, would be distributed to a much larger population. Despite the concern about an excess of subregional seminars, this topic appears to be sufficiently important to justify a seminar or workshop, either by INCAP or an itinerant who would discuss "The Application of Anthropologic and KAP Data to Program Planning, Design, Implementation, and Evaluation."

A future strategy for anthropologic research can be expected to develop naturally from the process of producing the document, since it should indicate quite clearly information gaps and needs as well as applications for the accumulated information.

A similar exercise might be carried out for the "Condiciones" studies. A summary, analytical document was to have been produced for the initial series of studies. It is important that this should take place prior to the commencement of the second series. The validation of the "Condiciones" methodology through the sentinel sites should be completed and the guides adjusted and simplified as deemed appropriate.

Another summarizing activity could occur through the development of case studies. The capacity for producing these should be further developed in INCAP. Case studies could be important tools for analyzing and documenting the effectiveness and impact of Child Survival programs in conjunction with the results of quantitative surveys. INCAP is in an excellent position to develop this activity which would also complement and strengthen its training and educational activities.

3. Coordination and Management

A first step has been taken through reorganization of the Health and Nutrition Division and the creation of a working group whose focus will be on human resources development, postgraduate courses in public health, anthropology/sociology/psychology, education, communication, and information dissemination. Structurally, this should facilitate the application of anthropologic and other research findings, but the structure will have to be reinforced by process; e.g., regular meetings among the technicians involved and brief, standardized, monthly reports. The anthropologists should also meet explicitly and regularly with the Child Survival Fellow from Johns Hopkins University to review the progress of the epidemiology of chronic diarrhea study, as well as with the AED representative working with the MOH in Guatemala under USAID's HEALTHCOM contract.

In addition, the evaluation team identified some simple management tools which could strengthen the anthropologic research activities, in particular, and the whole range of research activities, in general.

- An activities tracking system or log could be developed for ongoing and projected activities, including technical assistance, and status of resulting documentation. This system should also i lude activities which generate no written product; e.g., [illegible] for doctors on anthropologic methods or promotional visits [illegible] countries.

- Quarterly Status Reports could include a routine and mandatory section on "utilization of data."

- Each research activity could be assigned a number, perhaps from INCAP's standard accounting categories as is done for the basic research activities. Each research study should also be assigned a single, short, permanent working title. The name of the principal investigator should be included on all reports.

- Files could be set up systematically, for example, by topic and activity number. One closed file could contain a single copy and original of all documents.

- Similar documents (e.g., all ethnographic studies) could have, insofar as possible, the same principal format categories and should be prefaced with an abstract and executive summary which can stand alone and which summarizes the methodology, major findings and conclusions, and recommendations for subsequent action. A statement of implications should identify potential

applications for program planning, curriculum design, development of health education messages for providers and clients, monitoring and evaluation, and further testing/research.

- All reports could have a standard cover, a title page, a table of contents and a list of annexes.

- Anthropological protocols and research designs could well pass through a peer review process similar to that which has successfully been applied to basic research. This process should, however, be kept short and simple.

- Another anthropologist and a secretary have been requested for the study of psychosocial risk factors in pregnancy. The volume of work in this area seems to merit the requested support, if the funds are available.

4. Funding

A remaining question is whether the studies planned for both basic and applied research can occur given the programmed resources. The basic research budget will, in 1987, probably be overspent, due to lack of previously programmed funds for data analysis in 1987 when the Computer Center will begin to charge for services, design changes in the diarrheal disease studies, the need for more word processing capacity, the need for more personnel to cover new, additional activities, and the increased cost of lab equipment. Additional funds may be required to finance basic research at the hospital level, to support user and provider KAP surveys and to support monitoring and evaluation activities.

All these requirements appear to be valid, if the research financed by the Project is to have optimal impact. The requirement for additional research funds, however, should be considered in the context of the other recommendations made by this evaluation, many of which deserve priority consideration. Indeed, all future requests for project funds should be evaluated in terms of the potential contribution which the financed activity would make towards the achievement of project objectives in general, and on infant mortality, in particular. If current research activities had been reviewed according to similar criteria, some of the basic research activities might have received lower priority, while other activities, for example, operations research, would probably have received higher priority.

In general, the evaluation team recognized INCAP's ability to make unique contributions to the development and refinement of child survival technologies in Central America through its capacity to undertake basic research. On the other hand, the team felt that applied research, particularly operations research, deserves greater attention, given the marked gaps that exist between the existence of proven technologies and the extent of their application in Central America.

SCOPE OF WORK

I. PURPOSE OF EVALUATION

INCAP has now largely completed Phase I of the ORT, Growth Monitoring and Education Project, 596-0115, and is planning for the first year of Phase II. During the project design, an evaluation was scheduled to assess the adequacy of the project planning, organization and management and to provide guidance in moving forward with Phase II activities. The objective of the evaluation will thus be to assist ROCAP and INCAP in evaluating Phase I accomplishments and Phase II planning for the ORT, Growth Monitoring and Education Project, 596-0115. In addition, the evaluation will assess progress toward the project purpose and recommend measures, if needed, to facilitate achievement of the project purpose.

II. STATEMENT OF WORK

Review:

1. Status of project planning, coordination, management and administration.

2. Status and adequacy of output activities which were to have been carried out under Phase I as outlined in Project Paper (logical framework and Tables 5, 6, 7, 8 and 9).

3. INCAP and country team organization and preparation for Phase II activities.

4. Status of baseline information for evaluating country programs and project goal and purpose. The evaluation team should review the project purpose indicators to determine their adequacy. If necessary, they should recommend more appropriate ones in terms of specificity and linkage to the project purpose.

5. The evaluation team should develop a monitoring and evaluation plan for the Project and identify what data need to be collected to track progress towards achievement of the project purpose.

6. Status of Phase II implementation plans and progress on research activities whose results will be incorporated into technical and educational packages during the second phase of the Project.

7. Adequacy, timeliness, and effectiveness of outside consultants and technical assistance to the Project.

III. METHODS AND PROCEDURES

The proposed schedule for the evaluation is as follows:

- o August 13-15: Review of project documents in U.S.A.
- o August 17: Project team travels to Guatemala.
- o August 18-19: Briefings with ROCAP and INCAP project staff. General review of Phase I activities and Phase II planning.
- o August 20-21: Team leader and education specialist travel to El Salvador for discussions with INCAP liaison official counterparts. Management expert remains in Guatemala reviewing project management, coordination and administrative issues.
- o August 22: Entire team is in Guatemala. Continue review of Phase I activities and begin review of individual components with INCAP staff.
- o August 25-26: Meetings with Guatemalan counterparts and site visits in Guatemala.
- o August 27-28: Complete review of project components and prepare draft reports.
- o August 29: Debriefings with INCAP and ROCAP project staff and management.
- o August 30: Team departs Guatemala.
- o September 1-5: Team leader completes final report.

IV. COMPOSITION OF EVALUATION TEAM

The consultant team will be made up of a specialist in primary health care service delivery, an education and training specialist and a management expert who will serve as team leader. The team will be joined by the PRITECH Project Backstop who will help provide general guidance and examine the anthropological research components.

V. REPORTS

A draft report in English will be submitted to INCAP and ROCAP before the team departs Guatemala. Eight copies of the final report will be submitted, in English, to ROCAP within 30 days of completion of the consultancy. The ROCAP project manager and evaluation officer will be responsible for review and approval of the final report.

The contractor evaluation report will include the following:

1. An executive summary, including purpose of the evaluation, methodology used, findings, conclusions and recommendations. It will also include comments on development impact and lessons learned. It should be complete enough so that the reader can understand the evaluation without having to read the entire document, i.e., the summary should be a self-contained document.

2. A copy of the scope of work under which the evaluation was carried out. The methodology used will be explicitly outlined and will include an assessment of how (and how successfully) the project or program being evaluated fits into the Mission's overall strategy. Any deviation from the scope will be explained.

3. A listing of the evaluation team, including host country personnel, their field of expertise and the role they played on the team.

4. A clear presentation of the evaluation recommendations, in a separate section of the report, for the reader's convenience.

5. A discussion of any previous evaluation(s) reviewed, with a brief description of conclusions and recommendations made in the earlier report(s). The evaluators will briefly discuss the effectiveness of the previous evaluation(s), in their review of the project.

6. A separate section on the development impact of the Project. This section should clearly present the development benefits resulting from the Project.

7. A table of contents.

VI. RELATIONSHIPS AND RESPONSIBILITIES

The evaluation team will work under the general guidance of the ROCAP Director. The AID liaison officer will be Elena Brineman, the ROCAP Food and Nutrition Advisor. Principal counterparts will be the INCAP Coordinator, Dr. Hernan Delgado, and the INCAP project team.

VII. TIMING AND DURATION

The evaluation will be carried out between August 13 and August 30, 1986. The team will be authorized to work Saturdays while in Guatemala, making a total level of effort of fourteen days for each of the team members, plus two travel days. Up to five additional work days will be authorized for the team leader to complete the final evaluation report in the U.S. or his place of residence.

PRIMERA EVALUACION EXTERNA
NOVIEMBRE 1986

PROYECTO DE TERAPIA DE REHIDRATACION ORAL, MONITOREO DEL CRECIMIENTO Y EDUCACION EN ATENCION PRIMARIA DE SALUD

AGENDA REVISADA

Noviembre 3

08:30 - 09:45	ROCAP
10:00 - 10:15	Director INCAP
10:15 - 12:00	INCAP - Presentacion
12:00 - 13:30	Almuerzo
13:30 - 17:30	INCAP Presentacion

Noviembre 4

08:30 - 10:30	Administracion General del Proyecto
10:30 - 12:00	Planificacion y Evaluacion

Noviembre 5

08:30 - 12:00	Fortalecimiento del Sistema de Entrega de Servicios y Sistema de Informacion/Aumento de la Disponibilidad de SRO.
13:30 - 16:30	Adiestramiento de Personal, Educacion a la Poblacion y Difusion de Informacion.

Noviembre 6

08:30 - 12:00	Reuniones Individuales
13:30 - 16:30	Cooperacion Tecnica

Noviembre 7

08:30 - 12:00	Reuniones Individuales
13:30 - 16:30	Investigacion: Basic y Aplicada Sector Privado

Noviembre 10 Visitas al Hospital Roosevelt, Guatemala Sur

Noviembre 11	Guatemala: MSPAS, PAHO, UNICEF, USAID
Noviembre 12	Trabajo en Equipo/Preparacion Informe Preliminar
Noviembre 13	
14:00 - 17:30	Reunion Final INCAP/Equipo
Noviembre 14	
15:00 - 17:00	Reunion Final USAID/Equipo

AGENDA

Lunes 3 de noviembre

10:00 - 10:15	Reunion con Director INCAP a.i.	Lic. Ernestina Ardon
10:15 - 10:30	Receso	
10:30 - 11:15	Revision General del Proyecto	Dr. Hernan Delgado
11:15 - 12:00	Administracion y Evaluacion	Lic. Mireya Palmieri
12:00 - 13:30	Almuerzo	
13:30 - 14:15	Adiestramiento y Educacion para la Salud	Lic. Rodrigo Alvarez Lic. Ernestina Ardon
14:15 - 15:00	Cooperacion Tecnica	Dr. Enrique Rodriguez
15:00 - 15:30	Centro de Documentacion y Difusion de Informacion Cientifico Tecnica	Lic. Vernoica de Palma
15:30 - 16:00	Estudios Antropologicos	Lic. Elena Hurtado
16:00 - 16:30	Monitoreo y Evaluacion	Dr. Hernan Delgado
16:30 - 17:00	Investigacion Basica	Dr. Hernan Delgado Lic. Carmen Dardano Dr. Mario Molina Dr. Benjamin Torun Dr. Jose Ramiro Cruz

EVALUATION TEAM BIODATA

Peter N. Cross, Team Coordinator

Mr. Cross has completed course work for a Ph.D. in Economic and Social Development at the University of Pittsburgh. He has worked for MSH for over 11 years, undertaking short- and long-term assignments in 20 countries. He was MSH's logistics and management advisor to the Ministry of Health of Afghanistan for nearly four years. During numerous short-term assignments, he assisted with the conceptualization and design of current AID-funded projects in Burma, North Yemen, the Eastern Caribbean, and Bolivia. He designed and led, during its initial phases, a logistics system operations research project in Dominica. Currently, Mr. Cross is Coordinator of MSH's field team in Honduras, which is collaborating with that country's Ministry of Public Health to improve the effectiveness and efficiency of the rural health system.

Roy Brown, Child Survival Specialist

Dr. Brown has an M.D. from Columbia University, an M.P.H. from the University of North Carolina's School of Public Health and a doctorate from the London School of Tropical Medicine and Hygiene. He is currently Chairman of the Community Medicine Department at St. Joseph's Hospital and Medical Center in Paterson, New Jersey; is a primary health care advisor to CARE; and teaches maternal-child health and nutrition courses at the Columbia University Center for Population and the New York Medical College. He is a consultant editor to Clinical Pediatrics at J. B. Lippincott and on the Editorial Advisory Board of the Journal of Tropical Pediatrics. Dr. Brown has published extensively on experimental immunology; family planning; general public health; hematology; parasitology and infectious disease; tropical public health; malnutrition, growth and development and nutritional assessment; and nutrition education. He has performed a number of consultancies for MSH and for a variety of non-governmental organizations.

Catherine Crone Coburn, Management Expert

Ms. Coburn is currently Director of MSH's large consortium project, Family Planning Management Training. She holds a B.A. in Latin American Studies, an M.A. in Adult Education and an M.S. in Management from the Sloan School at the Massachusetts Institute of Technology. Her professional experience includes the provision of technical assitance in over 35 countries in project planning, training, materials development and evaluation to a wide variety of agencies including Ministries of Health, Education, and Community Development; cooperatives; rural development agencies; women's associations; family planning associations; and agricultural extension programs. Before joining MSH in 1981, Ms. Coburn was an adjunct faculty instructor in

Health Education at the Columbia University School of Public Health and worked for seven years as Director of Technical Services for World Education. She has published extensively in the areas of management training, education, family planning and personnel management.

Polly F. Harrison, Project Backstop, Anthropologist

Dr. Harrison is the backstop for the INCAP/ROCAP Project in MSH's PRITECH Office in Washington, D.C. Prior to that, she was the Coordinator for MSH's Honduras Project and the Coordinator for MSH's Latin American Programs. She is a development anthropologist with a specialization in medical anthropology and has a Ph.D from the Catholic University of America and a B.A. in English from Mount Holyoke College. Prior to coming to MSH in 1983, Dr. Harrison was a Regional Social Science Advisor and a faculty member of the Development Studies Program for the Agency for International Development. These positions followed years of residence and independent consulting in the fields of health and economic development in most of the countries of Latin America. Since joining MSH, Dr. Harrison has performed evaluations, project and research design, and training in Haiti, the Dominican Republic, Honduras, Panamá, Guatemala, Bolivia, Peru and India in the fields of maternal-child health and nutrition.

Gary R. Heald, Education and Training Specialist

Dr. Heald is Associate Professor in the Department of Communication at Florida State University in Tallahassee and has a Ph.D. in Mass and Organizational Communication Research from Michigan State University. He has been a research consultant and co-principal investigator on the AID-funded Rural Satellite Communication Project in Peru from 1980 to the present, and he was principal investigator on the Nicaraguan rural health communication program in 1977-78. He has published in the areas of communication evaluation, media effects, public education, management design and community needs assessment. He has wide experience in both the public and private sectors in marketing and market research and in corporate communication. Dr. Heald has additional technical strengths in information systems and computer applications. His ties to Latin America began when he was a Peace Corps Volunteer placed at the Communication Center in the Ministry of Agriculture in Colombia from 1970 to 1972.

PROJECT DESCRIPTION*

DESCRIPCION DEL PROYECTO

I. Objetivo y Propósito

El objetivo de este Proyecto es reducir la mortalidad infantil y la desnutrición severa en Centroamérica y Panamá. El Propósito es aumentar el uso efectivo de terapia de rehidratación oral, control de crecimiento y prácticas correctas relacionadas de alimentación en Centroamérica y Panamá.

II. Resumen del Proyecto

Dependiendo de la disponibilidad de fondos a AID para este propósito y del mutuo acuerdo de las partes interesadas a proceder, se planea utilizar $8,000.000 en fondos de donación de AID durante los cinco años de vida del proyecto. El Instituto de Nutrición de Centroamérica y Panamá (INCAP) proporcionará el equivalente a $1,100.000 para apoyar el proyecto durante la duración del mismo.

El proyecto ayudará a INCAP a emprender este importante esfuerzo incluyendo promoción, asistencia técnica, educación y entrenamiento, diseminación de información, investigación aplicada y operacional y otras actividades de apoyo técnico para asistir a los paises centroamericanos, Panamá y Belice a aumen-

PROJECT DESCRIPTION

I. Goal and Purpose

The goal of this project is to reduce infant mortality and severe malnutrition in Central America and Panamá. The purpose of the project is to increase effective use of oral rehydration therapy, growth monitoring and appropriate related feeding practices in Central America and Panama.

II. Project Summary

Subject to the availability of funds to AID for this purpose and to the mutual agreement of the parties to proceed, AID grant funds of $8,000,000 are planned for the five year life of the project. The Institute of Nutrition of Central America and Panama (INCAP) will provide the equivalent of $1,100,000 in support of the project over the life of the project.

This project will help INCAP undertake a major effort involving promotion, technical assistance, education and training, information dissemination, applied and operations research and other technical support activities to assist the Central American

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* From Proyect grant agreement (Convenio de Proyecto de Donación), 14 December 1984.

tar el uso de terapia de rehidratación oral (TRO), control de crecimiento (CC), prácticas correctas de alimentación (PCA) y educación relacionada en el tratamiento y prevención de casos de enfermedad diarréica y desnutrición severa. El proyecto responde a un mandato al INCAP por parte de los seis Ministros de Salud de Centroamérica y Panamá para asistirles en sus programas de nutrición en el cuidado primario de salud y de sobrevivencia infantil. INCAP, aumentada con asistencia técnica y administrativa de Estados Unidos y Centroamérica, llevará a cabo el proyecto utilizando una metodología de ejecución de tres fases.

Fase I: Promoción y Planificación - Los primeros doce meses del proyecto incluirán actividades diseñadas a mejorar los planes y estrategias nacionales. Visitas promocionales identificarán los líderes e instituciones claves, se desarrollarán lineamientos de planificación y se llevarán a cabo estudios específicos para proporcionar la base analítica del proceso de planificación. Estas actividades culminarán en un seminario regional y en seminarios nacionales en los cuales se revisarán y aprobarán los planes de ejecución para los países individuales. Además de llevar a cabo una serie de estudios a nivel nacional necesarios para propósitos de planificación, el INCAP, a través de aumentos de personal, desarrollo de material educativo, expansión del centro de documentación e iniciación de actividades de investigación, irá aumentando su capacidad de proporcionar efectiva transferencia de tecnología.

countries, Panama and Belize to increase use of oral rehydration therapy (ORT), growth monitoring (GM), appropriate feeding practices (AFP) and related education in the treatment and prevention of cases of diarrheal disease and severe malnutrition. The project responds to a mandate given INCAP by the six min-inters of health to assist them with their nutrition in primary health care and child survival programs. INCAP, augmented with U.S. and Central American managerial and technical assistance, will carry out the project using a three-phase implementation methodology.

Phase I: Promotion and Planning - The first twelve months of the project will include activities designed to improve national strategies and plans. Promotional visits will identify key institutions and leaders, planning guidelines will be developed, and specific studies will be carried out to provide the analytical base for the planning process. These activities will culminate in a regional seminar and national seminars at which implementation plans for the individual countries will be reviewed and agreed upon. In addition to carrying out a series of studies at the national level needed for planning purposes, INCAP will be increasing its ability to provide effective technology transfer by augmenting its staff, developing educational materials, expanding an information clearing house, and starting research activities.

Fase II: Ejecución - Esta fase se desenvolverá durante los cuarenta y ocho meses restantes del proyecto. Se diseñarán actividades para resolver dificultades especificas a nivel nacional y para proveer la tecnologia necesaria para llevar a cabo los programas nacionales. Aunque el énfasis relativo variará de pais a pais, las actividades; (1) reforzarán los sistemas de entrega de servicios de salud y sistemas relacionados de información de evaluación y monitoreo; (2) mejorarán los conocimientos técnicos y habilidades de los proveedores y recipientes de cuidados de salud a través de entrenamientos, educación y desarrollo de programas de comunicación de masas; (3) expanderán la disponibilidad y distribución de sales de rehidratación oral (SRO); (4) proporcionarán información técnica y cientifica, y (5) incrementarán la investigación requerida para tratar efectivamente la enfermedad diarréica y sus consecuencias nutricionales.

Phase II: Implementation - This phase will take place during the remaining forty-eight months of the project. Activities will be designed to resolve specific constraints at the national level and provide the technology needed to carry out the national programs. While the relative emphasis will vary from country to country, activities will: (1) strengthen health service delivery systems and related information systems for evaluation and monitoring; (2) improve the technical knowledge and skills of health care providers and recipients through training, education and development of mass communications programs; (3) expand the availability and improve the distribution of oral rehydration salts (ORS); (4) provide scientific and technical information; and (5) increase research required to deal effectively with diarrheal disease and its nutritional consequences.

Fase III: Evaluación - Esta fase se llevará a cabo simultáneamente con los últimos seis meses de ejecución de la Fase II. Se evaluarán los programas a nivel nacional para ver, si el propósito general del proyecto regional de aumentar el uso de TRO, GC y PCA se alcanzó. Los resultados serán discutidos en un seminario regional y un informe final recomendará futuros cursos de acción para tratar los problemas de enfermedad diarréica y desnutrición.

Phase III: Evaluation - This phase will take place simultaneously with the final six months of implementation under Phase II. National level programs will be evaluated to see, if the overall purpose of the regional project to increase the use of ORT, GM and AFP was achieved. The results will be discussed at a regional seminar and a final report will recommend future courses of action in dealing with the problems of diarrheal disease and malnutrition.

A. Elementos del Proyecto

El proyecto proporcionará financiamiento parcial en las siguientes áreas para apoyar el esfuerzo a incrementar el uso de TRO, CC y PCA:

1. Promoción de Estrategias y Planes Efectivos Nacionales: Este componente: (a) mobilizará el apoyo para el uso extendido de TRO, CC y PCA en los países de la región; (b) ayudará a INCAP a enfocar y canalizar sus esfuerzos a nivel nacional de toma de decisión, instituciones y areas problemáticas; y (c)aumentará la participación del sector privado y mejorará la coordinación de donadores. INCAP asistirá a los países a desarrollar y/o mejorar sus estrategias y planes para incrementar el uso de TRO, CC y PCA a través del apoyo a ciertas actividades específicas relacionadas. Los lineamientos de planificación para las estrategias y planes nacionales se desarrollarán y estudios de conocimientos, actitudes y prácticas (CAP) se llevarán a cabo para proporcionar la información requerida sobre los grupos objetivos y proveedores de cuidados de salud. También se llevarán a cabo estudios específicos a nivel nacional para examinar la administración de programas, producción y sistemas logísticos de SRO, administración financiera y requerimientos de presupuesto, enfoques para incrementar ventas comerciales y mejorar la efectividad de programas de comunicación de masas. Se discutirán, refinarán y promocionarán las estrategias y los planes durante seminarios tanto a nivel regional como nacional.

A. Project Elements

The project will provide partial financing in the following areas in support of the effort to increase use of ORT, GM and AFP:

1. Promotion of effective National Strategies and Plans: This component will: (a) mobilize support for extending the use of ORT, GM and AFP in the countries of the region; (b) help INCAP focus and channel its efforts on the key national level decision makers, institutions and constraints; and (c) increase private sector involvement and improve donor coordination. INCAP will assist the countries to develop and/or improve their strategies and plans for increasing the use of ORT, GM and AFP by supporting a number of related specific activities. Planning guidelines for national strategies and plans will be developed and knowledge, attitudes and practices (KAP) studies will be carried out to provide the required information on the target populations and health care providers. Specific studies will also be carried out on a national basis to examine program management; ORS production and logistic systems; financial management and budgetary requirements; approaches for increasing commercial sales and for making mass communications programs more effective. The strategies and plans will be discussed, refined and promoted at both regional national level seminars.

2. Reforzamiento de Entrega de Servicios de Salud y Sistemas de Información: Este componente ayudará a ejecutar las recomendaciones de la administración general y de otros estudios efectuados como parte del esfuerzo para promover y desarrollar estrategias y planes nacionales efectivos que se dirijan a los problemas claves institucionales identificados en los planes especificos nacionales. Este componente también reforzará la capacidad de los sistemas nacionales de información de salud para monitorear y evaluar la mortalidad infantil, enfermedad diarréica y situación de desnutrición y el progreso de los programas nacionales para incrementar el uso TRO, CC y PCA. Se efectuarán talleres sobre varios de estos temas y el personal y consultores de INCAP proporcionarán asistencia técnica y entrenamiento cuando sea necesario.

3. Mejoramiento de las Habilidades de Trabajadores de Comunidad, Profesionales y Paraprofesionales y Educación Pública: Este componente ayudará a ejecutar la recomendación del "Estudio de Proveedor" CAP al utilizar el personal y consultores de INCAP para llevar a cabo cursos de entrenamiento y proporcionar material de entrenamiento relacionado para mejorar habilidades de TRO, CC y PCA entre médicos, enfermeras, farmacéuticos, nutricionistas, paraprofesionales y trabajadores de comunidad actualmente ejerciendo. La currícula de educación básica y profesional y planes de entrenamiento para trabajadores de comunidad se revisarán para incluir material apropiado sobre el uso de TRO, CC y PCA.

2. Strengthening Health Service Delivery and Information Systems: This component will help implement the recommendations of the general management and other studies carried out as part of the effort to promote and develop effective national strategies, ~~and~~ plans and address the key institutional constraints identified in the specific national plans. This component will also strengthen the capability of national health information systems to monitor and evaluate the child mortality, diarrheal disease, ~~and~~ malnutrition situation and the progress of national programs to increase the use of ORT, GM and AFP. Regional and national workshops will be held on several of these topics and technical assistance and training will be provided by INCAP staff and consultants as ~~needed~~ the need arises.

3. Improving Professional, paraprofessional and Community Worker Skills and Public Education: This component will help implement the recommendation of the KAP "Provider Study" by using INCAP staff and consultants to carry out training courses and provide related training materials to improve ORT, GM and AFP skills among physicians, nurses, pharmacists, nutritionists, paraprofessionals and community workers currently in practice. Professional and basic education curricula and training plans for community workers will be revised to include appropriate material on the use of ORT, GM and AFP. This component will also use INCAP staff and consultants to help the countries to

Este componente también utilizará el personal y consultores del INCAP para ayudar a los países a mejorar/desarrollar sus programas de comunicación de masas y utilizará la información y recomendaciones incluidas en el "Estudio Comunitario" CAP.

4. Aumentando la Disponibilidad de Información Técnica y Científica: Este componente diseminará la información necesaria para mejorar el uso efectivo de TRO, CC y PCA en la región y llevar a cabo la investigación relacionada. Un centro regional de documentación proveerá servicios tales como un boletín trimestral, materiales para seminarios, talleres y conferencias; envíos de materiales seleccionados a consumidores objetivos; desarrollo de material técnico de trabajo, etc. Las actividades de investigación examinarán formas para extender el uso de tecnologías conocidas y relacionadas de TRO lo más ampliamente posible y desarrollar tecnologías prácticas adicionales, técnicas de manejo de casos y paquetes educacionales requeridas para tratar efectivamente la enfermedad diarréica y las consecuencias nutricionales. Investigación aplicada, incluyendo estudios multicentrales, se llevará a cabo en cuatro areas: (1) tratamiento dietético/rehabilitación nutricional de niños con diarrea; (2) factores de alto riesgo para bebés de bajo peso natal y sus intervenciones apropiadas; (3) epidemiología de la diarrea crónica y su relación con la desnutrición; y (4) impacto del programa en la morbilidad y mortalidad.

improve/develop their mass communications programs, and will draw on the information and recommendations contained in the KAP "Community Study".

4. Increasing the Availability of Scientific and Technical Information: This component will disseminate the information needed to improve the effective use of ORT, GM and AFP in the region and carry out related research. A regional clearing house will provide services such as a quarterly newsletter; materials for seminars, workshops and conferences; mailings of selected materials to targeted users; development of technical working papers, etc. Research activities will examine ways to extend the use of known ORT and related technologies as widely as possible and to develop additional practical technologies, case management techniques and educational packages required to deal effectively with diarrheal diseases and their nutritional consequences. Applied research, including multicenter studies, will be carried out in four areas: (1) dietary treatment/nutrition rehabilitation of children with diarrhea; (2) high risk factors for low birth weight babies and appropriate interventions; (3) epidemiology of chronic diarrhea and its links with malnutrition; and (4) program impacts on morbidity and mortality.

5. Aumentar la Disponibilidad y Mejorar la Distribución de SRO: Este componente tratará con la mayor demanda y problemas de distribución de SRO que se esperan resultarán de los otros componentes del proyecto. Consultores del proyecto ayudarán a los paises en planificación de suministros, resolución de problemas especificos de producción y empaque y en aumentar las ventas comerciales de SRO.

B. Arreglos de Desembolso de la Donación y Administración del Proyecto

El Director de INCAP tendrá la responsabilidad general de la coordinación y ejecución del propuesto programa. Un coordinador de proyecto será nombrado por INCAP para asumir las responsabilidades diarias de coordinación, administración y ejecución del programa. Un Comité de Dirección del Proyecto de INCAP, compuesto por el Director de INCAP, el coordinador del Proyecto, el Jefe de la División de Planificación de Alimentación y Nutrición y el Coordinador de Asistencia Técnica, será el responsable de revisar y aprobar todos los planes del proyecto y las principales decisiones del proyecto antes de que sean sometidos con contrapartes de alto nivel de los paises miembros y de instituciones colaboradoras.

Un comité interno de apoyo técnico, compuesto del personal de INCAP con responsabilidades principales o de enlace para efectuar las actividades del proyecto, se establecerá y se encabecerá por el Coordinador del

5. Increasing Availability and Improving Distribution of ORS: This component will deal with the increased demand and distribution problems for ORS that are expected to result from the other project components. Project consultants will help the countries in procurement planning, resolution of specific production and packaging problems and increasing commercial sales of ORS.

B. Project Administration and Grant Disbursement Arrangements

The Director of INCAP will have overall responsibility for the coordination and implementation of the proposed program. A project coordinator will be named by INCAP who will have day-to-day project coordination, management and implementation responsibilities. An INCAP Project Directing Committee, made up of the INCAP Director, Project Coordinator, Head of the Food and Nutrition Planning Division and the Technical Assistance Coordinator, will be responsible for reviewing and approving all project plans and major project decisions before they are submitted to ROCAP and for contacts with high level member country counterparts or collaborating institutions.

An internal technical support committee, made up of INCAP personnel having principal or liaison responsibilities for carrying out project activities will be established and will be headed by the Pro-

Proyecto. Este comité será responsable de desarrollar planes detallados de ejecución y de la administración y ejecución del proyecto.

Un comité regional de consejo técnico, compuesto de coordinadores de cada equipo de trabajo de los países, proveerá orientación sobre los planes de proyecto y ejecución. Los miembros de este grupo de consejo también servirán como el enlace principal entre INCAP y los equipos de trabajo de cada país.

Todo el financiamiento del proyecto será administrado directamente a través de INCAP. A solicitud del INCAP, ROCAP contratará y supervisará el componente de asistencia técnica de Estados Unidos. INCAP será responsable de presentar al Contralor de ROCAP las liquidaciones mensuales dentro del formato requerido. INCAP asignará un número de cuenta específico a este proyecto que contendrá los elementos de costo correspondientes a los rubros del presupuesto del proyecto financiado por AID: administración y evaluación, promoción y entrenamiento, asistencia técnica (no Estados Unidos), información técnica y diseminación, operaciones y estudios de evaluación, investigación, servicios comunes y asistencia técnica de Estados Unidos. Utilizando fondos de Servicios Comunes, INCAP también contratará los servicios tiempo completo de un asistente administrativo y de un contador para el control financiero y administrativo del proyecto.

Los desembolsos se proyectarán anualmente y se revisarán semianualmente a través de planes detallados de trabajo presentados por INCAP a ROCAP.

ject Coordinator. This committee will be responsible for developing detailed project implementation plans and for project implementation and management.

A regional technical advisory committee, made up of coordinators of each country's task force, will provide guidance on project plans and implementation. The members of this advisory group will also serve as the principal liaisons between INCAP and the country task forces.

All project funding will be administered directly through INCAP. At the request of INCAP, ROCAP will contract ~~for~~ and supervise the U.S technical assistance component of the project. INCAP will be responsible for presenting the ROCAP Controller with monthly vouchers ~~in~~ in the required format. INCAP will assign a specific account number to this project which will contain cost elements corresponding to the budget line items of the project funded by AID: management and evaluation, promotion and training, technical assistance (non-U.S.), technical information and dissemination, operations and evaluation studies, research, overhead or common services and U.S. technical assistance. Using overhead funds, INCAP will also hire a full-time administrative assistant and an accountant for project administrative and financial control.

Expenditures will be projected annually and revised semi~~a~~annualy in detailed work plans presented to ROCAP by INCAP.

PROJECT BUDGET
PRESUPUESTO DEL PROYECTO

(US$ 000)

Project Component Componente del Proyecto	ROCAP	INCAP	Counterpart Countries Paises Contraparte	Total
I. Management & Evaluation Administración y Evaluación	1,298	650	---	1,948
II. Training Entrenamiento	1,403	---	730	2,133
III. Technical Assistance (non-U.S.) Asistencia Técnica (no EE.UU.)	1,000	---	250	1,250
IV. Technical Information and Dissemination Información Técnica y Diseminación	217	---	---	217
V. Operations & Evaluation Studies Operaciones y Estudios de Evaluación	719	---	550	1,269
VI. Research Investigación	916	200	---	1,116
VII. Overhead Servicios Comunes	1,666	250	---	1,916
Sub-Total	7,219	1,100	1,530	9,849
VIII. U.S. Technical Assistance Asistencia Técnica (EE.UU)	781	---	---	781
TOTAL	8,000	1,100	1,530	10,630

NOTE: A 10% yearly compound interest rate has been contemplated for contingencies and inflation.

NOTA: Se ha contemplado una taza de interés anual del 10% para imprevistos e inflación.

LIST OF PEOPLE INTERVIEWED

AID/Guatemala

Liliana Ayalde
John Massey

AID/Honduras

Tom Park
Barry Smith

ROCAP

Elena Brineman
Elizabeth Burleigh
Nadine Plaster
William Schoux

PAHO/Washington

Juan Urrutia

MANAGEMENT SCIENCES FOR HEALTH/Honduras

Gustavo Corrales
Juan de Dios Paredes

INCAP

Country Liaison Officers

Zillyham Rojas - Costa Rica
Francisco Pineda - El Salvador
Julia Elvir - Honduras
Carlos Samayoa - Panamá

Headquarters/Guatemala

Rebeca Arrivillaga
Rodrigo Alvarez
Rosa Amurrio
Luis Octavio Angel
José Cruz
Hernán Delgado
Carmen Dárdano
Bertita Garcia
Mario Garcia
Elena Hurtado
Arnulfo Noguera
Patricia Palma

Verónica de Palma
Arturo Palmieri
Mireya Palmieri
Enrique Rodriguez
Benjamin Torún
Lisa Vielman

Guatemala

Ministry of Health

José Lima Argueta - Director, Supervision and Evaluation Division
Baudilio Sajché - Acting Chief, Maternal-Child Health
Eduardo Tejada de la Vega - Director, Applied Programs Division
Otto Zeissig - Chief, Epidemiology

Roosevelt Hospital

Rodolfo Mac Donald - Hospital Director
Carlos Meneses - Chief, Department of Pediatrics

El Milagro Health Center (Guatemala Sur Health Area)

Ismael De León - TSR
Waldemar López - TSR
Ana Leticia Roano - EPS
Lilian Colón - Social Worker

Honduras

Ministry of Health

Yanuario García - Director General de Salud
Germán Hernández - Jefe, Departamento de Nutrición
Alejandro Melara - Director, División Salud Materno Infantil

DOCUMENTS REVIEWED

This Annex contains:

1. A list of all documentary annexes to the Quarterly Reports (QR) provided by INCAP to ROCAP, beginning 1 January 1985* up to 30 September 1986.

2. A list of other documents reviewed by the team as part of their evaluation activity.

1) LIST OF ANNEXES, QUARTERLY REPORTS

1 JAN.-31 MAR. 1985

Annex 1
Coordinación de Actividades Prioritarias para la Supervivencia Infantil en Centroamérica y Panamá en 1985. Report of coordination meeting among PAHO, UNICEF, INCAP, 17-18 January, Washington, D.C.

Annex 2
Guias de Diagnóstico y Planificación. Revised guidelines for Child Survival assessment and planning.

Annex 3
Manual Sobre Estudios Antropológicos Aplicados a Salud y Nutrición.

Annex 4
Documentos Técnicos Producidos en el Trimestre Enero al 31 de Marzo,1985: Inmunizaciones, Monitoreo del Crecimiento, Control de Enfermedades Diarreicas, and Control de Enfermedades Respiratorias Agudas.

1 APRIL-30 JUNE 1985

Annex 1
Reporte, Curso Subregional sobre Estudios Antropológicos Aplicados a Salud y Nutrición, Costa Rica, 15 - 26 April.

1 OCTOBER-31 DECEMBER 1985

Annex 1
Metodologia de la Encuesta Nacional Simplificada de Salud y Nutrición Materno Infantil en Guatemala, January.

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* Annexes for July - Sept. 1985 trimester are not included since that QR was not provided.

Annex 2
Proceedings, Seminario Taller de Educación para la Salud y Participación Comunitaria, San Pedro Sula, Honduras 10-13, September 1985.

Annex 3
Evaluación de las Condiciones de Eficiencia de los Servicios de Salud Materno Infantil, El Salvador: MSPAS, PAHO, INCAP, July-August 1985.

Annex 4
R. Alvarez, Tecnologia Educativa en Salud, Guatemala: INCAP, July.

Annex 5
Proyecto Subregional: Apoyo al Monitoreo y Evaluación de Supervivencia y Desarrollo Infantil, Guatemala: PAHO, UNICEF, INCAP.
Working Document prepared for Interagency meeting at INCAP, 28-29 November 1985.

JAN.- 31 MARCH 1986

Annex 1
Seminario-Taller Subregional sobre Supervivencia Infantil y Nutrición en Atención Primaria de Salud, 27-31 Enero 1986: Documento de Trabajo para Discusión.

Annex 2
Plan General de las Jornadas Nacionales de Vacunación 1986: Enmarcadas dentro del Plan de Supervivencia Infantil, Guatemala: MSPAS, UNICEF, OPS/OMS, Club Rotario Internacional, INCAP, AID, February.

Annex 3
Memoria de la Reunión Interagencial sobre el Apoyo al Plan de Supervivencia Infantil, Managua: OPS/OMS, UNICEF, INCAP, 24-25 February.

Annex 4
Memoria de la Reunión No. 1 del Grupo Técnico Focal de Supervivencia Infantil, Guatemala, 5-7 March.

Annex 5
Necesidades Prioritarias de Salud en Centroamérica y Panamá, Plan de Supervivencia Infantil: Actividad Subregional, Capacitación en Gestión Administrativa (Supervisión y Suministros). (primer borrador) March 1986.

Annex 6
Missing.

Annex 7
Missing.

Annex 8
Circular, Agradecimiento por Respuestas al Formulario sobre Necesidades de Información y Envio del Paquete de Documentos,

elaborado para participantes del Seminario-Taller Subregional sobre Supervivencia Infantil y Nutrición en Atención Primaria en Salud, 27-31 January 1986. (Note: includes two articles translated from English, including Nabarro and McNab, "A Simple New Technique for Identifying Thin Children".)

Annex 9
Formulario de Evaluación de la Pelicula "La Enfermedad Diarreica en el Niño."

Annex 10
Missing.

Annex 11
Copies of publications from Centro de Documentación:
- Suplementos sobre Nutrición Materno-Infantil, Lactancia y Destete, April, August, and December 1985.
- Brochure, Sistema de Difusión e Intercambio de Información Cientifico-Técnica en Alimentación y Nutrición, DICTAN

Annex 12

Documentación Complementaria del Proyecto sobre TRO, MC, y EAPS (memo covering transmission of 1985 documentation requested by ROCAP):

- Protocol, instructions, and questionnaires for Sentinel Areas (began December 1985, concluded March 1985, in areas under 2000 population in 150 communities)
- Planes Quinquenales Globales de Supervivencia Infantil
- Planes Quinquenales Operacionales
- Planes de Acción, all for 1986-1987, presented as Action Plan at January 1986 Subregional Child Survival Seminar (Antigua Guatemala)
- Anthropological User Case Studies, Guatemala (Escuintla, Huehuetenango)
- Provider Case Studies (including methodology used)
- Report on Encuesta Simplificada de Salud y Nutrición en el Distrito de Salud de El Milagro (describes methodology and results from Community MCH Surveys)
- Protocol and Instructions for Community Survey, El Salvador
- Evaluation of CED Program, El Salvador
- All "documentos-pais" prepared on the basis of assessment of education and communications systems
- Memorias de Reuniones Técnicas sobre Monitoreo del Crecimiento y sobre Educación y Comunicación en Salud y Nutrición
- All documents prepared by the Centro de Difusión de Información with project funds during 1985
- Report on Short Course in Child Survival and materials prepared for that project
- Results of tabulations of number of individuals in tutorial training under the project during 1985
- Work plans for Palmieri, Conde, and Alvarez
- Combined proposal for the Monitoring and Evaluation and Evaluation subcomponents
- Detailed budget for development of educational materials and

methods (related workplans for Conde and Alvarez)
- Technical Assistance Requirements for 1986
- Review Process for Child Survival Documents
- Discussion of Issues Related to the Private Sector, Local Programming Draft Guide and Tutorials for doctors and key public sector health personnel
- Annex Concerning the Integration of the Monitoring and Evaluation Subcomponents (includes subregional budget for this activity) and for Anthropological Studies.

Annex 13
E. Hurtado, Informe Preliminar de la Investigación sobre Barreras hacia la Vacunación, Guatemala, 24 March 1986.

APRIL-JUNE 1986

Annex 1
Jornada de Vigilancia Alimentaria Nutricional, San José, Costa Rica, 24-27 June 1986.

Annex 2
Work Plan, Revision of Norms for Prevention and Control of Dehydration due to Diarrheal Disease, Tegucigalpa, 16-21 June 1986.

Annex 3
Workshop for the Design of the Nacional Supervision and Evaluation System, MSPAS. Guatemala, 18-21 June 1986.

Annex 4
Report of the Ninth Meeting of the Regional Scientific Working Group on Diarrheal Diseases, INCAP, Guatemala, 21-24 April 1986.

Annex 5
Guia para la Elaboración de la Linea Base de Información sobre la Situación y los Programas de Salud Materno Infantil de Istmo Centroamericano (documento de consulta para presentarse a los Coordinadores Nacionales de Supervivencia Infantil), prepared by working group, Guatemala, 2-4 June 1986.

Annex 6
Metodología para la Elaboración de Temas y Subtemas a Ser Incluidos en los Módulos Integrados de Supervivencia Infantil, para el Personal Multidisciplinario de los Niveles Central, Regional y Local.

Annex 7
Instrumentos de Diagnóstico sobre Conocimientos, Actitudes y Prácticas en Supervivencia Infantil, Guatemala, April 1986.

Annex 8
Plan Subregional de Apoyo a los Recursos Humanos en Supervivencia Infantil. OPS/OMS, PASCAP, INCAP, UNICEF, June 1986 (obsolete; replaced by Document # 2, Annex 9, Quaterly Report July-Sept. 1986).

Annex 9
Informe del Taller de Desarrollo de la Enseñanza Materno Infantil Realizado en San José, Costa Rica, del 9 al 10 de Junio de 1986.

Annex 10
Missing.

Annex 11
Publicación Bimensual del Suplemento "Así," February and April 1986.

Annex 12
Bibliografía sobre Nutrición Materno-Infantil, Lactancia y Destete. J. 1986.

Annexes 13-18
Seis Paquetes para Diferentes Seminarios:

- Seminario de Educadoras para el Hogar y Promotoras de Mejoramiento del Hogar, Guatemala, 22-23 August 1985.
- Documentos Técnicos I-V, Proyecto Regional de Promoción de la Lactancia Materna producidos en 1984.
- Seminario-Taller Sub-Regional sobre Evaluación de Actividades de Promoción de Lactancia Natural, Costa Rica, 14-18 April 1986.
- IV Curso Internacional de Perinatología, Guatemala, 20-22 May 1986.
- Documentación Jornada Materno-Infantil, Colegio de Médicos y Cirujanos de Guatemala y Comisión de Educación Médica Continua con la colaboración de la Comisión Nacional para la Lactancia Materna, INCAP, y Asociaciones de Gineco-Obstetricia, Perinatología, Pediatría, Guatemala, 1986.
- Paquete de Documentos para Jornadas Departamentales Materno-Infantiles (organizadas por el Colegio Médico de Guatemala a través de la Comisión de Educación Médica Continua).

Annexes 19 and 20
Translations of: D. Nabarro and S. McNab, "A simple new technique for identifying thin children." OMS (WHO), Informe de una Discusión sobre el Propósito, Uso e Interpretación de Indicadores Antropométricos de Estado Nutricional, Geneva, 12-14 October 1983.

Annex 21
Distribución de Bibliografía sobre Supervivencia Infantil.

Annex 22
Monografía sobre Control de Enfermedades Diarréicas. INCAP, Guatemala 1986.

Annex 23
Propuesta sobre Revisión de Documentos Producidos por el Proyecto TRO/MC/EAPS.

Annex 24
Protocolo de Estudios Antropológicos (Interview Form for Health Provider/Facility Interviews, Health Center, 1o. de Julio, Guatemala Sur).

- Case Studies of Primary Health Care Resources: The Health Care Provider Perspective
- E. Hurtado and J. M. Rosales. Estudios de Niños Deshidratados, Pediatria del Hospital Roosevelt, Unidad de Rehidratación Oral
- Perfil de Proyecto para Modificar Factores Psicosociales de Riesgo durante el Embarazo, Parto y Postparto, 6 April 1986
- E. Hurtado and J. M. Rosales, Investigación Operativa de la Interacción Madre-Recién Nacido en la Maternidad del Hospital Roosevelt.

Annex 25
Metodología y Resultados del Estudio para Evaluar Jornadas de Vacunación en Guatemala.

Annex 26
Informe Final de Evaluación de Condiciones de Eficiencia en Panamá, June 1985 (2 vols.).

Annex 27
Programa de Proyectos: Prevención y Tratamiento del Retardo del Crecimiento Fisico y la Morbilidad Infantil a través de Acciones de Atención Primaria en Salud. -- Contents:

- Validation of Indicators
  - Validation of simple anthropometric indicators predicting retardation in intrauterine growth (O. Aquino, R. Arrivillaga, H. Delgado, T. Gonzáles-Cossio)
  - Operations research into birth weight as an indicator of high risk infant mortality and morbidity (H. Delgado)
  - Relation between urea-creatine and milk consumption in infants for evaluation of nutrition interventions (B. Garcia, T. Gonzáles Cossio, B. Torún)
  - Bioelectrical impedance and body composition (T. Gonzáles-Cossio, E.Diaz, H. Delgado)
- Specific Interventions for Diminishing the Impact of Low Birth Weight on Postnatal Growth
  - Conduct of nursing mothers and milk production (T. Gonzáles-Cossio)
  - Eating habits in pregnant and lactating women with respect to the small child (B. Garcia, H. Delgado, M. Molina)
  - The diet of lactating mothers and milk production (T.Gonzáles-Cossio)
  - The relationship between infections during pregnancy and low birth weight (R. Hurtado, H. Delgado)
  - Interventions to modify psychosocial risk factors during pregnancy and childbirth (E. Hurtado)
  - Relationship between age at menarche and body composition (H.Delgado)
  - Use of lead-containing utensils and iron levels (R.Arrivillaga)
  - Impact of Vitamin C in citrus fruits in preventing

iron-deficiency anemia (R. Hurtado, H. Delgado)
Proposal for possible interventions for controlling diarrheal disease through improvements in potable water and solid waste disposal (R. Amurrio)
Evaluation of the impact on birth weight of reducing concentrations of environmental carbon monoxide (Lorena Stoves) (R. Amurrio)
Effectiveness of popular techniques for introducing health concepts (E. Conde)

- Service Delivery Models
  Useful information for health services delivery in Guatemala (M.Garcia)
  Detection of risk of low birth weight, and infant and preschool mortality and morbidity (O. Aquino, R. Arrivillaga, Amurrio, R. Hurtado, T. Gonzales-Cossio)
  Growth monitoring in primary health care (T. Gonzáles-Cossio, M.Garcia, H. Delgado)
  Evaluative research into maternal-child health care provided by the traditional midwife (H. Delgado).

Annex 28
F. Barros, R. Martorell, and S. Scrimshaw. Consultant Report on INCAP Projects in the Area of Risk Factors of Low Birthweight, Neonatal Mortality, and Lactation Performance. July 1986 (draft).

Annex 29
T. Cossio, B. Garcia, and H. Delgado (with review by J.P. Habicht). Estudio del Valor de la Urea, la Creatinina, el Peso y la Edad como Predictores de la Ingesta de Leche en Lactantes Alimentados Exclusivamente al Seno. INCAP, July 1986. (Preliminary results; internal draft document not for circulation or citation).

JULY-SEPTEMBER 1986

Annex 1
Seminario-Taller sobre Supervivencia Infantil en Guatemala, 24-26 July 1986.

Annex 2
Cursillo sobre Monitoreo y Evaluación sobre Supervivencia Infantil (no date).

Annex 3
Proposal, Seminario Taller sobre Sistemas de Información en Salud en Honduras, 28 July-1 August 1986.

Annex 4
Program, Seminario-Taller "Revisión y Análisis de la Segunda Edición de las Normas del Programa Control de Enfermedades Diarreicas." Tegucigalpa, 21-25 July 1986.

Annex 5
Seminario-Taller para la Revisión del Borrador de Normas de Crecimiento y Desarrollo del Niño con Enfoque Integral, Tegucigalpa, 25-29 August 1986.

Borrador de Normas de Crecimiento y Desarrollo del Niño con Enfoque Integral. Tegucigalpa: MSP, DGS, Division Materno Infantil/Depto. de Atención al Niño. July 1986.

Annex 6
Proposal for Capacitación en Servicio para el Personal de Salud en el Programa CEDRO, con Enfasis en Terapia de Rehidratación Oral. San Salvador, 8 August 1986.

Annex 7
Conocimientos, Actitudes y Prácticas Ideales de Madres con Niños Menores de Dos Años, Lactantes y Embarazadas sobre Salud y Nutrición (borrador, en revisión). INCAP, Septiembre 1986.

Annex 8
Síntesis de la Reunión Interagencial sobre Educación para la Salud en Supervivencia Infantil. 31 July-1 August 1986. Guatemala: INCAP, OPS, UNICEF. September 1986.

Annex 9
Plan de Acción del Componente de Apoyo a los Recursos Humanos en el Plan Subregional de Supervivencia Infantil, 1986-87.

Annex 10
J.R. Cruz, F. Cano, and P. Cáceres. Entrenamiento Tutorial en Técnicas de Laboratorio para el Diagnóstico Microbiológico de Enfermedad Diarreica. INCAP: Programa de Infección, Nutrición e Inmunologia, División de Nutrición y Salud. No date; includes budget.

Annex 11
ASI, (Vol. 4, No. 4). August 1986.

Annex 12
Trimestral Publication of Regular Paquetes:
Programa de Lactancia Materna, Hospital Roosevelt, Guatemala, 1986.

Annex 13, 14, 15
Three Packets Prepared for Different Seminars by Centro Regional de Documentación, INCAP:
- Seminario Taller sobre Normas de Crecimiento y Desarrollo, Tegucigalpa, Honduras, 25-29- August, 1986.
- Bibliografía sobre Control de Enfermedades Diarreicas, September 1986.
- Seminario de Educadoras para el Hogar y Promotoras de Mejoramiento del Hogar, Guatemala, 27-28 Augusto 1986.

Annex 16
Listado de Documentos (por materia), Central Regional de Documentación, April 1986.

Annex 17
Technical Documents:
- Manual sobre Control de Enfermedades Diarreicas (H. Delgado and V. Valverde) June 1986.
- Manual de Encuesta de Consumo de Alimentos (H. Delgado and V. Valverde). June 1986.
- Manual de Morbilidad

(NOTE: These are Manuals 1, 2, and 3, respectively, in a series of 5 planned: those listed plus Manual on Epidemiologic Investigation and those listed below as Annex 20. Each manual contains the corresponding research protocol(s).

Annex 18
M. Fischer and V. de Palma. Necesidades de Información Cientifico-Técnica sobre Supervivencia Infantil en Centro America y Panamá. (Results from Questionnaires Sent to Users by the Centro de Documentación Regional: N=4000, with 7.5% [N=300] response).

Annex 19
Manual de Censo Transversal de Población y Vivienda y Actualización Prospectiva de un Censo (V. Valverde and H. Delgado), June 1986.

Annex 20
PAHO. Training Module, Tratamiento de Diarrea (Curso sobre Habilidades de Supervisión). December 1984.

Annex 21
Instruments for Data Collection on Dehydrated Children, with Community Control, Observation, Hospital Roosevelt:
- Seguimiento de Niños Deshidratados Investigados
- Control entre Vecinos de Niño Deshidratado

Annex 22
E. Hurtado and M. Fischer. Producción y Pretestado de Mensajes Educativos a Transmitirse durante el Periodo Postparto en el Departamento de Obstetricia, Hospital Roosevelt. (Pilot Study of Postpartum Behavior). Guatemala. August 1986.

Annex 23
Informe de los Estudios Antropológicos de El Salvador: Componente de Diarrea.
Estudios Antropológicos sobre Supervivencia Infantil y Comunicación en Cuatro Comunidades de El Salvador. San Salvador: MSPAS with INCAP. September 1986.

Annex 24
Informe Final: Encuesta Nacional Simplificada de Salud y Nutrición Materno Infantil. Guatemala: MSPAS and INCAP. August 1986.

Annex 25
Formulario e Instructivo para la Segunda Encuesta en Areas Centinelas en Guatemala. No date.

Annex 26
Programa de la Visita de Observación del Grupo Técnico de Monitoreo y Evaluación de Supervivencia Infantil del Ministerio de Salud Pública de El Salvador. Guatemala, 3-5 September 1986.

Annex 27
Plano para la Construcción de Jaulas Metabólicas para Cerdos.

Annex 28
Informe de Trabajo No. 1, Proyecto Epidemiología de Diarrea Persistente/Santa Maria de Jesús, August-September 1986. INCAP. 16 October 1986. (Author unattributed).

ANNEX F

LIST OF PROJECT ACCOUNTING CATEGORIES

A.00 Administration and Evaluation (Administración y Evaluación)

- A.10 Personnel (Personal)
- A.20 Materials and Equipment (Material y Equipo)
- A.22 Operating Expenses (Gastos de Operación)
- A.30 Process and Impact Evaluation (Evaluación del Proceso e Impacto)

B.00 Training (Adiestramiento)

- B.10 First Regional Seminar (Primer Seminario Regional)
- B.40 Assistance in Preparation of Country Documents and Status Assessments (Asistencia para Preparación de Documentos-Pais y Evaluación de su Estado)
- B.50 Subregional Courses (Cursos Subregionales)
- B.60 National Courses and Seminars (Cursos y Seminarios Nacionales)
- B.70 Travel and Per Diem for Trainers for Regional and National Courses (Viajes y Viáticos de Profesores para Cursos Regionales y Nacionales)
- B.80 Assistance to National Seminars and Courses (Asistencia para Seminarios y Cursos Nacionales)
- B.90 Technical Meetings of Experts (Reuniones Técnicas de Expertos)
- BAO Tutorial Training (Cursos Tutoriales)
- BBO Development and Testing of Educational Methodologies (Desarrollo y Prueba de Metodologias de Capacitación)

C.00 Technical Assistance (Cooperación Técnica)

- C.10 Travel and Per Diem (Viajes y Viáticos)
- C.20 Training for INCAP Professionals and CA/P Experts (Cursos de Capacitación de Profesionales de INCAP y Expertos de CA y Panamá)
- C.30 Short-Term Consultants (Asesores a Corto Plazo)

D.00 Technical Information Dissemination (Difusión de Información Técnica)

- D.20 Publication of Newsletter, Technical Reports, and Dissemination of Information (Publicación de Cartas Informativas, Informes Técnicos, y Difusión de Información)

E.00 Operations and Evaluation studies (Investigación Evaluativa y Operacional)

- E.10 Anthropological Studies (Estudios antropológicos)
- E.20 Monitoring and Evaluation/Sentinel Areas (Monitoreo y Evaluación/Areas Centinelas)
- E.30 Operations Research (Investigación Operacional)

F.00 Research (Investigación)

- F.10 Risk Factors of Low Birthweight (Factores de Alto Riesgo de Bajo Peso al Nacer)
- F.20 Nutritional Rehabilitation of Children with Diarrhea: Hospital and Community Studies (Rehabilitación Nutricional de Niños con Diarrea: Estudios Hospitalarios y Comunitarios)
- F.21 Dietary Treatment of Children with Acute Diarrhea (Tratamiento Alimentario Nutricional en Niños con Diarrea Aguda)
- F.22 Nutrient Absorption and Clinical Evaluation of Children with Diarrhea Fed with Ordinary Diets (Absorción de Nutrientes y Evaluación Clínica de Niños con Diarrea Alimentados con Dietas Comunes)
- F.23 Nutritional Rehabilitation of the Child with Diarrhea (Rehabilitación Nutricional del Niño con Diarrea)
- F.30 Etiology of Persistent and Chronic Diarrhea (Etiología de la Diarrea Crónica)
- F.40 Multicenter Studies (Estudios en Multicentros)

G.00 Indirect Costs (Gastos Indirectos)

SUMMARY OF EXTERNAL TECHNICAL ASSISTANCE

EXTERNAL TECHNICAL ASSISTANCE, I: VARIOUS SOURCES

The technical assistance summarized in this section was provided from a number of sources. Where a consultancy produced a direct, formal document or trip report, its title is presented in capital letters.

1985

C. Kendall, S. Scrimshaw, G. Sanchez, M. Tristan, and J.J. Hurtado. With E. Hurtado and A. Praun, constituted teaching staff for Curso Sub-regional sobre Estudios Antropologicos Aplicados a Salud y Nutrition.
15-26 April.

J. Rohde, National Academy of Sciences.
Presentation of: Conferencia sobre la Enfermedad Diarréica y su Manejo Clinico Dietético.
7 June.

J. Tulloch, WHO/Geneva
CONSULTANCY TO HOLD DISCUSSIONS ON EVALUATION OF CDD ACTIVITIES IN THE CENTRAL AMERICAN SUBREGION: TRIP REPORT.
10-14 June.

1986

M. Fischer.
Technical assistance to Documentation Center on 1986 Work Plan.
2-10 January.

A. de Gatica and L. Toriello.
Review, updating, and expansion of mailing list for Suplemento sobre Nutrición Materno Infantil, Lactancia y Destete.
Trimester: 1 April-30 June.

M. Griffiths, Manoff International.
Working group on selection of messages from anthropological data for use in Child Survival activities.
12-20 June.

J. P. Habicht.
Technical assistance in analysis of data from study on the relationship between urea-creatine and milk consumption.
June.

C. Drasbek, PAHO.
TECHNICAL ASSISTANCE IN REVIEW OF CHILD SURVIVAL DOCUMENTATION GENERATED IN THE SUBREGION AND STANDARD EVALUATION INDICATORS:
July.

J. M. Ticas.
Acting Technical Officer (Oficial Medico); temporary liaison officer between INCAP and the MSPAS, Guatemala.
Trimester: July-September.

Lic. Concepción Aguliar.
Review of pedagogical aspects of manual on child growth and development.
Trimester: July-September.

Lic. Rice, PRICOR.
Course on Operational Research.
4-17 August.

EXTERNAL TECHNICAL ASSISTANCE, II: MSH/PRITECH

The following technical cooperation was provided through the MSH/PRITECH Project and includes support from the Academy for Educational Development (AED), the Johns Hopkins University (JHU), and PATH.

1985

F. Hartman and R. Bates.
MANAGEMENT TRAINING SEMINAR FOR INCAP STAFF, WITH SUMMARY AND RECOMMENDATIONS.
17 Feb.-1 March.

J. Brace.
PLANNING FOR INFORMATION DISSEMINATION NEEDS (MEMO).
March.

C. Overholt.
Assistance with Financial Guidelines for Child Survival Assessments.
February.

P. Harrison
Review of KAP Protocols.
March.

R. Northrup, J. Rohde and R. Simpson.
Review of Training Needs.
June.

P. Harrison and D. Berry.
Workshop on Use of Data for Planning Child Survival Programs.
5-9 August.

E. Booth.
Workshop on Training and Communication.
August.

S. Scrimshaw.
Analysis of Community Studies.
August.

R. Black
REVIEW OF RESEARCH DESIGN FOR STUDY OF THE EPIDEMIOLOGY OF CHRONIC DIARRHEAL DISEASE: TRIP REPORT.
September.

K. Brown.
CONSULTANCY ON INCAP RESEARCH PROGRAM ON NUTRITIONAL ASPECTS OF DIARRHEA: TRIP REPORT.
10-14 September.

P. Harrison and P. Spain.
EVALUATION OF PANAMA BREASTFEEDING PROJECT.
October-November.

P. Harrison and R. Northrup.
TECHNICAL ASSISTANCE PLAN.
November.

1986

P. Harrison
Participation in Subregional Seminar-Workshop on Child Survival, Antigua, Guatemala.
27-31 January.

K. Brown.
REVIEW OF INCAP RESEARCH PROJECT ON NUTRITIONAL ASPECTS OF DIARRHEA: TRIP REPORT.
11-14 February.

H. Reid.
DESIGN AND EDITORIAL CONSULTANCY FOR INCAP: TRIP REPORT.
17-21 March.

A. Bartlett.
CONSULTANT REPORT: FIRST VISIT, STUDY OF EPIDEMIOLOGY OF PERSISTENT AND CHRONIC DIARRHEA.
April.

S. Scrimshaw.
TECHNICAL ASSISTANCE TO ANTHROPOLOGY COMPONENT: TRIP REPORT.
6-16 May.

F. Barros, R. Martorell and S. Scrimshaw.
CONSULTANT REPORT: INCAP PROJECTS IN THE RISK FACTORS OF LOW BIRTH WEIGHT, NEONATAL MORTALITY, AND LACTATION PERFORMANCE.
12-16 May.

A. Bartlett.
CONSULTANT REPORT: SECOND VISIT, STUDY OF EPIDEMIOLOGY OF PERSISTENT AND CHRONIC DIARRHEA.
25 July.

J. Tomaro and R. Arce.
CONSULTANT REPORT: INCAP AND THE PRIVATE SECTOR -- COLLABORATION IN THE FIELD OF ORAL REHYDRATION THERAPY.
18 July.

H. Lukaski and A. Prentice.
BIOELECTRICAL IMPEDANCE METHODOLOGIES FOR BODY COMPOSITION STUDIES: REPORT AND SUMMARY OF RECOMMENDATIONS.
18-22 August.

P. Harrison.
Consultancy on Protocols for User-Provider Interface Study.
25-29 August.

S. Scrimshaw.
CONSULTANCY ON ANTHROPOLOGICAL COMPONENT AND HIGH RISK OF LOW BIRTH WEIGHT STUDIES: TRIP REPORT.
17-26 September.

J. Rohde.
CONSULTANCY REPORT: INCAP MONITORING AND EVALUATION AND OVERALL PROJECT ISSUES.
28 September-2 October.

NOTES ON MOTHERS' IDEAL KAP AND AUDIOVISUAL AID

During the course of the evaluation, members of the evaluation team had the opportunity to review in detail two documents related to the ideal knowledge, attitudes and practices of mothers with young children. The evaluation made detailed comments on these documents which are included here in the belief that they will be of some use in the further development of these tools.

Part I reproduces the document "Conocimientos, Actitudes y Practicas (CAP) Ideales de Madres con Niños Menores de 2 años, Lactantes y Embarazadas." Comments by Dr. Jon Rohde, Dr. Roy Brown and Dr. Polly Harrison appear directly on the document in capital letters.

Part II contains Dr. Roy Brown's comments on the booklet that accompanies the audio tape on "Lo que toda Mama Debe Saber sobre la Diarrea" by Elena Hurtado and Verónica de Palma.

CONOCIMIENTOS, ACTITUDES Y PRACTICAS (CAP)

IDEALES DE MADRES CON NINOS MENORES DE 2 ANOS,

LACTANTES Y EMBARAZADAS

SOBRE: Monitoreo de Crecimiento Fisico
Monitoreo de Desarrollo
Alimentación Infantil
Alimentación Materna
Tratamiento de Rehidratación Oral
Prevención de la Diarrea
Infecciones Respiratorias Agudas (no incluido)
Programa Ampliado de Inmunizaciones (incompleto)

(GENERAL COMMENTS BY REVIEWERS:

AN EXCELLENT CONCEPT AND A STRONG BEGINNING.

NOW, RE-READ EACH POINT AND SEE IF IT STANDS ALONE, E.G.:

- "KNOWS DANGER OF DIARRHEA" should be "KNOWS DIARRHEA CAN BE FATAL AND ALWAYS IMPAIRS A CHILD'S NUTRITION."
- CONSULT YOUR ANTHROPOLOGISTS FOR GUIDANCE IN APPROPRIATENESS OF BOTH MESSAGE AND CONTENT.
- BE SURE LOGIC OF SEQUENCE FOLLOWS THE LOGIC OF PREGNANCY, CHILDBIRTH, PUERPERIUM, PREVENTION, AND ILLNESS/CURING.

Guatemala, August 1986

(Reviewed as part of mid-term evaluation by Rohde, Brown, and Harrison.)

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TEMA: MONITOREO DE CRECIMIENTO FISICO

POBLACION OBJETIVO: Embarazada

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Aumento de peso dentro de un patrón Aumento de peso adecuado = feto crecimiento adecuado (GOOD) - Crecimiento uterino dentro de patrón = feto crecimiento adecuado (NOT CLEAR) - Salirse de patrón = feto con riesgo de desnutrición o muerte - Estado de salud materno = afecta crecimiento del feto (OK, BUT WHAT DO YOU MEAN BY "STATE OF HEALTH"?) - Del tercer mes en adelante peso periódicos (MONTHLY?) - Importancia consulta temprana (MEANING?) al sospechar embarazo problemas de salud (BE PRECISE) IMPORTANT MESSAGES: "YOU ARE WHAT YOU EAT" "YOUR FOOD MAKES YOUR BABY"	- Importancia de asistir al control peso en función desarrollo del feto y salud materna (IMPORTANT CONCEPT: DESIRE TO GROW [HERSELF] DURING PREGNANCY IN ORDER TO HAVE HEALTHY BABY) COMMENT: HIGH RISK IS A LOT OF THINGS, NOT JUST MATERNAL NUTRITION. .IT'S HISTORY OF PREMATURITY/ LOW BIRTH WEIGHT, AGE, PARITY, PREVIOUS PROBLEMS WITH BIRTHING AND PREGNANCY, INTERVAL.	- Asistir a consulta temprana y en forma periódica - Que pregunte ?como está su peso, que significa y que hacer? - Que hagan caso cuando la refieran IMPORTANT MESSAGES: "EATS EACH DAY FOR THE SAKE OF HER UNBORN CHILD" "REST DAILY" (SEE COMMENTS NEXT PAGE)

* AS INDICATED ON COVER SHEET, SEQUENCING SHOULD FOLLOW NATURE. SEE NEW NUMBERS.

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TEMA: MONITOREO DE DESARROLLO

POBLACION OBJETIVO: Embarazadas

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Estado tensional de la madre afecta al feto (PROVE IT!) - Estimulación temprana es importante desarrollo del feto (WHAT KIND OF STIMULATION? UTERINE? MENTAL?) (THE CONSENSUS ON THIS PORTION WAS TO ELIMINATE IT.)	- Aceptación del embarazo (????)	- Estimulación temprana al feto - Relajación y descanso (YES: MOTHER SHOULD REST AND RELAX. AND WE MIGHT EVEN THINK OF TRYING TO TEACH MOTHERS SOME SIMPLE RELAXATION TECHNIQUE [8 DEEP BREATHS W/ EYES CLOSED, QUIETLY SEATED. OTHERWISE, WE'RE JUST TELLING WOMEN WHO ARE ALREADY OFTEN PRETTY STRESSED TO "JUST RELAX." NOT VERY HELPFUL.)

TEMA: ALIMENTACION MATERNA

POBLACION OBJETIVO: Embarazada

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Que no debe disminuir ingesta de alimentos aunque tenga vomitos y nausea durante el primer trimestre (HOW??) - De su alimentación adecuada depende crecimiento de feto y salud de la madre - Características de la alimentación en relación a calidad y cantidad (MUST BE MORE SPECIFIC IN WHAT PRECISELY THIS MEANS. ex. 2 EXTRA MEALS PER DAY WITH .....)	- Importancia alimentacion adecuada en relacion a la sobrevivencia del nino y salud de la madre (AS EVIDENCED BY EATING EXTRA EVERY DAY)	- Durante el primer trimestre: comer por poquitos y mas seguido disminuir ingesta de liquidos - Durante 2o. y 3er. trimestre: ingerir mas alimentos que de costumbre - Alimentacion variada y adecuada en cantidad y y calidad (AGAIN, NEED DETAIL) - En algunos casos, necesario disminuir sal.

(BROAD COMMENTS: IRON, VITAMINS, CONCEPTS OF FOOD TABOOS, REST, SMOKING, ALCOHOL, SUBSTANCE ABUSE, MEDICINE USE????)

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TEMA: MONITOREO DE DESARROLLO

POBLACION OBJETIVO: Lactante

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Lactancia aumenta vinculo madre/niño	- Aceptación de la lactancia	- Estimulación temprana durante la lactancia
(COMMENT: THIS IS MORE USEFULLY SUBSUMED IN THE CONTENT OF THE FOLLOWING PAGE.)		

TEMA: ALIMENTACION INFANTIL

POBLACION OBJETIVO: Madres de niños menores de 2 anos

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Importancia del apego (GOOD, BUT PLEASE DESCRIBE "BONDING")	- Reconozca importancia de la relacion entre alimentacion/salud/crecimiento	- Apego desde que nace el niño
- Importancia del calostro (BE MORE PRECISE: STATE THAT COLOSTRUM FROM BIRTH PROVIDES IMMUNE PROTECTION, BETTER GROWTH)		- Dar calostro
- Importancia de la LM (ventajas)		- Lactancia exclusiva (hasta por lo menos 4-6 meses, mientras que el niño sano mantiene su crecimiento adecuado (DEFINE GROWTH FALTERING)
- Complementación de LM (NOT BEFORE 4 MONTHS. BE PRECISE ON WHAT AND WHEN) (NOTE THAT, IDEALLY, THIS SHOULD BE DETERMINED BY GROWTH CHART: BROWN OBSERVES THAT IF A CHILD IS DOING FINE, THEN COMPLEMENTATION CAN WAIT TILL 6 MONTHS.)		- Introducción oportuna de alimentos semi-sólidos, ricos en calorias (DEFINE: RELATED TO GROWTH FALTERING)
- Alimentación del niño durante los 2 primer años de vida (características fisicas, calidad, cantidad) (TOO VAGUE: NEED TO SPELL THESE OUT!)		- Introducción gradual de otros alimentos para que, al año, como lo mismo que la familia
		- Mantener lactancia hasta que el niño o madre decidan (AT LEAST 12 MOS.)
		- Ofrecer al niño alimentación variada y adecuada en calidad y cantidad (TOO VAGUE: NEED TO DEFINE FREQUENCY, QUANTITY, MEANING OF VARIATION)

BROWN'S COMMENT: NEED TO BUILD IN URBAN/RURAL DIFFERENTIATION, MOST PARTICULARLY IN AREA OF BOTTLE USE. MOTHERS THINK BOTTLES ARE GOOD: YOU MUST TRY TO CONVERT THEM TO CUP AND SPOON.

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TEMA: ALIMENTACION MATERNA

POBLACION OBJETIVO: Lactantes

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Razones por las cuales debe aumentar su ingesta de líquidos y de una alimentación balanceada (MEANING?) (SEE * BELOW) - Relación entre la ingesta materna y características de la leche materna (ELIMINATE: THERE REALLY ISN'T ANY) - Efecto negativo del tabaco, licor, algunos medicamentos y drogas, sobre las características de la leche materna y las consecuencias o efectos en el niño (IS THIS REALLY IMPORTANT? MORE USEFUL TO EMPHASIZE THIS DURING PREGNANCY, ESPECIALLY TO STOP SMOKING AND DRINKING THEM!) *MEANING = REALIZATION THAT BREAST MILK IS STIMULATED BY: 1. INCREASED LIQUID INTAKE 2. INCREASED FOOD INTAKE 3. IMPROVED DIET (MILK, LEGUMES, VEGETABLES, MEAT, AS WELL AS STAPLE) -. CONFIDENCE, RELAXATION, AND FAMILY ENCOURAGEMENT BROWN WOULD ADD THAT: RDA FOR CALORIES (TRANSLATE: NEED FOR FOOD) DURING LACTATION HIGHER THAN NORMAL	- Este consciente de la importancia de la relación entre la alimentación materna y las características de la leche materna - Este consciente del efecto nocivo de las drogas sobre la leche materna (ELIMINATE)	- Aumente su ingesta de líquidos (BY 1 LITER PER DAY) - Aumente la ingesta de alimentos, principalmente los ricos en calorías (AT LEAST 2 EXTRA MEALS) - Ingesta de una alimentación variada (EMPHASIZE "VARIADA") - Evite el consumo de licor, drogas y cigarros (OK) - Que no consuma ningún medicamento sin consultar previamente al médico (OKAY, BUT IS THIS REALLY A PROBLEM?) BROWN WOULD ADD: -"REST"

HARRISON WOULD ADD THE CONCEPT OF "EATING FOR TWO -- BOTH MOTHER AND CHILD -- BOTH DURING LACTATION AND DURING PREGNANCY.

TEMA: MONITOREO DE CRECIMIENTO FISICO

POBLACION OBJETIVO: Madres de niños menores de 2 años

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Velocidad de crecimiento (MEANING? "GROWTH TREND" IS THE TERM) - Crecimiento en límites de un patrón - Desviarse patrón = enfermedad - Al pesar periodicamente detecta problemas - Detecta causa y solución (?? TOO VAGUE) - Niño desnutrido más tiempo, enfermedad más grave (STICK WITH GROWTH)	- Interpretación del instrumento de registro - Interés por conceptos peso, crecimiento y su interrelación (YES: "WANTS GROWTH" "WANTS TO SEE IT BY WEIGHING)"	- Que pese al niño periodicamente (MONTHLY) - Que interprete el peso (I.E., INCREASE IN WEIGHT) - Que pregunte ?por que tiene el peso que tiene, y (YES) - Que hacer? (GIVE PRECISE EXAMPLES OF WHAT TO DO)
KEY MESSAGES ARE: "A GROWING CHILD IS A HEALTHY CHILD" THEREFORE, "NOT GROWING = NOT HEALTHY" "INCREASE IN WEIGHT IS GROWTH"	ISSUES: DOES MOTHER GET CARD? ADDITIONAL CONCEPT: THE "ROADS" TO HEALTH, AND, "THE ROADS TO HEALTH ARE UP"	

(*THIS IS OUT OF ORDER, REALLY. FIRST ISSUE OF CONCERN SHOULD BE "THE PREGNANT MOTHER." THIS SECTION SHOULD FOLLOW, NOT BE AT BEGINNING.)

TEMA: MONITOREO DE DESARROLLO

POBLACION OBJETIVO: Madres de niños menores de 2 anos

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Concepto de "desarrollo" - Patrón de "desarrollo" normal en etapas - Relación desarrollo y crecimiento - Desviarse del patrón significa descapacitancia futura - El niño puede ser "intervenido" - El desarrollo puede ser monitoreado por la madre - Donde recibir atención al requerirlo	- Comprender importancia de estimular al niño, dedicarle tiempo (ROHDE: I FAIL TO SEE THIS AS AN ACTIVITY. WHAT WILL YOU DO FOR "DESARROLLO" WHICH IS NOT NORMAL? I FEAR I'M RATHER IN FAVOR OF ELIMINATING THIS UNLESS MORE SPECIFIC ACTIONS WITH OBJECTIVE RESULTS ARE TO BE EXPECTED. OTHERWISE, JUST SAY: "PLAY WITH YOUR CHILD: LOVE HER FEED HER ENJOY HER") (BROWN: DOES NOT AGREE. FEELS ACCEPTABLE DESARROLLO IS IMPORTANT FOR HEALTH. "FTT" (FAILURE TO THRIVE, GROWTHWISE AND DEVELOPMENTALLY) GO TOGETHER, BOTH NEGATIVELY AND POSITIVELY. BROWN ALSO OBSERVES THAT GROWTH CARD IN PRESENT USE, OF WHICH THERE ARE LARGE NUMBERS, INCLUDES DEVELOPMENTAL MONITORING. IS IT, THEN, TO BE IGNORED?) (HARRISON: THIS IS AN AREA JUST BEGINNING TO BE EXPLORED IN DEVELOPING COUNTRIES. WE HAVE YET TO SEE GROWTH MONITORING AS A TOTAL CONCEPT TO BE IMPLEMENTED EFFECTIVELY IN LARGE AREAS AT REASONABLE COST, AN ISSUE INCAP IS TO PURSUE THROUGH OPERATIONS RESEARCH. BEFORE THIS SET OF CAP BECOMES PART OF A "MOTHER'S CHILD SURVIVAL/CHILD DEVELOPMENT 'BIBLE'," IT SHOULD BE EXPLORED AS A SUBSET OF INCAP'S OPERATIONS RESEARCH EFFORTS. LEAVE OUT OF HERE FOR NOW.)	- Estimulación temprana a traves personas y ambiente: Primer año cada 3 meses variaciones importantes Segundo año cada 6 meses: - Examen periódico de madre a niño - Detectar problema - Buscar ayuda - Aumentar tiempo de contacto con niño de parte madre y familia

* This should follow what is now p. 4.

TEMA: TRO

POBLACION OBJETIVO: Madres de niños menores de 2 años, embarazadas, y lactantes

CONOCIMIENTOS	ACTITUDES	PRACTICAS
1. Cualquier diarrea puede ser peligrosa (GOOD) 2. Causas de la diarrea (MEANING?? IF YOU MEAN CAUSATIVE AGENTS, FORGET IT -- IF DIRTY WATER, DIRTY FOOD, DIRTY HANDS, OKAY) 3. Concepto de la deshidratación a. Que produce la deshidratación (ROHDE ASKS IF ANTHROPOLOGICAL STUDIES AGREE WITH THIS. HARRISON IS NOT CLEAR THAT THEY DO. CONSULT WITH YOUR ANTHROPOLOGIST.) b. Cual es el efecto de la deshidratación c. Como reconocer la deshidratación d. Reconocer signos y síntomas de gravedad 4. Como puede evitarse la deshidratación en el hogar a. Importancia de aumentar la ingesta de líquidos durante la diarrea (YES, BUT WHICH??) b. SRO. Existencia, preparación, administración, efecto, preventiva no curativa (YES, BUT SPECIFY PRECISELY ON TOPICS OF: PREPARACION ADMINISTRACION EFECTO) 5. Como puede tratarse la deshidratación: a. Importancia de aumentar la ingesta de líquidos durante la diarrea (SAME AS 4a) b. SRO: Existencia Preparación Administración Efecto Preventiva no curativa (BE PRECISE WITH ALL OF THESE)	1. Reconocer que la diarrea es peligrosa. 2. Reconocer que una consecuencia de la diarrea es deshidratación, que ésta puede provocar la muerte, pero que puede ser prevenible. 3. Que es importante durante la diarrea la ingesta de líquidos en mayor cantidad y continuar la alimentación. (THESE ARE TWO SEPARATE IDEAS, BOTH GOOD. KEEP THEM SEPARATE TO HIGHLIGHT THEM.) 4. Es importante que, después de la diarrea, se aumente la ingesta de alimentos (YES) 5. Es importante el uso de SRO para evitar y tratar la deshidratacion. 6. Importancia de acudir al servicio de salud cuando presente un signo de deshidratación (WHAT SIGNS? HOW MANY? SPECIFY. BROWN: NEED IDEA OF REPLACEMENT, "PLANTS WITHER," NO URINE?URINE) 7. Reconozca las características protectoras de la leche materna para prevenir la diarrea y evitar la deshidratación (GOOD) (BROWN: NEED "HOT/COLD" THEORY INTEGRATED HERE. TRY TO INTEGRATE CONCEPTS FROM WORK OF ANTHROPOLOGISTS.)	1. Al tener una disposición anormal el niño, debe: a. Administrarle mayor cantidad de líquidos. b. No suspender la lactancia materna c. No suspender la alimentación usual 2. Cuando su niño presente cualquiera de estos signos: a. Tenga una deposición líquida abundante b. Más de tres deposiciones en una hora c. Tenga vómitos d. Presencia de sangre en heces e. Más de 4 deposiciones al día f. Hay estado con diarrea 2 dias, o g. Presente algún signo de deshidratación (WHAT SIGNS? HOW MANY? SPECIFY) Dele SRO. (GOOD) 3. Al primer signo (MEANING????) de deshidratación, lleve a su niño al servicio de salud continuando la administración de suero oral (NEED TO KNOW SIGNS: NEED DEFINITION) 4. Ofrecer al niño con diarrea los alimentos que le gustan y con mayor frecuencia (GOOD) 5. Dar al niño por lo menos una ración adicional de comida al día, durante una semana después de la diarrea. (GOOD!! NICE AND SPECIFIC. YES) 6. Si el niño esta tomando SRO, no darle otros líquidos azucarados. (AFRAID OF OSMOTIC DIARRHEA? SEE NOTE TO 11, NEXT PAGE) 7. Preparar y usar adecuadamente las SRO. (EMPHASIZE "ADECUADAMENTE".) 8. Al niño lactante con diarrea, ofrecerle más frecuentemente el pecho.

TEMA: TRO (Conclusion)

POBLACION OBJETIVO: Madres de niños menores de 2 anos, embarazadas y lactantes

CONOCIMIENTOS	ACTITUDES	PRACTICAS
6. Reconocer cuande debe solicitar ayuda a un servicio de salud (GIVE PRECISE INDICATORS)		
7. El niño que recibe lactancia materna exclusiva se enferma menos de diarrea		
8. Que no debe suspender ni la lactancia ni la alimentación del nino durante la diarrea (SEPARATE THESE CONCEPTS. BOTH ARE CORRECT.)		
(BROWN: NEED CONCEPT OF HOME MIX, WHICH SHOULD INCLUDE IDEAS ABOUT WHAT SUGAR AND SALT DO, AS WELL AS KNOWLEDGE THAT WATER DOES NOT HAVE TO BE BOILED. ALSO, NEED TO KNOW THAT NO MEDICINES ARE NEEDED BEYOND ORS, AND THAT RELACTATION AFTER FASTING IS POSSIBLE IF, FOR SOME REASON, THIS HAS OCCURRED.)		
9. Alimentación del niño durante la diarrea (PLEASE SPECIFY)		
10. Alimentación del niño después de la diarrea (PLEASE SPECIFY)		
11. Saber que al estar administrando las SRO, al niño no debe recibir otros liquidos azucarados (ARE YOU SURE YOU FEEL STRONGLY ON THIS? PERHAPS IT IS A PROBLEM, PERHAPS NOT.)		

TEMA: Prevencion de la Diarrea

POBLACION OBJETIVO: madres de ninos menores de 2 años, embarazada, lactante

CONOCIMIENTOS	ACTITUDES	PRACTICAS
1. Que sepa que la higiene personal y doméstica contribuyen a prevenir las diarreas: a. El agua no potable contiene "microbios" que producen diarrea (DO PEOPLE BELIEVE IN THESE?) b. Una disposición inadecuada (????DEFINE??) de excretas pueden contaminar el agua de consumo o riego c. La disposición inadecuada de basuras y excretas atraen las moscas, las cuales luego contaminan los alimentos d. Las manos son portadoras de patógenos (IS TERM "PATOGENOS" CRUCIAL? MEANING?? I [Rohde] DOUBT IT) e. La falta de uso de calzón o pañal en los niños aumenta la contaminación f. Los animales dentro de la casa pueden contaminar el ambiente a través de sus heces (TRUE? ARE WE SURE?) g. La falta de uso de calzado aumenta la probabilidad de contraer parásitos que pueden ser causal de diarrea (PROOF?) 2. Que la madre sepa que existen medidas preventivas que pueden evitar la diarrea: a. Hervir el agua, usar filtros y mantenerla tapada b. Mantener el agua en recipientes limpios y tapados c. Lavar los utensilios de cocina con agua y jabón d. Lavarse las manos con agua corrida y jabón: antes de preparar los alimentos, después de cambiar al niño, antes y después de manipular al niño, después de usar la letrina, después de tocar basura y animales e. Mantener uñas limpias	Que conozca la importancia de la higiene para prevenir diarreas (AS EVIDENCED BY VISIBLE CONCERN TO DO a, b, etc.; IN "PRACTICAS" COLUMN)	a. Hervir el agua, usar filtros, y mantenerla tapada (FILTROS?) b. Mantener el agua en recipientes limpios y tapados (LIMPIOS Y TAPADOS?) c. Lavar los utensilios de cocina con agua y jabón d. Lavarse las manos con agua corrida y jabón: ante de prepara los alimentos, después de cambiar al niñ antes y después de manipular al niño, después de us la letrina, después de tocar basuras y animales e. Mantener uñas limpias f. Mantener los utensilios tapados g. Mantener comida tapada h. Hacer las necesidades en la letrina o enterrar las heces.

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TEMA: Prevencion de la Diarrea (conclusion)

POBLACION OBJETIVO: Madres de ninos menores de 2 anos, embarazadas, lactantes

CONOCIMIENTOS	ACTITUDES	PRACTICAS
f. Mantener los utensilios tapados (PRACTICAL??)		
g. Mantener comida tapada (PRACTICAL??)		
h. Hacer las necesidades en letrina o enterrar las heces		
i. Uso adecuado de letrinas (HARRISON: PREMISE IS CONCEPT THAT LETRINAS SHOULD 1) EXIST and 2) BE USED, BEFORE YOU CAN USE THEM CORRECTLY. NOT ALWAYS THE CASE)		
j. Enterrar o quemar las basuras. (BURNING AND AIR POLLUTION???)		
k. Mantenerle las manos limpias al niño.		
l. En lugar de usar la pacha para alimentar al niño, usar taza y cucharita. (YES!!! GOOD!!!!)		
m. En caso usar pachas, cuidar que estén limpias (NO BOTTLE!!!!! AVOID BOTTLE FEEDING AT ALL AGES! !!)		
n. Que la madre se limpie el pezón antes de dar a mamar		
o. Que evite que el niño se meta cosas sucias en la boca (HARRISON: LOTS OF LUCK)		

(GENERAL COMMENT BY ALL REVIEWERS: CAN YOU BOIL THESE DOWN TO 4-5 PRACTICAL, BELIEVABLE, DOABLE HYGIENIC IMPACT INSTRUCTIONS TO PREVENT DIARRHEA???? REMEMBER "K I S S !")

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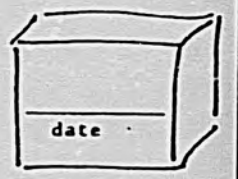
TEMA: PAI

POBLACION OBJETIVO: No especificada

CONOCIMIENTOS	ACTITUDES	PRACTICAS
- Que son las vacunas y para qué sirven (THIS IS A BIG ORDER. TALK TO YOUR ANTHROPOLOGISTS? DO PEOPLE FEAR THESE DISEASES? DO THEY UNDERSTAND PREVENTION? HARRISON: NOT CLEAR AT ALL FROM GUATEMALA RESEARCH THAT THE VACCINE-PREVENTABLE DISEASES ARE UNDERSTOOD AS SUCH NOR, CORRESPONDINGLY, FEARED. POLIO IS A CRIPPLER, NOT A KILLER, IN GUATEMALA. HURTADO FOUND THAT BIGGEST OBSTACLE TO VACCINATION IN GUATEMALA IS IN DELIVERY, NOT CLIENT COMPLIANCE, AT LEAST FOR FIRST DOSES.) - Las enfermedades para las cuales protegen las vacunas dan con frecuencia a los niños pequeños, especialmente cuando no han sido vacunados - Conozcan las vacunas mas usados (??) en los niños y paraque enfermedades protegen - Se conozcan las edades en que se ponen (STARTING AND FINISHING IS ENOUGH) - Conozcan que son necesarias (algunas vacunas) varias dosis para que haya una inmunización completa - Se conozca que el tétano neonatal se previene cuando se vacuna a las embarazadas - Que las enfermedades inmunoprevenibles son una emergencia	- Acepten que las vacunas no son dañinas y son de mucho beneficio para evitar que los niños se enfermen o mueran (CONSENSUS OF REVIEWERS: 1. THIS IS MORE THAN MOTHERS NEED TO KNOW. 2. WHAT MOTHERS REALLY NEED TO KNOW IS THE FOLLOWING: a. 3 SHOTS AND 3 DROPS BEFORE AGE 6 MONTHS b. 1 SHOT AT 9 MONTHS c. VACCINATION CARD SHOULD BE ALL FULLY FILLED OUT d. MOTHER-TO-BE NEEDS VACCINATION 2 TIMES 3. SUGGESTION: PUT A BOX ON CARD WITH LARGE PROMINENT OUTLINE AS FOLLOWS: "TOTALLY IMMUNIZED 4. VACCINATION MUST BE COMPLETED BEFORE 12 MONTHS (BROWN: IMPORTANT CONCEPT: GROWTH CARD IS FOR MOM AND KID "TEAM" ["BINOMIO"])	- Asistan a vacunarse en el servicio de salud y s pongan el número de dósis necesario - Puestos de vacunación - Las embarazadas asistan a control prenatal para que se les administre el toxoide tetánico (BROWN: YES: BIG POINT) 

COMMENTS BY ROY BROWN FOR BOOKLET ACCOMPANYING AUDIO TAPE ON

"LO QUE TODA MAMA DEBE SABER SOBRE LA DIARREA"

by

Licdas. Elena Hurtado and Veronika M. de Palma

General Comments

Concept good, important, and appropriate; needs medical review
Assumption of reviewer is that prime audience is mothers having births in public sector facilities; if so, then:
- Language seems too proper and stilted
- Sentences too long, not "punchy" enough
- Can that audience identify with characters? They seem stereotypic and somewhat unreal.

Word selection: the term "diarrhea" appears only once -- on the cover; not necessarily bad, but are there no mothers who talk about just plain "diarrhea"?

At no time is the mother given the opportunity to ask any questions. The mother doesn't participate, is not asked if she understands or has any questions. Also, she is not asked if anyone with her, e.g., the husband, so he could hear this, too. Most important is that the booklet does not practice what we want to have health educators (particularly doctors) learn -- that they have to interact with their patients -- nor does it give those patients a role model for learning about how to exercise their "rights to ask."
There may be too many messages in the format. The whole document should be reviewed and compared with the Ideal CAP booklet to see if the focus can cluster around a small set of minimal messages that mothers can reasonably do.
Did you pre-test the audio? Are you planning to field test? How?

Specific Comments

This is the first time the child has had diarrhea in 10 months? Is that realistic? (p. 1)
What about single mothers, of whom there are a lot? This presupposes the concerned presence of a real husband. (p. 1)
What about children who aren't "sano y feliz"? (p. 1)
Do pp. 2 and 3 adequately transmit the way we want mothers to think, that is, "number of liquid stools in x number of hours for x number of days"?
Concept of going to comadre first is sound and realistic. Would the next step really be the Emergency Room, or would the mother next try the pharmacy instead of another try at the comadre? Or maybe the Health Post or Center?
p. 5 - If you specify one kind of "agua," would they think some other kind might have worked? How about just saying "una aguita," and letting go at that?
p. 7 - If I were Dona Lipa, would I wonder why the baby needed another kind of "aguita," when I had already been giving him liquid? Would I want to tell the doctor at least that I had? We don't, after all, want to discourage the administration of liquids, because there is probably nothing intrinsically wrong with giving agua de manzanilla or any other agua that is not diuretic or sudorific.
p. 7 seq. Nurse doesn't explain:
- Why dehydration is dangerous to the infant
- What ORS is, why you give it, although explain how to make it
- Don't explain about home mix (recognize this is an issue not yet resolved nationally and that this is an urban context where, theoretically, ORS is available)
- No explanation of why feeding is essential (p. 13)
- No comment about the fact that feeding may increase stool volume but it's OK

p. 10. Will the concept of "onzas" work, or would it be better to tell her some other measure, i.e., x number of cucharadas?
p. 12. Message about continuing breastfeeding should be much more forceful. Also need to say something about ORS not stopping diarrhea, but dehydration.
Good: repetition to comadre
visit to Health Center for lesson on good hygiene.

ORAL REHYDRATION THERAPY UNIT - SUPERVISORY CHECK LIST

This annex was developed by Dr. Jon Rohde after reviewing a questionnaire that had been developed with project support and which was intended to evaluate the degree to which an oral rehydration therapy unit was adequately equipped and supported. This check list should by no means be regarded as a final product. Rather, it represents Dr. Rohde's preliminary thinking on the most important characteristics of a properly functioning ORT Unit.

There are one hundred items on Dr. Rohde's list. For simplicity each has been given equal weighting. Clearly, however, some items are much more important than others and a more sophisticated system of weights should be developed. Similarly, ORT Units are not standarized items and, therefore, depending on the local situation, one might wish to add or delete certain items depending upon local circumstances. Dr. Rohde believes that the check list should be applied by a skilled supervisor and then used as focus of discussion with the ORT unit director.

DRAFT

Jon E. Rohde, M.D.
PRITECH/MSH

12 January 1987

ORAL REHYDRATION THERAPY UNIT - SUPERVISORY CHECK LIST

I. Triage/Reception Areas/General OPD

All cases of diarrhea are sent to the ORT area. ____

No anti-diarrheal or anti-biotic prescriptions given in OPD for diarrhea. ____

No advertisements for infant formula or commercial foods. ____

Total: ____/3

II. ORT Therapy and Education Unit

A. Physical Setting:

Special area is set aside for ORT activities alone. ____

Area equipped with:

- Scale.
- Chairs with arm or other place to rest ORT cup - benches with table, etc. ____
- Cup, spoon, mixing implements for each patient. ____
- Register - registration desk for recording admission. ____
- Toilet for patients. ____
- Washbasin, water, soap for hand washing and patient care. ____
- The area is cleanable - walls, floors - washable and kept clean. ____
- Adequate illumination. ____

Storage area: ORS packets, paper, cups, etc. _____

Total: ___/10

B. Health Education Facilities:

- ORS preparation and demonstration. _____
- Black board or wall board. _____
- Posters on:
  - Breast feeding. _____
  - ORS preparation. _____
  - Signs of dehydration. _____
  - Other. _____
- Brochures for mothers. _____
- Audio-cassettes. _____

Total: ___/8

C. Functions and Procedures:

- Written norms and procedures for diagnosis and therapy. _____
- ORS mixing, demonstration for all mothers. _____
- Mothers administer ORS. _____
- Feeding during rehydration and care in the unit. _____
- Discharge with ORS packets for home use. _____
- Check mothers' knowledge, skills before discharge:
  - Knowledge of home solutions or sugar salt solution. _____
  - Food - feeding - cites specific diet. _____
  - Indications for return to unit - cites 3 signs. _____

- Use of growth chart to determine weight loss during diarrhea and for health education regarding nutrition in diarrhea. ____

Total: ____/9

III. In-patient Care

A. Physical Setting:

- Safe child beds. ____
- Chairs for mother at each bed. ____
- Table for ORS and food at each bed. ____
- I.V suspension, poles, wires, etc. ____
- ORS container and cup or spoon for each child. ____
- Bucket or container for stool, urine, vomit. ____
- Clip board or chart holder for each bed. ____
- Clinical record for each patient; diagnosis, therapy, I & O. ____
- Washable mattress and pillow. ____
- Equipment in unit:
  - Weight scale. ____
  - Intravenous poles, arm board, plaster. ____
  - Scalp vein needles. ____
  - Ringer lactate. ____
  - Thermometers. ____
  - Blood pressure, stethescope, otoscope. ____
  - Tongue depresser, flash light. ____
- Linen, diapers, etc. in adequate supply. ____
- Toilets for patients and attendants. ____
- Laundry and adequate linen supplies. ____
- Hygenic food preparation and preservation by refrigeration. ____

- Adequate disposal of garbage, feces, dirty laundry. _____

- Nursing station desk in full view of all beds. _____

- ?Intubation, resusitation, drugs for CPR, IV glucose? _____

Total: ___/23

B. Functions and Procedures:

- In-patient norms for diagnosis, treatment and treatment of complications posted. _____

- Mothers attend children and administer ORS and feeding. _____

- Input and output recorded by nursing or medical staff. _____

- Admission and four-hourly dehydration assessment. _____

- Non-use of anti-diarrheals. _____

- Selective use of anti-biotics. _____

- Intravenous solutions stopped as early as possible (4 to 6 hours replaced by ORS). _____

Total: ___/7

IV. Laboratory Support:

- HCT, HB, WBC. _____

- Gram stain of stools for pus. _____

- Stool parasite exams. _____

- Urea/creatine/sugar. _____

- Serum specific gravity. _____

- Urine specific gravity. _____

- Electrolytes:

  - Na, K, Cl, CO2. _____

- Bacteriology:

  - Blood culture _____

- Stool: S/S, MacConkey ____
- Virus: Elisa for rotavirus ____

Total: ___/10

V. Supply/Logistics:

- ORS packets or provision, adequate supply. ____
- Intravenous fluids, needles, tubing, plaster. ____
- Naso-gastric tubes. ____
- Antibiotics (selective use). ____
- Requisition clean, prompt, effective. ____

Total: ___/5

VI. Information and Records System:

- Registers OPD, in-patient. ____
- Basic identification and presenting information. ____
- Dehydration - clinical assessment forms for each child - include pre-hospital use of ORT. ____
- Input and output forms - each child. ____
- Monthly summary. ____
- Wall display of monthly admission, treatment and results data. ____
- Targets and goals for unit displayed. ____

Total: ___/7

VII. ORT Unit Staff

A. Medical - Para medical

- Competency training of unit staff. ____
- Pediatric resident on call 24 hours. ____
- Twentyfour hour nursing care on the unit. ____

B. Non-Medical

- Administrative or support staff as needed - (country specific). ____

C. Teaching/Academic (where appropriate).

- Director of unit holds academic post (competitive). ____

- Students required to take full care of at least 10 patients during course in unit. ____

- Research or organised data analysis being conducted in the unit by unit staff. ____

D. Administrative Procedures:

- Budget:

  - Established annually for unit. ____

  - Adequate financial resources available under direction of unit. ____

- Supply procedures clearly spelled out and adequately functioning. ____

- Regular meeting of unit staff to discuss activities and progress at least monthly. ____

E. Supervision:

- Regular supervision by pediatrics, nursing and administration. ____

- Objective record of each supervision visit and supervisory recommendations recorded. ____

F. Continuing Medical Education:

- Regular meeting of staff to discuss operation of unit. ____

- Death conference for all deaths ocurring on the unit. ____

- Availability of diarrheal literature particularly newsletters, etc., for clinical staff. ____

- Training of staff in health education technics and how to deal with mothers. ____

Total: ____/18

VIII. Overall Assessment of Unit:

1) Recommended short term improvements in physical facilities:

2) Health education and involvement of mothers:

3) Staff upgrading and supervision:

4) Administrative and management procedures:

5) Information reporting and evaluation:

6) Other recommendations for unit:

IX. Summary:

		Points of Possible
Triage	_____	3
ORT Therapy and Education Unit:		
Physical Setting	_____	10
Health Education Facilities	_____	8
Functions and Procedures	_____	9
Inpatient Care:		
Physical Setting	_____	23
Functions and Procedures	_____	7
Laboratory Support	_____	10
Supply/Logistics	_____	5
Information and Records System	_____	7
ORT Unit Staff	_____	18
TOTAL:	_____	100

Discussed on _____ date

Supervisor _____

Unit Director _____

DRAFT JOB DESCRIPTIONS

This annex brings together and expands on job descriptions found under Recommendations 5, 6 and 8. The evaluation team identified a need for 3 new senior professionals (two new INCAP employees and one long-term technical assistance person) improve project implementation. Recommendation 5 suggests INCAP should consider employing a Training and Education Coordinator. Recommendation 6 suggests INCAP should consider employing a Project Operations Officer. Recommendation 8 suggests that INCAP and AID/ROCAP should recruit a long-term Senior Management Expert to provide technical expertise in management systems development. It is hoped that the provision of these job descriptions will facilitate the implementation of the recommendations which INCAP and AID/ROCAP eventually accept.

Title: Training and Education Co-ordinator.

Funding: INCAP position to be financed by Project 596-0115 for the remaining life of the Project and by INCAP thereafter.

Purpose: To further develop the coordination and quality of the training and education activities being financed by the Project.

Responsibilities:

1. Undertake, with external short-term technical collaboration, a complete review of the magnitude and quality of all project-financed activities in training and education.

2. Develop a realistic plan for training and education activities for the remainder of the life of the Project with clearly identified objectives, priorities and schedules.

3. Using existing INCAP personnel to the extent possible, supplemented by external technical collaboration for specialized skills and/or INCAP staff training, develop and supervise a training and education team with skills in (1) instructional design emphasizing competency based training, (2) continuing education, (3) distance education, (4) communication and social marketing, (5) materials development, and (6) instructional evaluation.

4. Monitor and supervise the implementation of the above mentioned plan.

5. Report regularly to the Project Operations Team on plan implementation.

6. Develop and maintain relations with the human resources, education and MCH divisions of the 6 ministries of health that are the principal consumers of the products and services being produced by INCAP under the Project.

Qualifications:

1. Masters or, preferably, a Ph.D. in a field related to training, education or mass communications.

2. A minimum of 5 years of technical experience in (1) adult education, (2) competency based training, (3) instructional design, (4) instructional materials development, and (5) education evaluation.

3. A minimum of 2 years of managerial experience with responsibilities for program planning, financial planning and personnel recruitment and supervision.

4. A minimum of 2 years of either the technical or managerial experience should be in the field of public health or primary health care.

5. Native speaker of Spanish, with English fluency, particularly reading, preferred.

Supervisor: Project Coordinator.

Title: Project Operations Officer.

Funding: INCAP position to be financed by Project 596-0115 for the remaining life of the Project.

Purpose: To further develop mechanisms for planning, coordinating, monitoring, reporting and evaluation of project activities.

Responsibilities:

1. Coordinate the work of the Project Operations Team.

2. Develop and distribute timely agenda and minutes of Project Operations Team meetings.

3. Develop formal management and reporting systems to facilitate coordination among all project components.

4. Assist the Project Coordinator to supervise the development, review and monitoring of the Project's annual action plans and the Project's logical framework.

5. Assist the Project Coordinator negotiate any required amendments in the Project Grant Agreement with AID/ROCAP.

6. Supervise the development and implementation of quality control strategies and methodologies.

7. Monitor and assure project compliance with AID contractual and reporting requirements.

8. Supervise project administrative staff including the administrative assistant and accountant specified in the Grant Agreement.

Qualifications:

1. Masters or equivalent in business or public administration or similar field.

2. Two years or more experience directing a large, complex project or business in Central America. Experience implementing a project funded by USAID preferred.

3. Two years or more experience as a senior government official (or as a management consultant to government), in a developing country.

4. Two years or more experience in some field closely related to public health or primary health care.

5. Native speaker of Spanish with English fluency, particularly reading, preferred.

Supervisor: Project Coordinator.

Title: Senior Management Expert.

Funding: Position to be contracted by AID/ROCAP using funds form Project 596-0115 for a minimum of 2 years and preferably for the remaining life of the Project.

Purpose: To provide senior management expertise for the further development of project management systems.

Responsibilities (in collaboration with INCAP counterparts):

1. Organization of the weekly meetings of the Project Operations Team.

2. Design and implementation of an internal, standard monthly reporting system.

3. Organization of the quarterly review and evaluation meetings.

4. Development and follow-up of annual action plans.

5. Elaboration of analytical quarterly reports for AID/ROCAP.

6. Development of monitoring and evaluation instruments for all technical activities carried out by the Project including technical collaboration, technical reporting, training and research.

7. Identification, recruitment and supervision of external short-term technical collaboration required by the Project.

8. Assistance in the further development of INCAP's ability to provide technical assistance to the six target ministries of health in the field of management systems development.

9. Assistance, as may be requested, to the Project Coordinator in the development of any Project Grant Agreement amendments:

Qualifications:

1. Masters or, preferably, a Ph. D. in a management discipline.

2. Five years or more experience in the development and implementation of management systems in developing countries, preferably in Latin America.

3. Two or more years experience as the director of a technical assistance team in a developing country.

4. Two or more years experience in public health or primary health care development in developing countries.

5. Items 2, 3 and 4 should include long-term professional work experience in at least 2 different developing countries with short-term consulting experience in at least 4 others.

6. Native speaker of either Spanish or English while being fluent (FS 3/3) in the other.

Counterparts: Project Coordinator, Project Operations Officer and two Project Technical Coordinators.

Contract Supervisor: Health and Nutrition Office, AID/ROCAP.

ANNEX K

" EXAMPLE OF MEETING MINUTES FORMAT "

UNIDAD DE COORDINACION DEL PROYECTO
522 - 0153
REUNION CELEBRADA EL 18 DE SEPTIEMBRE DE 1986

No.	TEMAS	PROBLEMAS	SOLUCION	RESPONSABLE	REALIZACION SI	NO	PTE.	OBSERVACIONES
1.	Capacitación	Falta Programación de Adiestramiento.	Que esta sea enviada a la Unidad de Coordinación para solicitar Fondos al M.H.-C.P.	Recursos Humanos y Regiones Sanitarias.			X	La Unidad de Coordinación envió programación a la Div. de R.H.
2.	Construcción Almacenes Regiones 2 y 7.	Retraso en la ejecución.	Realización de Adiestramientos a Nivel de la Tesorería General de la República. Que se solicite Dispensa de Licitación Publica.	Recursos Humanos U/C. Asesoría Legal y Oficialía Mayor.	X		X	Se investigará si la acción es inmediata luego de obtener los acuerdos de rescisión de EDINSA.
3.	Informe Auditoría AID.	Falta contestación de parte del Laboratorio Central.	Que la Jefatura de la División de Laboratorio se pronuncie sobre el informe	Laboratorio Central.	X			Se dará una semana para su cumplimiento.
4.	Conformación documento del Proyecto Sector Salud II.	Necesidad de conformar el documento a la mayor brevedad posible.	Que se defina comisión, que elabore calendario de trabajo de acuerdo a perfiles entregados a Planificación.	SUB-SECRETARIA			X	Planificación gestionará las reuniones luego de hablar con la Dirección General.
5.	Programación Medicamentos.	Falta de definición de la Comisión responsable.	Que los responsables la presenten.	Regiones y Hosp.				Al parecer solamente uno de los Hospitales hace falta que presente la Programación.
6.	Entrega Bodega de Medicamentos.	Falta de Equipo.	Agilización de trámites a Nivel de la Proveduría General de la República.	Proveduría y U/C.				Se investigará la posibilidad de solicitarla en carácter de emergencia.
7.	Funcionamiento de Almacén Central, Tegucigalpa.	Falta de capacitación de Recursos Humanos.	Posponer fecha inauguración. Formar comisión para estudio elaborado por Sr. Cisco. Plantear aspecto capacitación.	Dirección Administrativa.	X			La comisión deberá estar integrada por Direc. Ad. Compras, Mantenimiento.

ANNEX L

DRAFT RECOMMENDATIONS DEVELOPED, PRESENTED AND DISCUSSED WITH INCAP AND ROCAP

PROJECT No. 596-0115

Technical Areas

1. Regional Coordination

INCAP should proactively develop and promote its role as a coordinating agency in the field of Child Survival in Central America and Panama.

2. Management Support

In the field of management INCAP should consider giving priority to information systems focussing its efforts on initiatives like sentinel areas and sites and efficiency criteria, while keeping in reserve some funds for management training for which other institutions will be contracted when demand warrants their technical collaboration.

3. Private Sector

INCAP should consider establishing clear priorities in this area including (a) training for private sector pharmacists, doctors, nurses, lab. techs., TBAs, PVO personnel, etc., (b) the organization of an annual subregional workshop to exchange information and experiences related to social marketing of ORS, and (c) contracting with individuals and other institutions to satisfy the demand for technical assistance.

4. Research

INCAP should consider developing an annual plan for further developing its operational research capacity using the implementation of growth promotion as a central theme for OR investigations in Guatemala and other countries, while reserving a limited amount of funds for basic research to supplement existing scientific knowledge, when and if critical gaps are identified, particularly in the area of growth promotion.

5. Training and Education

INCAP should consider employing a Team Coordinator, qualified through training and experience in (1) adult education, (2) competency based training, (3) instructional design, (4) instructional materials development and (5) educational evaluation, to manage project activities in training, education and information dissemination.

Project Management

1. Project Operations Team

INCAP should consider forming a Project Operations Team composed of the Project Coordinator, two Technical Sub-Coordinators and the Project Operations Officer, the latter being a senior experienced project manager to be employed to monitor on a regular basis all aspects of project implementation, including budget control, official communications, component coordination, etc.

2. Communications

The Project Operations Team should consider establishing regular weekly and quarterly meetings, with pre-set agendas and circulated summary minutes, to review project activities, pending actions and implementation constraints, and to review and make adjustments in annual action plans.

3. Technical Collaboration

INCAP and ROCAP should consider contracting an experienced and qualified management advisor to work with the Project Operations Team on the further development of management systems in the areas of planning, reporting, communications and quality control.