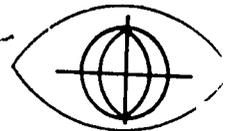


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First
Annual Report
Vitamin A for Child Survival
Tegucigalpa, Honduras

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the
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Annex

I. Changes in Project Design

A. Statement of Country Project Objectives

There have been no changes in the objectives since the Detailed Implementation Plan (DIP) was submitted and the first annual report. However, a formal assessment of the DIP objectives and nutritional strategy is scheduled in February to address MOH requests and issues raised in the DIP review.

B. Location and Size of Priority Population

There have been no changes in the number of communities. The project continues to work with 25 communities in 4 areas of Tegucigalpa. There are minor changes in the number of persons targeted for services based on revised MOH household census data for the San Francisco CeSSAMO area. The previous estimate of the total population (61,654) and number of households (11,306) is revised to 60,948 and 10,158 respectively. The estimated population of the 25 communities is as follows:

Total population	60,948	
annual pregnancies/live births	1,700	
infants 0-11 mos	1,690	
children 12-23 mos	1,683	
children 24-59 mos	4,721	8,094
women 15-49 years	27,601	

See Appendix 1, List of Project Communities.

C. Health Problems Which the Project Addresses

No changes have been made in project focus from the DIP. The project's strategy for improving the nutritional status of infants and children remains three-pronged, consisting of vitamin A supplementation (capsule), nutrition education, and gardening promotion, supported by EPI and ORT promotion. However, in FY 1991/1992, a greater emphasis will be placed on control of diarrheal disease for the following reasons:

- in response to the reported cases of diarrhea in preschool children (16.2%) and the low reported use of ORT (39.6%) found in the project area; the threatening cholera epidemic (the first cases have been reported in Tegucigalpa in October); and responding to requests of the MOH the project will strengthen its efforts in the control of diarrheal disease through monitoring; training in home-based management of diarrhea; and distribution and use of ORT packets.

D. Child Survival Interventions

There have been no changes in the type or scope of child survival interventions this past year. However, due to the following reasons stated in Section C, the project will place greater emphasis on the control of diarrheal disease and ORT.

E. Strategies for Identifying and Providing Service to Individuals at High Risk

There have been no changes in the project's strategy in the identification of households and children at higher risk. The project continues to work through a population-based registration system. All households with children under five years and households with pregnant women are enrolled on a register by community health volunteers (CHV). Each CHV visits each household on a weekly basis. Those children with incomplete immunization or reported episodes of diarrhea or respiratory illness are considered at greatest risk. Growth monitoring is not provided by the CHVs but mothers are encouraged to take their children to the health center for this purpose. All children receive nutrition counselling during CHV visits.

II. Human Resources and Collaboration

A. Project Staff and Organization

Changes in project staff include the addition of an administrative officer, a nurse supervisor, and a part-time ophthalmologist.

Ms. Maria Luz Napky was hired for the full-time position of Office Manager. Ms. Napky has previous experience as a bilingual secretary and office manager. Her duties include general office administration, including accounts, and secretarial services.

Lic. Yolanda Moya Castro, is a professional nurse and was hired for the full-time position of Assistant Project Coordinator. Lic. Castro has previous experience as a practicing nurse and will spend the majority of her time supervising six auxiliary nurses in the field and other duties assigned by the Project Coordinator.

Dra. Doris Matilde Alvarado de Jauregui, was hired for the part-time position of Project Ophthalmologist. Dra. Alvarado de Jauregui is a licensed ophthalmologist in Honduras and will assist the project in the training of CeSSAMO doctors, other professional staff, and auxiliary staff in "primary eye care." Dra. will also be in-charge of an out-patient eye clinic established at the Las Crucitas Health Center.

See Appendix 2 A-C, Job Descriptions and Appendix 3 A-C, Resumes. The revised Organizational Chart is found in Appendix 4.

During the year, Dra. Marylena Arita, a Honduran medical doctor was selected to receive a "IEF Carrigan Fellowship." The Carrigan Fellowship supports a medical doctor during an 18 month training at CeSSIAM in nutritional epidemiology. IEF plans to include Dra. Arita as a full-time employee in future vitamin A projects in Honduras.

B. Technical Assistance Received

During the year the following technical assistance was received:

- Dr. Donald C. Kaminsky, a resident of Honduras and the former Director for Project Hope Honduras, was hired as a consultant to assist staff in the development of the DIP during November, 1990.

- Mr. John Barrows, the IEF-Headquarters Child Survival and Vitamin A Coordinator, made two visits to Honduras to assist in the development of the DIP and for routine management purposes.

- The Center for Sensory Impairment, Aging and Metabolism (CeSSIAM), a research branch of the National Committee for the Blind and Deaf (NCBD) Guatemala, was contracted to complete the second part of the baseline survey (biological indicators). Prior to the survey Dr. Noel Solomons, CeSSIAM Director, made a visit to Honduras to assess requirements to complete a survey, and Lic. Victoria Alvarado, Honduras Vitamin A Project Coordinator, made a reciprocal visit to Guatemala to plan the survey with CeSSIAM staff. A survey team consisting of CeSSIAM, IEF-Honduras, and the Honduras MOH completed the survey in June. Lic. Ingrid Drivera, laboratory technician at the Central Laboratory, MOH, also assisted in the baseline survey.

- Health personnel from the Honduras Ministry of Health assisted project staff during the training of the project auxiliary nurses in February, 1991.

- Ing. Elias Sanchez, an agricultural engineer and assisted project staff in a one week gardening training for Auxiliary Nurses. Mr. Sanchez will continue to assist staff in future gardening training.

C. Describe Community Activities

The community activities undertaken in the past year include:

- The selection and training of six Auxiliary Nurses to work with the project. Selection of the nurses was based on their

educational achievements and their interest in community work. The initial training for the nurses took place during a MOH sponsored training in November, 1990. The purpose of this initial two week program was to insure that the nurses were aware of the MOH child survival policies and procedures established for Tegucigalpa. Considered as part of the training for auxiliary nurses has been the organizing of the communities, the training of the CHVs, and the baseline survey.

The ongoing training of the nurses has included other informal classroom orientations conducted on a weekly and monthly basis to discuss vitamin A/nutrition, the HIS, and adult learning techniques. Other formal training has included a one week course in primary eye care conducted by the Project Ophthalmologist and a two week course in gardening conducted by a horticulture engineer. Additional training will include basic principals of community epidemiology (using numbers, percentages, and graphs) and conducting focus groups.

- Organizational meetings were held in each of the communities with local leaders representing the Patronatos. These meetings were facilitated by the Project Coordinator and the auxiliary nurses as part of their training. Formal meetings were held with 15 of the Patronatos to discuss project activities and support for the project. Unfortunately, in many of the communities there were more than one Patronato which were in conflict over which group should represent the community. Due to time constraints, it was impossible to meet with all of these competing Patronatos. Instead, rather than hold formal meetings, discussions were held informally with the leaders. Regular formal meetings with the Patronatos were scheduled to be held on a quarterly basis. However, this has proved to be difficult. Instead the local leaders are informed of planned events (mini-campaigns, etc,) prior to their occurrence.

- The selection of women to be community health volunteers (CHV) was conducted following guidelines established by the MOH. Selection criteria was based on basic literacy, acceptance of the community and their willingness to work 5 hours a week. One hundred and eighty five CHVs have been identified and trained to date. The initial training of CHVs consisted of a two day orientation to key child survival interventions (ORT, immunization, ARI, nutrition), and the household registration system. This training was conducted by the auxiliary nurses with assistance from the project coordinator and staff (social workers, nurses, and environmental promoters) from the four CeSSAMOs (health centers). All training was conducted in the communities, most often at the community hall or school.

The training of CHVs is ongoing during bi-monthly meetings conducted by the auxiliary nurses. If new CHVs need to be trained, they are first paired with an existing CHVs to accompany them during their normal schedule of household visits. Should there be several CHVs requiring training, the Auxiliary Nurses will arrange for a training in the community. All new CHVs will be included in the ongoing training schedule.

- The project has been working with 15 Womens Groups previously organized by the social workers from the CeSSAMOs. Although these womens groups are organized primarily for home-craft activities, the auxiliary nurses meet regularly with these groups to discuss child survival activities in their areas. These groups are now being involved in the gardening activities.

- The health information system has been initiated in all communities. After considerable discussion with the MOH on the design of the HIS forms, it was decided to adapt the HIS forms the MOH was currently using. The CHVs were trained in how to complete and maintain the registers. The completeness of each CHV's registers were verified by the auxiliary nurses under supervision by the Project Coordinator.

- Household visits by the CHVs and auxiliary nurses are routine. Each CHV visits her households (approximately 30 each) on a weekly basis aided by the household registers. The CHV monitors immunization coverage, vitamin A capsule coverage, recent episodes of diarrhea and respiratory illness, and provides nutrition counselling. The CHV is aided by a set of guidelines that establish a series of "what if.." conditions she should ask each mother concerning her children. Nutrition action messages include child and maternal nutrition. Although a thorough review has not yet been made, few mistakes have been noted in the registers.

The auxiliary nurses make supervisory visits to each of her CHVs on a weekly basis. The auxiliary nurse visits households with the CHV and also makes visits on her own. The auxiliary nurses hold monthly meetings with the CHVs to listen to problems and to conduct "mini-trainings." The experience during the past year has demonstrated that the 6 Auxiliary Nurses are able to supervise 30 CHVs each. This may be due in part to the fact that the HIS is relatively simple and communities are close. The project has also hired an Assistant Coordinator who can spend the majority of her time supervising the Auxiliary Nurses. The Assistant Coordinator also makes visits to households on her own to cover for a nurse who may be ill.

- The first 3 demonstration gardens have been established. These gardens are organized by women's groups and are situated at one of the CHV's houses. The gardens demonstrate the use of small

plots, use of discarded cans and tires turned inside out as "garden pots," pest control, and organic composting techniques. Varieties of seeds are limited to dark green leafy vegetables, tomatoes, green peppers, squash, and sweet potatoes. These demonstration gardens will also serve the purpose as a nursery for fruit trees (papayas, mangoes, citrus) for sale and distribution to the community. Seeds are made available to the community initially at no charge, and later at cost. A limited number of tools will be available (shovels, picks, rakes) for loan. The only special tool that is required is a special knife used to cut tires inside out. The project had hoped that the Patronatos would play a larger role in gardening and other community activities. The Patronato members will continue to be approached for support of the demonstration activities. All technical advice has been provided from Ing. Elias Sanchez and the Zamorano Agriculture College. Project staff have made initial inquiries with the school administration to see if students from the college can assist the project further develop this component.

- Two mini-campaigns were conducted during January, 1990 and July, 1991 in coordination with the MOH for immunization and distribution of vitamin A capsules. The auxiliary nurses are accompanied by the CeSSAMO staff to a central part of the community where a "station" is established. The CHVs provide advance publicity to their households and assist the nurses in gathering mothers and their children. This process is greatly aided by the household registers. It was estimated that over 85% of the eligible children received a vitamin A capsule during the first campaign. Those children who did not receive a capsule are identified on the registers for follow-up by the CHV. The CHV is then provided a plastic film canister with a small quantity of vitamin A capsules for use during her follow-up routine. These campaigns are conducted over a period of seven days.

At the time of the writing of the DIP, the MOH did not have a policy regarding the distribution of vitamin A capsules to mothers within 2 months of delivery. There have been no changes since that time. Project staff will continue to discuss this policy issue with the MOH, but feels that it is prudent not to distribute vitamin A to mothers unless there is a clear directive from the MOH.

D. Linkages to Other Health and Development Activities

New linkages developed during the year include:

- The Johns Hopkins University PVO Child Survival Support Program provided technical and organizational support to the IEF to host the Second Latin American PVO Child Survival Workshop, held in August. The workshop contributed substantially to the knowledge and skills of the project staff.

- The Pan American Agriculture School (Zamarano), is an agriculture college 45 minutes outside of Tegucigalpa. The school has provided information on gardening to the project staff and was the site for the Second Latin American PVO Child Survival Workshop noted above.

- The Task Force Sight and Life, a project of the Hoffman LaRoche, Ltd., has entered a collaborative agreement with the IEF for the support of IEF vitamin A project. Funds will be used to support additional training in Honduras.

- The Central Laboratory of the Ministry of Health is participating with the project in the analysis of the serum retinol samples taken at the baseline survey. The laboratory technician, Lic. Ingrid Drivera will complete this analysis in coordination with the Center for Sensory Impairment, Aging and Metabolism (CeSSIAM) in Guatemala.

- The PVO Coordination Committee, was recently formed in October as a result of the child survival workshop. The purpose of the committee is to share lessons learned and conduct joint activities. It is anticipated that a jointly sponsored two day workshop (possibly on the topic of volunteer incentives) will be conducted in early 1992.

- The Medical Association of Honduras, is a formal association of Honduran physicians. The association has been approached to assist IEF in the sanctioning of the primary eye care training and in other vitamin A project activities.

- The Honduran Federation of Private Development Organizations (FOPRIDEH), is a coordinating agency for private voluntary organizations in Honduras. The Project Director and the Project Coordinator are playing active roles on sub-committees for FOPRIDEH.

The project continues to work closely with other PVO organizations (Project Hope, Save the Children, etc) in the area.

III. Progress in Health Information Data Collection

A. Baseline Survey

i. The baseline survey was conducted in two stages. The first part of the survey was completed in February 1991, and was reported in the DIP. The survey was designed with assistance from IEF-Headquarters and consisted of household and child data (demographic, coverage of EPI and vitamin A, history of diarrhea and respiratory illness, food production, and knowledge data). The survey was conducted over a period of seven days using an EPI cluster-survey methodology. A total of 521 households and 800 children were sampled. IEF Auxiliary Nurses required an average

of 15 minutes to complete an interview. Supervision of the nurses was provided by the Project Coordinator and staff from the CeSSAMOs. The CHVs played a key role in organizing the household visits. Results were initially hand tabulated in Honduras and later entered and analyzed on an EPIINFO database. The cost of the survey including staff salaries, in-country transportation, photocopying, and supplies was estimated to be less than \$ 1,000.

The second part of the survey was conducted from 27th May to 3rd June and consisted of a bio-chemical assessment of serum retinol and conjunctival impression cytology (CIC). The purpose of this part of the survey was to assist the department of nutrition of the MOH in the clarification of outstanding questions regarding the prevalence of vitamin A deficiency in the peri-urban areas of Tegucigalpa. At the time of the writing of the DIP, it was understood that of the 3,000 plasma samples drawn during the national survey, 1987, intended to be assayed for retinol concentrations, may not reveal useful data due to technical problems encountered in storage of the samples. In addition, because the Tegucigalpa sample represented the entire city there were questions concerning whether results accurately reflected the marginal peri-urban areas of the city. For these reasons the project felt that it could assist the MOH by surveying the project areas.

The minimum sample size for this part of the baseline survey was calculated to be 400 children for serum retinol with a sub-sample of 100 children for CIC. However, a sample of 538 children were sampled for serum retinol and 144 children were sampled for CIC.

The costs of this part of the survey, estimated at \$2,170.00, include staff salaries, per diem for Guatemala team, transportation costs (including airfare), photocopying, and basic equipment and supplies. This estimate does not include the costs for completion of the analysis of the serum retinol and CIC. However, the serum retinol samples will be analyzed in Honduras at no charge and the CIC analysis was completed by Dra. Marylena Arita in Guatemala as part of her training at CeSSIAM.

ii. The first part of the baseline survey was designed and organized by IEF-Honduras Project Coordinator with assistance from IEF-Headquarters. The second part of the baseline survey was designed primarily by Dr. Ivan Mendoza, a part-time IEF-Guatemala staff person. During this phase of the survey, a team of CeSSIAM personnel assisted by IEF-Honduras and MOH staff, established "centers" at each of the 4 CeSSAMO areas to which mothers brought their children. All blood drawing was conducted by laboratory technicians and CIC samples were accomplished by Dra. Marylena Arita. The Honduras MOH staff present participated fully in this exercise.

The problems encountered with technical assistance provided by CeSSIAM have been in the analysis of the plasma samples for serum retinol concentrations. The entire set of 538 plasma samples intended for analysis have not been completed. The delay in analysis has been caused by difficulties encountered in establishing an inter-laboratory standardization procedure between the MOH Honduras laboratory and the CeSSIAM laboratory in Guatemala. A sub-sample of the plasmas have been analyzed by a laboratory in San Francisco for this purpose. These results will be used as a reference for the Honduran laboratory which is expected to begin analysis in November.

iii. Findings from the first part of the baseline survey reported in the DIP, were those that were hand-tabulated in Honduras after completion of the survey. The results were later entered into a computer program (EPIINFO) for additional analysis.

Of interest, are the rates for complete immunization in children 12-23 months of age (87.9%). However, on an average only 30.6% of the children received measles between 9-11 months of age. This may be due in part to the MOH's response to the measles outbreak in 1988 and 1989 where measles vaccination was provided at six months of age. The project coordinator has discussed this issue with the MOH who have subsequently advised their health staff.

There were a variety of vitamin A and energy dense foods available in the peri-urban areas. However consumption of these foods varied widely. The typical foods reported available in the household were beans and rice (99.5%), lard or butter (97.8%), eggs (97.2%), seasonal melons (86.9%), bananas (79.7%), pastas (79.3%), milk products (70.3%), carrots (67.5%), green peppers (65.3%), and a meat or fish (56.2%). The typical diet appears to consist of beans and rice, prepared with lard consumed twice a day seven days a week. Although this diet is often supplemented with eggs, plantains, green peppers, carrots and occasionally meat or fish, the actual quantities of these foods consumed are low. Surprisingly mangoes were only available in 56.2% of the households and papaya in 14.9% of the households. This may have been due to seasonal availability and the cost of purchasing these fruits in the market. Although many of the households (51.2%) reported that their children snacked, these foods were usually limited to packaged "junk foods" available in the community. Very few of the children reported consuming dark green leafy vegetables.

Almost all mothers breastfeed their children 0-2 months of age (97.1%). However, mothers also reported high rates of bottlefeeding (48.6%), and providing complementary foods (18.6%) at the same time to these children. Only 38.6% of the mothers

exclusively breastfed their children 0-2 months of age. This information has led staff to reemphasize breastfeeding and to emphasize those vitamin A-rich foods that are both available in households and consumed, in the nutrition education messages.

Although the majority of households did not have a "vegetable garden," more than 25% of the households did have some kind of vegetable plant or fruit tree growing in their backyards. These often were papayas, mangoes, avocado, and chili peppers. The majority of the fruit trees appeared to have been recently planted. This fact may be due to the growing population in these communities as more than 11% of the households reported moving into their communities in the past six months.

Although 43.1% of the children 12-59 months of age were documented as receiving a vitamin A capsule in the past six months few of the mothers (10.2%) reported that they understood the purpose of the capsule. It did appear that households had some knowledge of foods that contained vitamin A.

The results of the survey have assisted staff in the development of the nutrition education messages. Survey results were presented to the MOH and to project staff after the initial results were tabulated, and to the CHVs during their training. The MOH has since adjusted their immunization schedule for measles, and breastfeeding is being reemphasized along with promotion of those vitamin A rich foods most commonly available in households. These results have not been fully communicated back to the Patronatos. A series of focus groups were scheduled to take place during the year to further investigate nutrition behaviors. However, due to the demands on the Project Coordinator's time, these investigations were not undertaken.

The results of the CIC analysis indicated that there are children deficient in vitamin A. Of the 144 children sampled, 13% were abnormal. Although these results are below the standard cutoff criteria (15%) indicating a problem of public health significance, the interpretation of these results alone are insufficient to draw firm conclusions. The analysis of plasma for serum retinol concentrations is expected to clarify the extent of vitamin A deficiency in the peri-urban communities. These results together with those from the CIC analysis will guide the project and the MOH on what role, if any, megadose vitamin A capsules will play as a strategy in combating vitamin A deficiency.

iv. See Appendix 5 A-B, Reports on Baseline Field Activities, and Appendix 6, Report of CIC Findings.

B. Routine Data Collection

i. Early in the start-up phase, project staff consulted the MOH regarding an information system. After several meetings, the project decided to adopt the HIS, with some modification, that was already under use by the MOH. This system is based on 1) a register of households with children under five years of age, 2) a register of households with pregnant women, and 3) a monthly morbidity form. Each CHV enrolls up to 30 households assigned to her. These registers track name, age, immunization status, and coverage with vitamin A capsules. Separate forms are used to track reported cases of diarrhea and respiratory illness. Children are considered at risk if they have incomplete immunization; or if they have had a reported episode of diarrhea or respiratory illness. These reports are a cue to the Auxiliary Nurses and CHVs to provide health messages appropriate to the age of the children and to the circumstances of the household. For this purpose a set of guidelines were prepared that present "what if" situations for the CHV to follow. A separate form is used to record births and deaths.

The system at the clinic level to maintain records on the family is based primarily on the vaccination cards. The CeSSAMOs attempt to maintain duplicate records of vaccination cards at the health center, which are updated periodically. Although this system is far from eloquent, few mistakes have been noted in recording dates and tracking households and children. The CHVs also seem to enjoy the process of maintaining the registers. There is a problem, however, in the duplication of forms by the CHV and the health centers. For instance the dates of vaccination are recorded on the vaccination card, on the CHV register and on the CeSSAMO registers unnecessarily. The project staff have asked for a review of the HIS early in 1992. Technical assistance will be requested for this purpose.

ii. The system for reporting information on the activities of CHVs is based on the household registers. Each CHV enrolls 30 households and visits each household weekly. During each visit the CHV discusses with the mother vaccination status and whether her children have been ill in the past week. The CHVs attempt to provide counselling based on the age of the children and the circumstances of the household. The CHVs are visited weekly by the project Auxiliary Nurses to review the registers and discuss the CHVs activities. The nurses often visit households together with the CHVs. The activities of the CHV and nurses are summarized on a supervisory checklist which is submitted to the Assistant Project Coordinator. This information is summarized by nurse and by CHV and submitted to the Project Coordinator for review. See Appendix 7, Health Information System Forms.

iii. The project has not had difficulties tracking indicators for vitamin A capsule and immunization coverage. Good documentation exists to determine coverage rates during surveys and the CHVs appear to have no difficulties maintaining the HIS registers. However, a review of the HIS will be completed in December/January to 1) update the demographic age profile of the population, 2) assess the CHV counselling provided to mothers, and 3) assess the accuracy of reporting on diarrhea and respiratory illness. This review will hopefully reveal weaknesses in the HIS that need attention. Expert technical assistance will be consulted in February, 1992 to make a more thorough review of the HIS.

The indicators that appear to be the most difficult to collect are mother's knowledge of health and health practices. The baseline survey did attempt to assess basic health and nutritional knowledge. The project is also considering a revised mid-term survey in addition to the end-of-project survey. The project did plan on trying to conduct a series of focus groups to continue to investigate nutrition behaviors. However, the Project Coordinator found it difficult to conduct the focus groups without additional staff and technical assistance.

The biochemical indicators have also proven difficult to establish. Although the baseline survey was completed without major difficulties, the analysis of the plasma for serum retinol concentrations has been delayed due to scheduling problems with CeSSIAM in Guatemala.

iv. The service performance and sustainability indicators the project does monitor are:

- # CHV trained and active;
- # visits to HHs by the CHV;
- # households participating;
- # Patronato meetings;
- # meetings of Women's Groups;
- # gardens active;
- # training meetings conducted by the CHVs;
- # supervisory visits made by MOH staff;
- # mini-campaigns conducted with the MOH

v. The household register system enrolls only children under five years of age and pregnant women. The CHVs monitor immunization and vitamin A coverage, and reports of diarrhea and respiratory illness. The CHVs have not been instructed to detect cases of acute paralysis in children below 15 years of age.

vi. The collection of data begins with the CHVs registers. The Auxiliary Nurses on a monthly basis abstract data from the household registers onto a supervisory checklist. These reports

may be produced as a summary report (to review project performance), by geographic area (to report to communities) or by health worker (to provide feedback on performance of the CHV and Auxiliary Nurse). These summary reports are reviewed by the Project Coordinator for completeness and consistency. Because the HIS has been adopted from the MOH, the system is not computerized.

vii. The same referral system (CHV, Nurse, Assistant Coordinator, Project Coordinator) will be used to monitor the quality of data of the HIS on a monthly basis. The consistency and completeness of data are the primary quality checks to spot weaknesses in supervision.

viii. The data from the HIS will be reviewed during the end-of-month meetings held between the Project Coordinator and the nurses. The report summaries will be used to develop monthly schedules for the nurses. Each nurse in turn visits her CHVs individually and in small groups to review the HIS and supervision data.

ix. The approximate proportion of expenditures (country budget) spent on the HIS is 8.0 percent. The primary expenses are staff salaries calculated at 20 percent.

IV. Improvements in Program Quality and Technical Effectiveness

A. Lessons Learned

The lessons learned during the past year include:

- Although not a new lesson, collaboration is essential between the project and the MOH. The project has made great effort to work within the MOH's guidelines and procedures including the assignment of project areas and the design of the HIS. At the same time, a project needs to recognize the limitations of the MOH. Because the communities are densely populated and other PVOs work close by, collaboration and coordination with other PVOs is also essential.

- The technical assistance provided by CeSSIAM and the MOH was useful. However, the project became tied to the schedule of the CeSSIAM laboratory in regards to the analysis of the serum retinol samples.

- Technical meetings, e.g., IVACG meetings, are important opportunities for staff to be involved in. Efforts to identify, budget for, and send staff to future meetings is important.

- Documentation of project activities has been a weakness during the past year. Project staff need to spend more time in report writing, and major meetings between the MOH and other collaborating agencies need to be fully documented.

B. Steps Taken to Strengthen Technical Quality of Health Programming

The steps taken to strengthen the technical quality of health programming include:

- The Project Director and the Project Coordinator attended the XIV International Vitamin A Consultative Group (IVACG) meeting in Guayaquil, Ecuador, from June 18-21, 1991.

- Project staff were involved in the planning, organizing, and facilitation of the Second Latin American and Caribbean PVO Child Survival Workshop, hosted by IEF in Honduras, from August 18-24, 1991.

- The Project Coordinator and Office Manager completed a basic course on micro-computer operations. The course covered basic DOS, Word Perfect, Lotus, and D-Base IV.

- The Project Coordinator made a visit to CeSSIAM in Guatemala City to work with nutritionists in the development of a vitamin A food frequency questionnaire. This questionnaire is being adapted for use in Honduras.

- Although not directly part of the vitamin A project, Dra. Marylena Arita, a Honduran physician was selected to be a "Carrigan Fellow," IEF sponsored training program in collaboration with CeSSIAM in Guatemala City. This fellowship provides training in nutritional epidemiology. Dra. Arita will join IEF-Honduras in late 1992.

V. Work Schedule

A. Problems and Constraints to Implementation

The major problems and constraints to implementation encountered include:

- The project has spent considerable time and effort in coordination with the MOH. The project has worked with the MOH on where the project should work, how it should work with CHVs, and on the HIS. The MOH, however, is limited in its ability to provide services (immunization, ORT), and supervision due to lack of funding and manpower resources. In addition, nearly all of the key MOH staff the project worked with during the year have either been transferred or have been sent on training programs.

- The project was able to work with only 15 Patronatos (less than half). In many communities there are more than one Patronato claiming to represent the community, which results in conflict. The project will continue to work with the 15 Patronatos and any others that are willing to meet with staff.

- The analysis of plasma for concentrations of serum retinol has been delayed due to scheduling problems between the MOH Honduras laboratory and the CeSSIAM laboratory in Guatemala City.

- The incentives provided by PVOs and the MOH to CHVs vary widely. The MOH does not provide any incentives other than training and a waiver of the health center fee if the CHV visits the Health center. Some PVOs provide a variety of small items in addition to training. The MOH claims that all of the CHVs are MOH volunteers, yet there is no clear policies regarding incentives for CHVs. As more groups begin working with CHVs such a policy is needed. Project staff have proposed to jointly sponsor a short workshop with other CS PVOs on CHV incentives.

- The Medical Association of Honduras has by law the right to involve itself in the employment of physicians by PVOs. IEF has been obliged to conduct an open search to fill the position for a Project Ophthalmologist after having completed a search, selected and hired a candidate.

B. Workplan for Critical Activities, 1991/1992

The workplan outlining critical activities to be completed for fiscal year 1991/1992 is attached as Appendix 8.

VI. Changes in Project Expenditure

A. Pipeline Analysis

The pipeline analysis is attached as Appendix 9.

B. Budget Revisions

There are no major budget revisions anticipated.

VII. Sustainability

A. Recurrent Costs

i. The projected costs that the project expects will need to be maintained after A.I.D. Child Survival funding ends are primarily staff salaries, training costs, vehicle operations, office operations, and basic supplies estimated at approximately \$ 4,000 monthly.

ii. The project component that the community will not be able to continue after A.I.D. Child Survival funding ends are those costs related to CHV incentives. The project provides training, supervision, a certificate, and a handbag to the CHVs. Many of the gardening activities might be maintained by the communities because of the monetary incentives involved.

iii. The project component that the government may not be able to absorb by the end of the child survival funding will be the additional manpower required to supervise CHVs. The project will continue to work within the MOH's existing resource constraints. The project will coordinate the mini-campaigns with the MOH's existing schedules. Other staff at the CeSSAMOs (social workers and environmental promoters) can also be utilized more effectively for the purpose of supervision of the CHVs, womens groups, and Patronatos.

B. Strategies for Reducing Sustainability Concerns

i. The project's approach to developing a sustainable health program is to create awareness among Ministries, other PVOs, and the communities on the role that vitamin A plays in health (nutrition, disease). This is achieved primarily through coordination of training, monitoring, and evaluation.

On the government level, the project is working directly with the MOH and other private sector health and development agencies in Tegucigalpa. The project is working within the policies outlined by the MOH for the development of peri-urban child survival services. This policy mandates community development, training of community health volunteers, and child survival interventions integrated within the basic primary health care services available for the peri-urban communities.

The project has worked directly with the MOH in selection of the communities they felt were priority areas. The project has also worked closely with the MOH in the development of the HIS and in the coordination and delivery of services. The project has assigned one or more project nurses to each of the 4 CeSSAMOs who, in turn, coordinate supervision of the CHVs with MOH staff. There have also been joint training activities for nurses and CHVs. The project is currently (November) training CeSSAMO physicians in primary eye care. The project has also established an out-patient eye clinic at the Las Crusitas Health Center.

The project recognizes that coordination with other Ministries needs to be strengthened. Staff will include in their plans other meetings and joint training with the Ministry of Education through community schools, and the Ministry of Social Development to work with womens groups. Other non-governmental, and church-related organizations will be included.

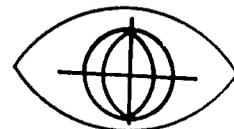
The project is also in regular contact with UNICEF and PAHO to keep abreast of issues that relate to the vitamin A policies in the country. The project has made considerable effort in determining the prevalence of vitamin A deficiency in the peri-urban areas. This information will be useful for the development of the vitamin A nutrition policy for urban communities. Most recently IEF has been actively involved with the Honduran Federation of Private Development Organizations (FOPRIDEH), and a small group of PVOs (Project Hope, Save the Children, World Relief, La Leche League) with centrally funded child survival projects to discuss joint issues. The Lions Club of Tegucigalpa and the Rotary Club (Tegucigalpa Sur) have been encouraged to get involved with the primary eye care component. They will be asked to supply equipment, supplies, and donated professional services. A formal letter of understanding is being pursued by the IEF Project Director.

On the community level, the project works with the Patronatos and those women who have been selected by the communities to be CHVs. The selection of CHVs by the communities helps ensure that their interests are reflected, and that will be supported in their work. Also by working with the 15 womens groups it is hoped that project benefits can be further sustained.

ii. There has been no training undertaken this past year to increase staff's understanding of organizational costs and improve skills in cost-recovery and price setting. However, the IEF-Headquarters Administrator, Mr. Ed Henderson, made a visit to Tegucigalpa to review accounting procedures with staff. A similar visit will be planned in 1992.

C. Cost Recovery Activities

There were no cost recovery activities completed during the year.



LIST OF APPENDICES

Appendix 1:	List of Project Communities
Appendix 2 A-C:	Job Descriptions
Appendix 3:	Resumes
Appendix 4:	Organizational Chart
Appendix 5 A-B:	Reports on Baseline Field Activities
Appendix 6:	Report of CIC Findings
Appendix 7:	Health Information System Forms
Appendix 8:	Workplan
Appendix 9:	Pipeline Analysis

HONDURAS PRIORITY COMMUNITIES

	0-23	24-60	#<5	15-49	#Pop.	#HH's
LAS CRUSITAS						
Jose Angel Ulloa	182	509	691	2,353	5,196	886
Jose Antonia Durarte	50	141	191	652	1,440	240
Jardines de Carrizal	23	64	87	299	660	110
Rafael L. Callejas	49	137	186	636	1,404	234
1 de Diciembre	58	163	221	755	1,668	278
Altos del Paraiso	52	147	199	679	1,500	250
Fuerzas Unidas	40	112	152	516	1,140	190
Cantarero	63	176	239	815	1,800	300
Subtotal	517	1,449	1,966	6,705	14,808	2,468
3 DE MAYO						
Fuerzas Armadas	20	56	76	258	570	95
San Martin	43	119	162	551	1,218	203
Ayestas	298	835	1,133	3,862	8,526	1,421
Campo Cielo	133	373	506	1,726	3,810	635
Independencia	200	561	761	2,595	5,730	955
Subtotal	694	1,944	2,638	8,992	19,854	3,309
ALEMANIA						
Villa Franca	130	366	496	1,690	3,732	622
Villa Cristina	114	320	434	1,481	3,270	545
San Juan Del Norte	39	110	149	508	1,122	187
Subtotal	283	796	1,079	3,679	8,124	1,354

SAN FRANCISCO

La Popular	13	37	50	171	378	63
Altos de San Franciso	60	168	228	777	1,716	286
Israel Norte	68	190	258	878	1,938	323
El Retiro	42	117	159	543	1,200	200
Altos Los Laureles	13	37	50	174	384	64
21 de Febrero	298	835	1,133	3,859	8,520	1,420
La Fatima	43	122	165	565	1,248	208
San Buena Ventura	49	137	186	636	1,404	234
19 de Septiembre	48	134	182	622	1,374	229
<hr/> Subtotal	634	1,777	2,411	8,225	18,162	3,027
TOTAL	2,128	5,966	8,094	27,601	60,948	10,158

JOB DESCRIPTION
OFFICE MANAGER

The Office Manager will report directly to the Project Director and will provide administrative support for the Project Coordinator and the Project Director.

- 1) Provide administrative and secretarial office support to the project staff
- 2) Type and word process general correspondence, documents and respond to telephone requests where appropriate.
- 3) Respond to headquarters office communications and requests where appropriate.
- 4) Assist in maintenance of financial records.
- 5) Backstop project office in the absence of Project Director and Coordinator.
- 6) Order and purchase office materials.
- 7) Provide logistical support for project activities.
- 8) Represent the IEF staff at meetings where appropriate.

JOB DESCRIPTION
AUXILIARY NURSES' SUPERVISOR

The Auxiliary Nurses's Supervisor will report directly to the Project Coordinator, and will be working in the target area of the Project. She will be responsible of the implementation of all the technical aspects of the project, which includes:

1. Supervision of the daily activities of the Auxiliary Nurses.
2. Coordinate with MOH personnel of the CESAMOS the different activities and make sure there exists good communication between the Project, MOH, and the target area.
3. Make and turn in to the Project Coordinator monthly reports, as well as any other information required by the Coordinator.
4. Responsible for the maintenance of the Information System, including follow-up of the Auxiliary Nurses and monthly reports.
5. Assist the Project Coordinator in capacitation of the Auxiliary Nurses, and elaboration of adequate material for it.
6. Conduct, together with the Auxiliary Nurses, capacitation workshops for Health Volunteers, patronatos, and women groups.
7. Any other task assigned to her by the Project Coordinator.

JOB DESCRIPTION
PROJECT OPHTHALMOLOGIST

The Project Ophthalmologist will report directly to the Project Coordinator, and will be responsible for the development and implementation of the primary eye care component of the Project, with duties to include:

1. Responsible for the development and implementation of the primary eye care and prevention of blindness intervention activities to include training, follow-up supervision, and provision of direct services.
2. Establish and Ophthalmologic out-patient Eye Clinic (with supervision and assistance of the IEF Medical Director) in the Las Crucitas Health Center to include basic equipment, supplies, and provide primary and secondary eye care to the project's target population.
3. Develop (with the Supervision of the IEF Medical Director) a primary eye care training module to be conducted for MOH staff (professional and auxiliary), other FVO and NGO staff, and the IEF staff.
4. Provide on-going in-service training for all personnel trained and provide on-going follow-up support for MOH health center staff in the provision of ophthalmic services.
5. Conduct an out-patient eye clinic at the Las Crucitas Health Center on a 2-5 daily basis and perform follow-up visits to the area health centers, as deemed necessary by the Project Ophthalmologist and the IEF Medical Director.
6. Establish a health information system for collection of appropriate service statistics, and collate and provide a summary report to be submitted to the Project Coordinator on a monthly basis, which must include number of patients seen, patients treated, diagnosis, morbidity, and mortality.
7. Interact with appropriate MOH personnel, and GOH officials involved with the project related to the provision of direct health care services.
8. Determine GOH criteria/policy regarding Vitamin "A" deficiency, other infectious eye diseases, and primary eye care, and advise the PD, when appropriate.
9. Perform other IEF/Honduras project related activities as deemed appropriate by the IEF Medical Director and the Project Ophthalmologist.

CURRICULUM VITAE

NAME: MARIA LUZ NAPKY

MARITAL STATUS: Single

OCCUPATION: Executive Bilingual Secretary

EXPERIENCE: 14 years

STUDIES:

1960 - 1969 American School, Tegucigalpa
 1969 - 1972 St. Mary of the Pines Academy, USA

DIPLOMA: High School and Executive Bilingual Secretary

WORKING EXPERIENCE:

May 1973 - June 1975
 Instituto Nacional de Formación Profesional (INFOF)
 (National Institute of Professional Formation)
 - Section of Formation in Business
 - Public Relations Office
 - Administrative Department
 - General Manager's Private Secretary

June 1975 - October 1977
 Banco Atlántida, C.A.
 - Volant Secretary
 - Credit Department
 - General Manager's Private Secretary

July 1980 - October 1980
 Banco Centroamericano de Integración Económica
 (Central American Bank for Economic Integration)

October 1980 - February 1991
 Banco Atlántida, S.A.
 - Operations Department
 - Organization and Methods Division
 - Credit Department

COURSES RECEIVED:

Several courses related with the type of work done (Banking Operations, Basic Course in Accounting, Letters of Credit, Human Relations, Filing, Bank Accounting, Professional Perfectioning of the Secretary)

Word Process Course and in 1991 Computer Course which included: D.O.S., D-Base, Lotus and Wordperfect.

CURRICULUM VITAE

NAME: YOLANDA MOYA CASTRO

LEGAL STATUS: Married

AGE: 34 years old

NATIONALITY: Honduran

ADDRESS: Residencial San Angel, B-26, C-43
Tegucigalpa, D.C.

TELEPHONE:

STUDIES:

Grade School:

Escuela Mixta Esteban Guardiola, La Lima Cortes
1964 - 1970

High School:

Instituto Departamental Patria, La Lima, Cortes
1971 - 1975

Diploma: High School

University:

Infirmary Career, Universidad Nacional Autonoma de Honduras
Tegucigalpa, D.C.
1980 - 1983

Diploma: Bachellor in Infirmary

1985 - 1985

Diploma: Lic. Inf. in Infirmary

Courses Received:

- Respiratory Therapy - 1985
- Efective Supervision and Handling of Personnel - 1988
- Management and Elaboration of Audiovisual Means - 1989

- Management Strategies - 1989
- Control of the Administrative Efforts in the Social Security Institutions

Professional Experience:

- Social Work
Hospital del Sur, Choluteca
Head of Medicine Ward and Men's Surgery
10 months, 1983
- Social Security Hospital
Head of Pediatrics and Labour Ward, Men's Medicine and Pediatric Emergency
1984
- Social Security Hospital
Nurse of Intensive Care Unit
1985 - 1987
- Nurses' Supervisor
Social Security Hospital
1988 - 1989
- Nurses' Supervisor
Hospital Mario Catarino Rivas
1990
- Social Security Hospital
Nurses' Supervisor
1991

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CURRICULUM VITAE

NAME: DORIS MATILDE ALVARADO DE JAUREGUI

MARITAL STATUS: Married

NATIONALITY: Honduran

HOME ADDRESS: Col. Residencial Altos de Las Colinas, Bloque "C"
Casa 3305, Tegucigalpa, D.C.
Telephone: 31-4376

EDUCATION:

Elementary School

Escuela Urbana Mixta 21 de Octubre, Tegucigalpa - 1963-1968

High School

Instituto Sagrado Corazon (Liceo Hondureno), Tegucigalpa - 1969-1974

Diploma Obtained

Elementary School Teacher

University Education

Universidad Nacional Autonoma de Honduras (UNAH), Facultad de Ciencias Medicas, Tegucigalpa

Diploma Obtained

Doctor in Medicine and Surgery

Specialization Studies

Instituto Nacional de Oftalmologia, Lima, Peru

Diploma Obtained

Ophthalmologist

COURSES AND SEMINARS:

* Diabetes Mellitus for the General Doctor I and II Stage, July 28 1984 and July 1985.

* Pediatric Medical Congress, August 1985

* I National Journey of Gastroenterology, Tela, Honduras, 1986.

* II Course of Diagnosis and Treatment of Depressions in the Everyday Clinic. September 1986.

- * Journey on Diabetes Mellitus, Gustavo Napoleon Pineda. Tegucigalpa, October 25, 1986.
- * VIII Interamerican Course on Ophtalmology, celebrated in Bascon Palmer Eye Institute, Miami, Florida, November 17-22, 1986.
- * Basic Course on Ophtalmology "Guillermo Pico Santiago", Puerto Rico January 1 - May 1, 1987.
- * XVI Panamerican Congress on Ophtalmology, course on Pediatric Ophtalmology (2 hrs duration), Dominican Republic, April 5-10, 1987.
- * Course "Ophtalmologic Friday", June 3 - July 22, 1988, Lima, Peru.
- * Course Precongress Chemotherapy of Infectious Diseases. Tegucigalpa, July 9, 1987.
- * XXX National Medical Congress. Infectious Diseases. Tegucigalpa, July 10-11, 1987.
- * XII Peruan Congress on Ophtalmology, II National Congress on Prevention of Blindness, Lima, Peru. October 29 to November 4, 1988.
- * X International Course on Plastic and Reconstructive Surgery of the Orbitopalpebral Region, Universidad Nacional Federico Villarreal, Lima, Peru, March 29-31, 1989 (20 hrs).
- * Theoretical-Practical Course on Ophtalmological Optima, Peruan Society of Ophtalmology, Peru. April 25-29, 1989.
- * Theoretical-Practical Course on Contact Lenses, Peruan Society of Ophtalmology, Peru. May 16-20, 1989.
- * V Basic Course on Ophtalmology, Peruan Society of Ophtalmology, Peru. June 5 to July 21, 1989.
- * II Regional Congress on Ophtalmology, III National Congress on Prevention of Blindness, Peruan Society of Ophtalmology, South Affiliate, Peru, September 30 to October 3, 1989.
- * XI International Course on Pediatric Ophtalmology. Universidad Nacional Federico Villarreal, Peru, March 29-31, 1990.
- * Course on Glaucoma, National University of San Marcos, Peru. June 18 to July 12, 1990 (36 hrs).
- * XIII Peruan Congress on Ophtalmology, Peruan Society of Ophtalmology, Peru, November 25-28, 1990.
- * XII International Course, Recent Advances in Ophtalmology, National University Federico Villarreal, March 21-23, 1991, Lima, Peru.

WORKS PRESENTED:

- * Weill Marchesani Syndrome, author and reporter
Subject presented in the free communications of the XII Peruan Congress on Ophtalmology. Lima, Peru, November 2, 1988.
- * Post traumatic Glaucoma, author and reporter
Subject presented in the free communications of the II Regional Congress of Ophtalmology. Arequipa, October 3, 1989.
- * Treatment of the Back Opaque Capsule, author and reporter
Subject presented in the free communications of the XIII Peruan Congress of Ophtalmology. Lima, Peru, November 28, 1990.
- * Complications of the Cataract Surgery, author
Subject presented in the free communications of the XIII Peruan Congress of Ophtalmology, Lima, Peru, November 28, 1990.

PUBLICATIONS PRESENTED:

- * Fractures of the Femoral Neck, in the Hospital Escuela, Tegucigalpa, from January 1980 to December 1984.
- * Weill Marchesani Syndrome, Magazine of National Instituto of Ophtalmology. Vol. 9, No. 2. Lima, Peru, 1988.

LANGUAGES:

English and Spanish

WORKING EXPERIENCE:

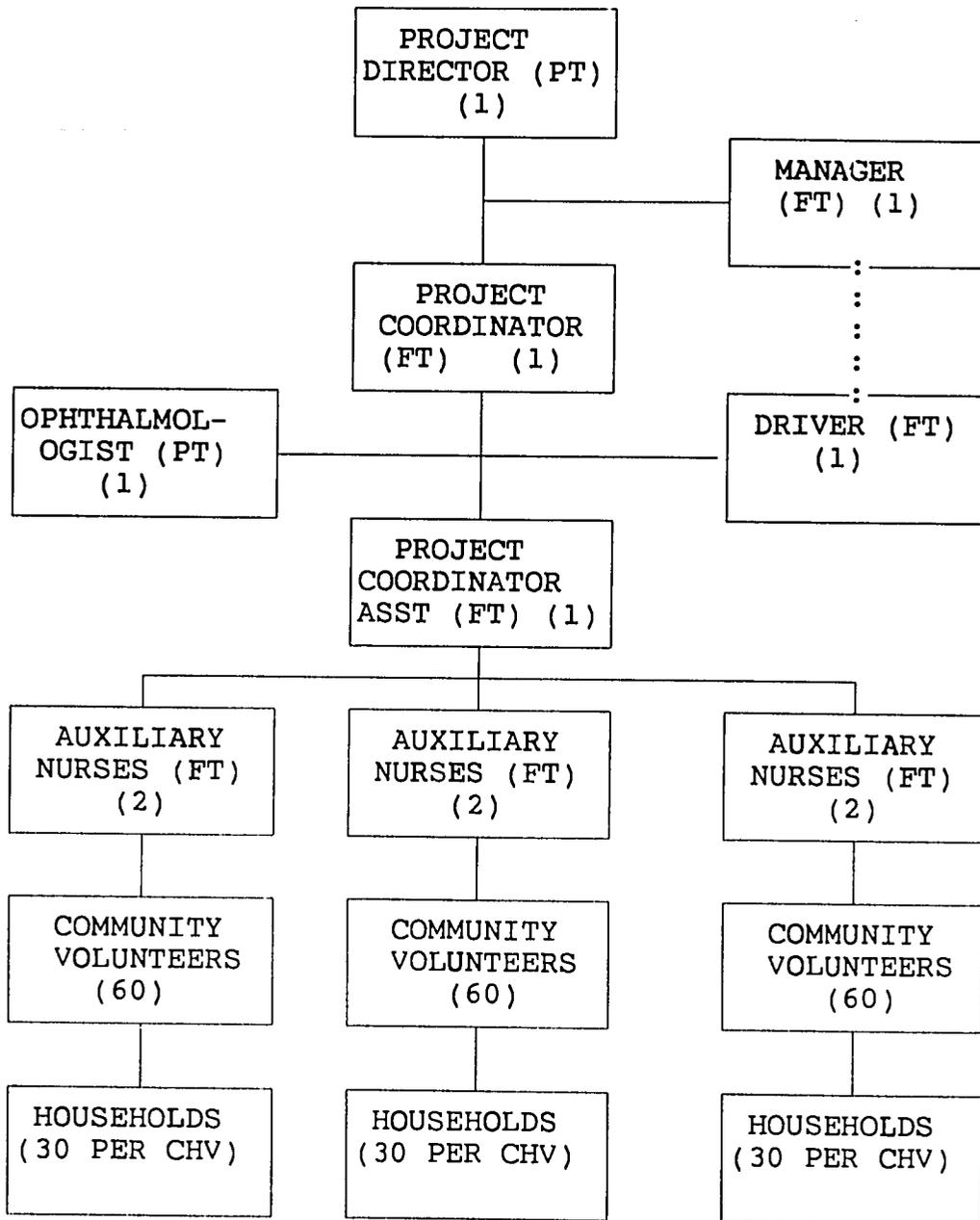
- * Resident Doctor of the Ophtalmological Ward, Hospital General San Felipe, Tegucigalpa. March 1986-February 1988.
- * Ophtalmologist, Hospital General San Felipe, June 1991 to the date.

Tegucigalpa, D.C., July 3, 1991.

DORIS M. ALVARADO DE JAUREGUI

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HONDURAS PROJECT ORGANIZATIONAL CHART



INTERNATIONAL EYE FOUNDATION
CHILD SURVIVAL AND VITAMIN A PROJECT
TEGUCIGALPA, HONDURAS

HONDURAS BASELINE SURVEY- PART ONE
FEBRUARY 17TH THROUGH 28TH, 1991

Prepared by:

Mr. John Barrows
International Eye Foundation
Bethesda, MD 20814

Lic. Victoria Alvarado
Fundacion Internacional del Ojos
Tegucigalpa, Honduras

Introduction

The baseline survey for the International Eye Foundation Vitamin A for Child survival Project in Tegucigalpa, Honduras, was conceived in two parts: Part One was a survey of basic information on household characteristics that included household nutrition behaviors, immunization status, reported illness, knowledge of vitamin A, and gardening. Part Two of the baseline survey was completed with assistance from CeSSIAM in Guatemala City. This part of the survey was completed at a later date and included biological indicators: serum retinol and conjunctival impression cytology. This report represents only Part One of the baseline survey.

The project includes interventions in vitamin A capsule distribution, nutrition education and counseling, and home gardening. The population served by the project are those in 25 communities "colonias" in the peri-urban areas of Tegucigalpa. The total estimated population is 53,926 of which 9,058 (17%) are children under five years of age.

The planning for the baseline survey began in January, 1991. The Honduras Project Coordinator with assistance from the IEF-Headquarters in Bethesda, Maryland, designed the questionnaire and scheduled the survey to be completed 17-28, February, 1991. The survey utilized a rapid assessment methodology.

The survey, including field testing, training of interviewers, and preliminary (hand tabulated) analysis, was completed by IEF-Honduras staff within 2 weeks at an estimated cost of less than \$1,000. (These costs include salaries for Honduran staff, per diem for MOH staff, local transport, paper, and photocopying charges; this estimate excludes those costs associated with travel and accommodations for IEF-Headquarters staff.)

Survey Methodology

Utilizing the survey methodology and criteria developed for the Expanded Program on Immunization (EPI), 30 clusters were selected. To account for differences in population of the communities, the probability of selection was proportional to the size of the community. Therefore, in some communities, two or more clusters were selected while in most, only one cluster was completed. A cluster consisted of all households with children less than five years until the seventh infant (less than 12 months) was recorded. This ensured that at least 210 infants and an approximate number of each one-year age group up to age five years was included in the survey.

Interviews were conducted by the Auxiliary Nurses as part of their training. Two nurses were paired into a team - one nurse to interview the mother and the other nurse to check that the questionnaire was correctly completed. Each team was supervised by either the Project Coordinator or a staff person from the health

center. Community maps from the health centers were used to help determine the boundaries of the communities and aided the survey team in selecting households for interview.

Survey Results

Survey results are summarized on the attached sheet. The communities are growing quickly with 11.7% of the households reported moving into their communities in the past six months.

Of interest is the high rate of complete immunization in children 12-23 months of age (87.9%). However, it was noted that only 30.6% of the children received measles vaccination between 9-11 months of age. This may be due in part to the MOH's response to the measles outbreak in 1988 and 1989 where measles vaccination was provided at six months of age.

A smaller percentage of children 12-59 months of age had received a vitamin A capsule in the past six months (43.1%), and only 4.9% of the mothers reported receiving a vitamin A capsule within two months of delivery.

The episodes of diarrhea reported in the past two weeks was 15.5%. Of these children, mothers reported feeding their children the same amounts of foods (51.6%), and an almost equal number reported feeding their children less (48.4%). It was encouraging to note that a fairly large number of mothers reported using ORT during their children's illness (40%).

The episodes of respiratory illness (coughs) in the past two weeks was 25.9%. A similar percentage of mothers reported feeding these children less often (53.6%), or the same amounts of foods (46.4%). 6.7% of the mothers responded that their children had both diarrhea and a cough in the past two weeks.

Almost all mothers breastfeed their children 0-2 months of age (97.1%). However, mothers also reported high rates of bottle-feeding (48.6%), and provided complementary foods (18.6%) at the same time to these children. Only 38.6% of the mothers exclusively breastfed their children 0-2 months of age. Although, some of these mothers reported to exclusively bottle-feed their infants (2.8%), the actual number of mothers reporting this behavior are far too small to draw any conclusions.

There are a variety of vitamin A rich and energy dense rich foods available in the peri-urban areas. However the availability and consumption of these foods varies widely. The ten most available foods reported in the households are beans and rice (99.5%), lard or butter (97.8%), eggs (97.2%), seasonal melons (86.9%), bananas (79.7%), pastas (79.3%), milk products (70.3%), carrots (67.5%), green peppers (65.3%), and a meat or fish (56.2%).

Of these foods, the typical diet appears to consists of beans and rice, prepared with lard, consumed twice a day, seven days a week.

Although this diet is often supplemented with eggs, plantains, green peppers, carrots, and occasionally meat or fish, the actual quantities of these foods consumed are low. Surprisingly mangoes were only available in 56.2% of the households and papaya in 14.9% of the households. This may have been due to seasonal availability and the cost of purchasing these fruits in the market. Although many of the households (51.2%) reported that their children snacked, these foods were usually limited to packaged "junk foods" available in the community. Very few of the children reported consuming dark green leafy vegetables.

Although the majority of households did not have a "vegetable garden," more than 25% of the households did have some kind of vegetable plant or fruit tree growing around their houses. These often were Patasta (a vegetable that grows on a vine), papayas, mangoes, avocado, and chili peppers. The majority of the fruit trees were young and appeared to have been recently planted.

Although 43.1% of the children 12-59 months of age were documented as receiving a vitamin A capsule in the past six months, few of the mothers (10.2%) reported that they knew the purpose of the capsule. It did appear that households had some knowledge of foods that contained vitamin A. Of the mothers asked to identify which foods contain vitamin A, 34.9% answered correctly, 10.5% answered incorrectly, and 54.6% were uncertain. It appears, however, that the question may have been leading respondents to make a guess at the "correct" answer.

Discussion

The survey reflects only the nutritional characteristics of the 25 communities selected for the project. The rate of immunization coverage is high. However, taking into account the fact that measles vaccination is given on the average at six months of age, the Ministry of Health needs to reconsider their immunization schedule.

The reported cases of diarrhea and respiratory illness are consistent with the results of other surveys conducted in the area. It was encouraging to note that ORT is known by many of the mothers. The survey, however, was not able to verify whether ORT was actually provided to children with diarrhea, or if it was administered properly. The feeding of children who are sick is an important behavior, particularly in regards to vitamin A status. Children need additional food to regain calories and nutrients lost during illness. It is often reported that mothers withhold foods from sick children. In these peri-urban communities it is unclear whether mothers are withholding of foods, or whether children have lost their appetite and refuse to eat. The project should investigate this further using focus groups.

The results on breastfeeding, bottle-feeding, and providing complementary foods to children is also consistent with other investigations. All mothers breastfeed their children, but they

also bottle-feed and give their children other foods early in the weaning process. Mothers are very vulnerable to commercial advertisement encouraging them to feed their children the "modern way." Mothers also make decisions based on convenience and the time they have available for child care. The survey was inadequate to investigate all of the complex attitudes and beliefs surrounding breastfeeding of children. Other reports on breastfeeding in Honduras may help staff design a more comprehensive KAP survey.

The typical diet is limited to basic staples and foods used as condiments. The food frequency questionnaire utilized did not determine the quantity of each food item available. Therefore, the survey cannot determine how many calories and nutrients children actually consumed. However, it is sufficient to conclude that the diets of children are limited to what is available in the household. Almost none of the children were reported to have consumed dark green leafy vegetables. The important vegetable and fruit sources of vitamin A are carrots, green peppers, mango, and papaya; The important animal sources of vitamin A are eggs, milk products, and meat/fish products. It is also interesting to note that snacking is common among children. This may be a behavior that the project can encourage, providing suitable snack foods, like fruits, can be promoted.

A quarter of the population were growing some kind of food item at their household. Even in those communities clinging to steep hillsides, fruit trees and the Patata vegetables were found. Although none of the households had "vegetable gardens" the potential exists to promote a small variety of vegetable plants and fruit trees. Access to water was often limited. However, no community was without some source of water. The project could identify a few of the communities to begin experimentation in urban gardening. A likely motivation might be the additional income generated from this activity.

HONDURAS BASELINE SURVEY SUMMARY
FEBRUARY 18TH - 28TH, 1991

SURVEY VARIABLES	n/N	%
<hr/>		
I. <u>Total Households:</u>	521	
Moved into area in past 6 mos.	60/514	11.7%
No. Infants (0-11 mos)	255	31.88%
No. Children (12-23 mos)	176	22.0%
No. Children (24-35 mos)	171	21.0%
No. Children (36-47 mos)	106	13.25%
No. Children (48-59 mos)	92	11.5%
Total:	800	
II. <u>Coverage Data:</u>		
Health Card	681/800	85.1%
Fully Immunized (12-23 mos)	145/165	87.9%
Age at which measles given:		
< 9 months	69/144	47.9%
9-11 months	44/144	30.6%
> 12 months	31/144	21.5%
Adjusted Immunization Coverage 26.7%	44/165	
Vitamin A to children (12-59 mos) (within past 6 mos)	238/552	43.1%
Vitamin A to mothers of infants (within past 6 mos)	12/246	4.9%
Eye Exam of children (6-59 mos) (within past 6 mos)	28/664	4.2%

III. Morbidity:

Diarrhea (0-59 mos) (reported in past 2 wks)	124/798	15.5%
Mothers reporting feeding children with diarrhea foods:		
more often	0/124	0.0%
less often	60/124	48.4%
same	64/124	51.6%
Mothers reporting use of ORT:	50/125	40.0%
Respiratory illness (0-59 mos) (reported in past 2 wks)	207/799	25.9%
Mothers reporting feeding children with cough foods:		
more often	0/207	0.0%
less often	111/207	53.6%
same	96/207	46.4%
Diarrhea & Respiratory Illness (0-55 mos)	54/798	6.7%

IV. Prevalence of Nutritional Practices:

<u>Breast-feeding</u> of infants (0-2 mos)	68/70	97.1%
Breast-feeding of infants (3-5 mos)	65/79	86.6%
Breast-feeding of infants (6-11 mos)	85/109	78.0%
Breast-feeding of children (12-23 mos)	79/176	44.9%
Breast-feeding of children (24-59 mos)	15/368	4.1%
<u>Bottle-feeding</u> of infants (0-2 mos)	34/70	48.6%
Bottle-feeding of infants (3-5 mos)	46/75	61.3%
Bottle-feeding of infants (6-11 mos)	58/109	53.2%
Bottle-feeding of children (12-23 mos)	86/176	48.9%
Bottlefeeding of children (24-59 mos)	93/368	25.3%

<u>Other foods</u>			
provided infants	(0-2 mos)	13/70	18.6%
	(3-5 mos)	55/75	73.3%
	(6-11 mos)	105/109	96.3%
Other foods			
provided to children	(12-23 mos)	175/176	99.4%
	(24-59 mos)	369/369	100.0%
Exclusively breast-fed	(0-2 mos)	27/70	38.6%
	(3-5 mos)	8/75	10.6%
	(6-11 mos)	4/109	3.7%
Exclusively bottle-fed	(0-2 mos)	2/70	2.8%
	(3-5 mos)	4/75	5.3%
	(6-11 mos)	0/109	0.0%

V. Production of Foods:

Households reporting foods grown	131/514	25.5%
Households reporting DGL-vegetables	1/131	.76%
Households reporting y-vegetables	11/131	8.4%
Households reporting y-fruits	119/131	90.8%
Households reporting other foods (avocado, pataste, citronella, chili)	101/131	77.1%
Households reporting sale of foods	0/131	0.0%

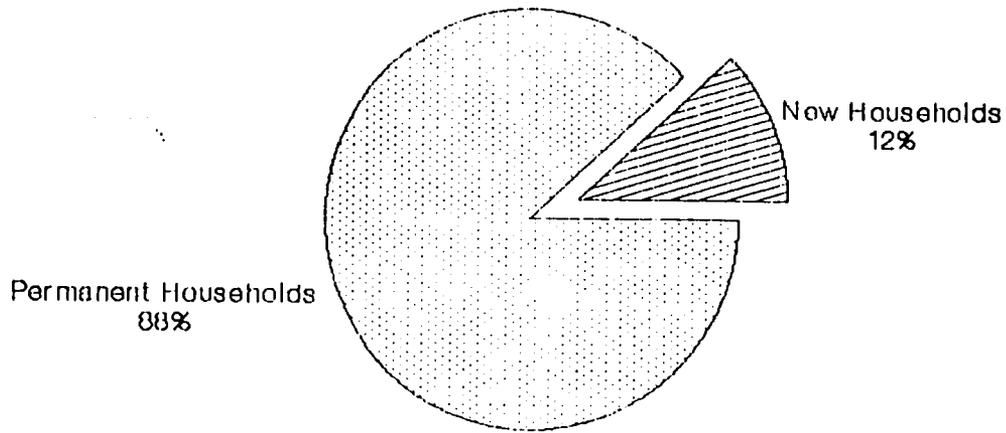
VI. Knowledge of Vitamin A:

Household reporting knowledge of Vitamin A (cap)	53/518	10.2%
for health	28/53	52.8%
for eyes	27/53	50.9%
Households reporting knowledge of foods containing Vitamin A:		
correct responses -	1,449/4149	34.9%
incorrect responses -	434/4149	10.5%
uncertain responses -	2,266/4149	54.6%
Household reporting knowledge of Night Blindness	8/512	1.6%

21

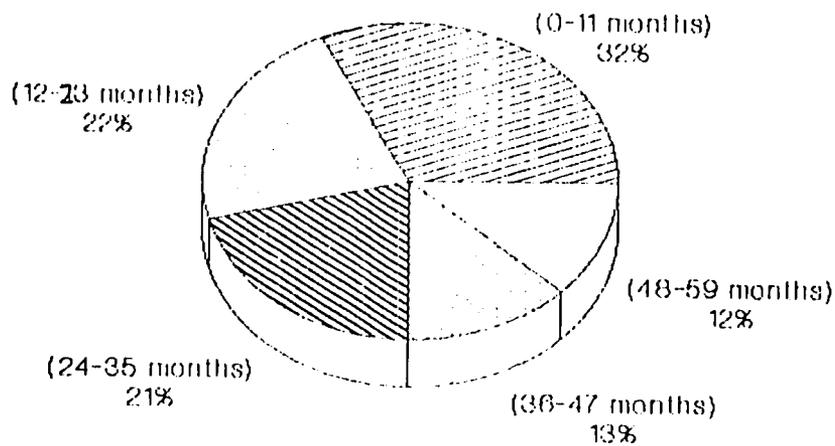
<u>Rank</u>	<u>Foods</u>	<u>% of Families Reporting Availability</u>	<u>Frequency of Consumption (past 7 days)</u>	<u>Mean Times per day consumed</u>
1	Frijoles/arroz (beans/rice)	99.5	6.54	1.99
2	Aceite/mantequilla (lard/butter)	97.8	6.23	2.40
3	Huevos (eggs)	97.2	4.84	1.19
4	Melon (water/cantaloupes)	86.9	3.11	1.03
5	Platanos (bananas)	79.7	4.04	1.05
6	Pastas	79.3	1.86	1.04
7	Leche (milk & products)	70.3	4.33	1.27
8	Zanahoria (carrots)	67.5	2.83	1.02
9	Chile Verde (green peppers)	65.3	4.64	1.04
10.5	Carne/pescado (meat/fish)	56.2	1.99	1.00
10.5	Mango	56.2	2.35	1.00
12	Yuca (cassava)	54.3	1.88	1.00
13	Curros (snacks)	51.2	4.42	1.04
14	Maiz Amarillo (yellow corn)	31.0	5.79	2.71
15	Higado (liver)	28.3	1.40	1.01
16	Papaya	14.9	1.82	1.00
17	Malanga (taro)	7.5	1.59	1.00
18	Mostaza (mustard greens)	6.4	1.47	1.28
19	Hojas de Yuca (cassava leaves)	1.4	1.14	1.00
20	Espinaca (spinach)	.6	1.67	1.00
21	Acelga (greens)	.2	1.67	1.00

Breakdown of Households - 521 Total (Permanent and New to Area)



New means new to area within past 6 mos.

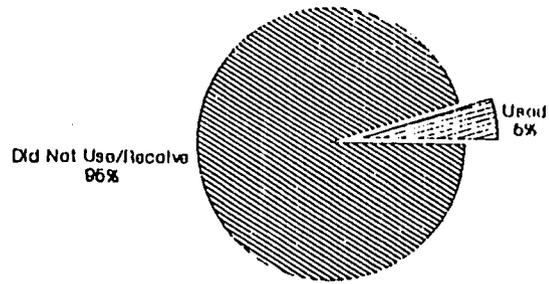
Age Distribution (months)



Total sample - 800 infants and children

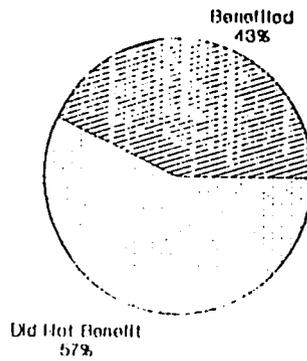
. 41

Vitamin A Capsule Distribution To Mothers of Infants



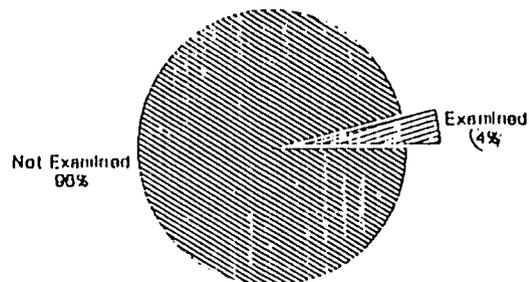
Within past 6 mos.; Sample size - 246

Vitamin A Capsule Distribution (12-59 months)



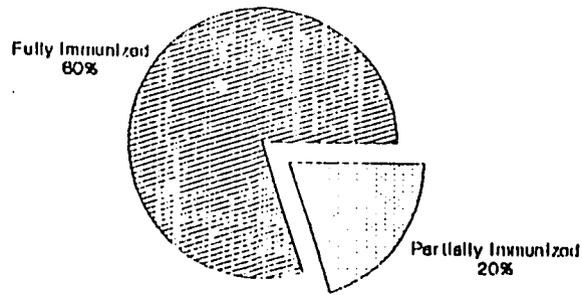
Within past 6 mos.; Sample size 552

Eye Examination (6-59 months)



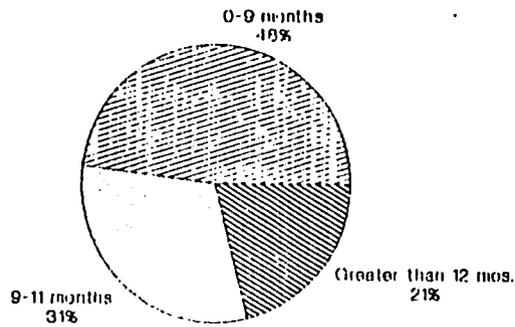
Within past 6 mos.; Sample size 664

Immunization Coverage (12-23 months)



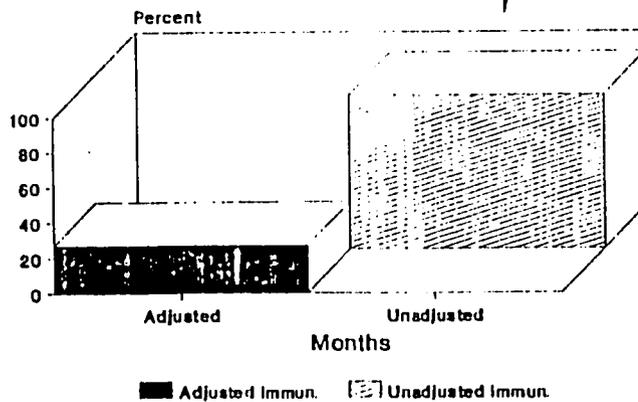
Total Sample - 165

Age of Measles Innoculation



Sample - 144

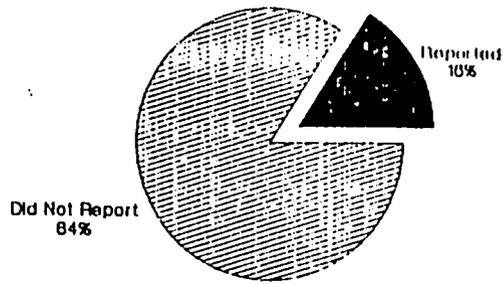
Immunization Coverage Adjusted (12-23 months)



Sample - 165

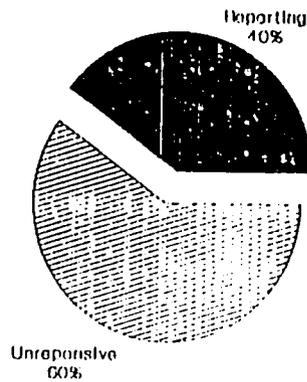
13

Diarrhea Illness Reported In Past Two Weeks (0-59 months)



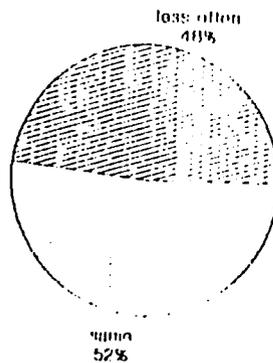
Sample size - 798

Mothers Reporting Use of ORT



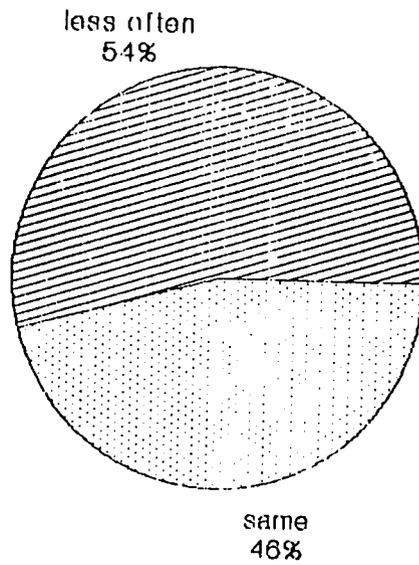
Sample size - 125

Mothers Reporting Feeding Foods To Children With Diarrhea



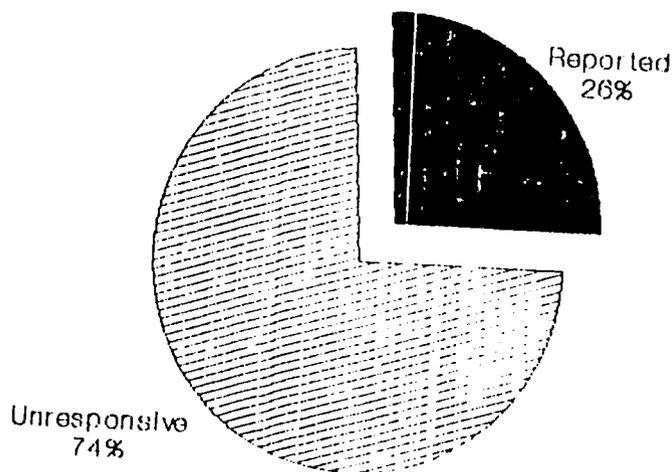
Sample size - 124

Mothers Reporting Feeding Foods To Children With Coughs

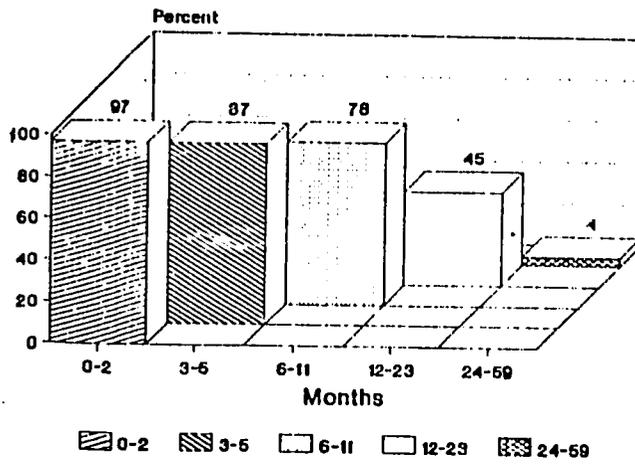


Sample size - 207

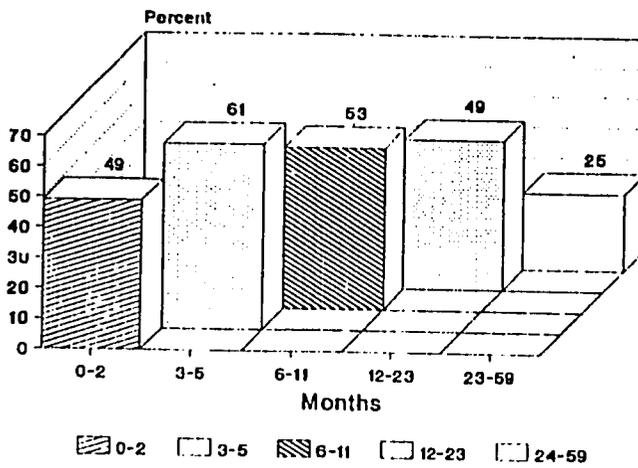
Respiratory Illness Reported In Past Two Weeks (0-59 months)



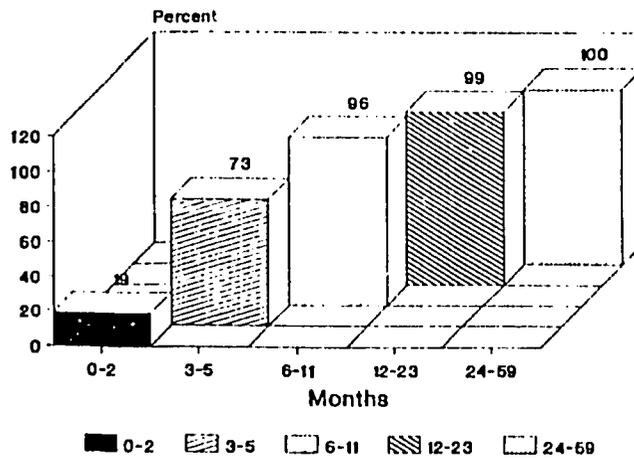
Sample size - 799



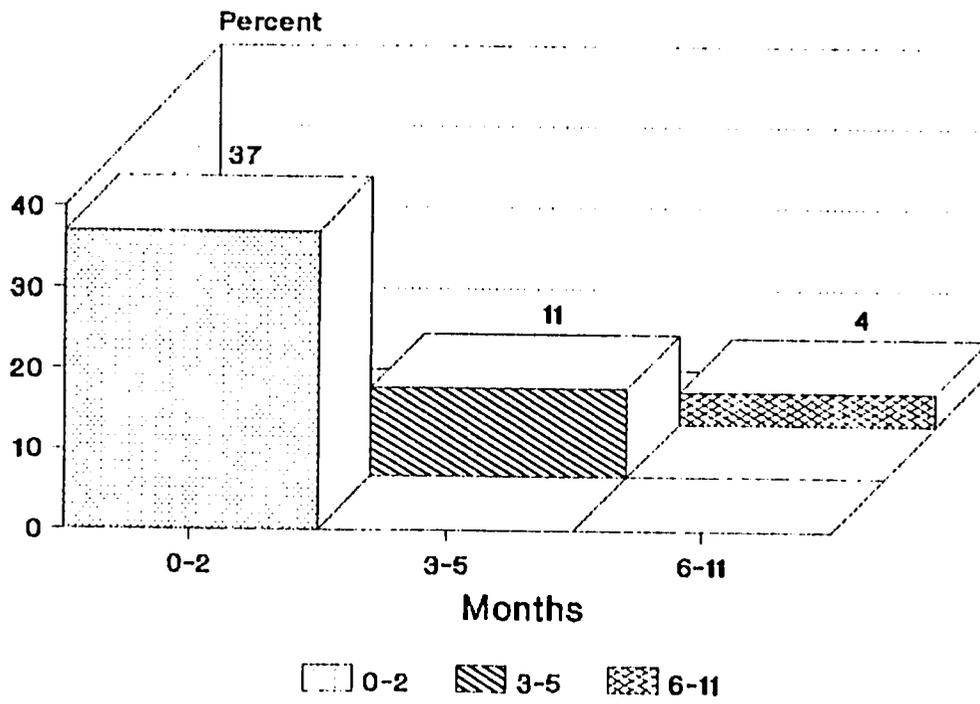
Currently Bottle Feeding By Age



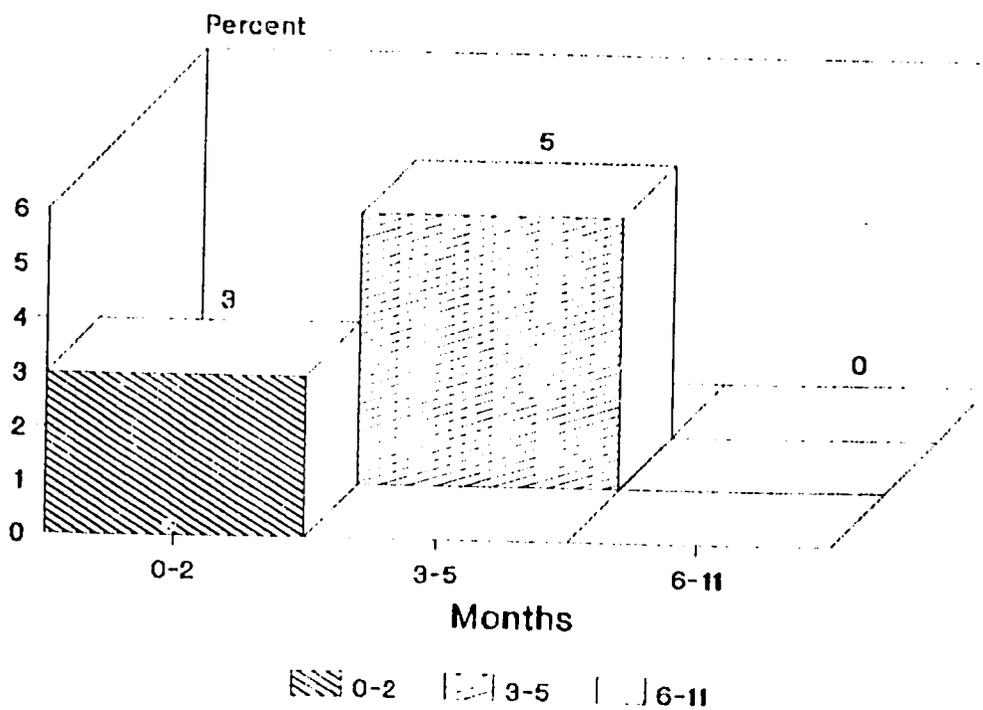
Currently Receiving Other Foods By Age



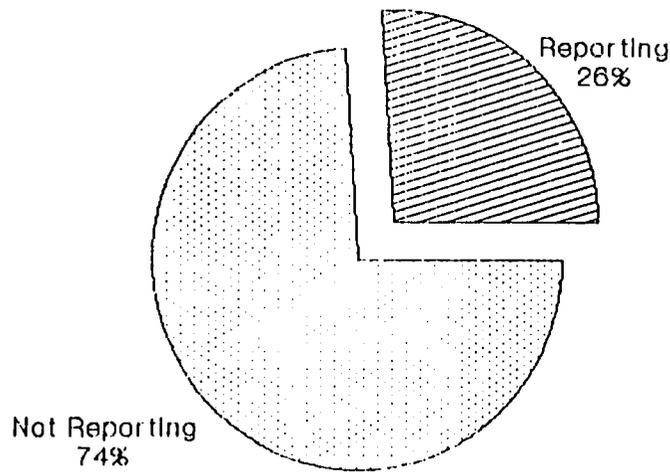
Exclusively Breast-fed By Age



Exclusively Bottle-fed By Age

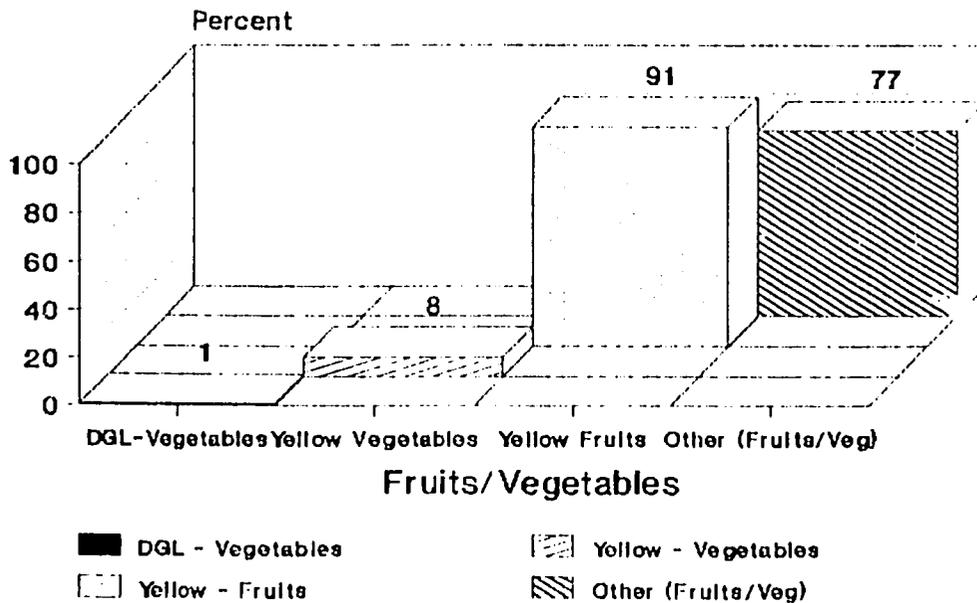


Households Reporting Growing Foods



Sample size - 514

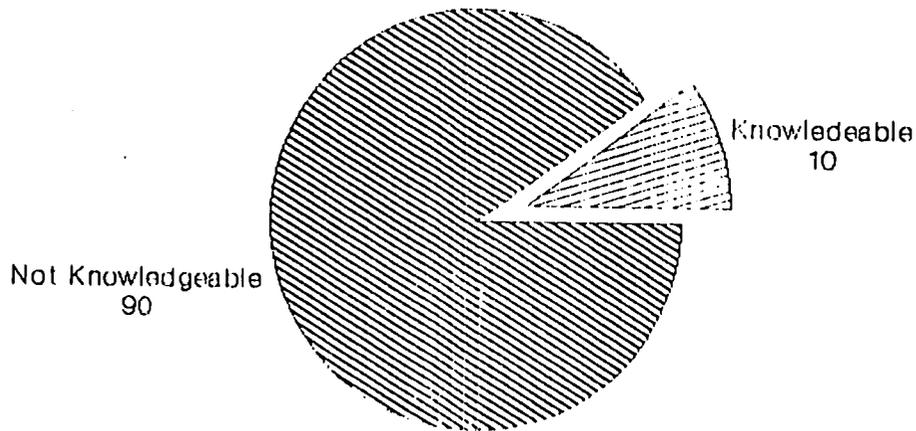
Households Reporting The Growing Of Food By Type Of Food



Sample size - 131

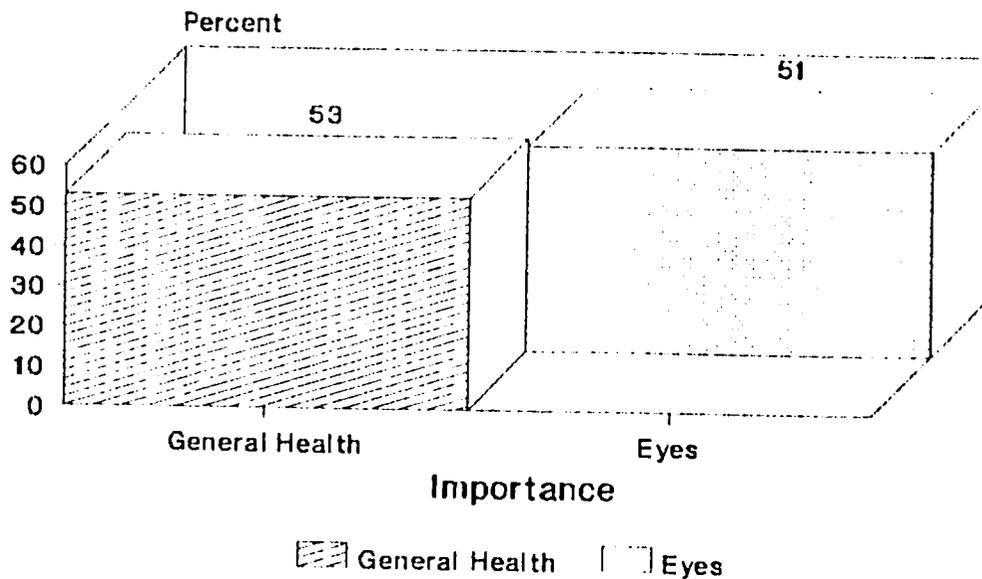
48

Households Reporting Knowledge Of Vitamin A Capsule



Sample size - 518

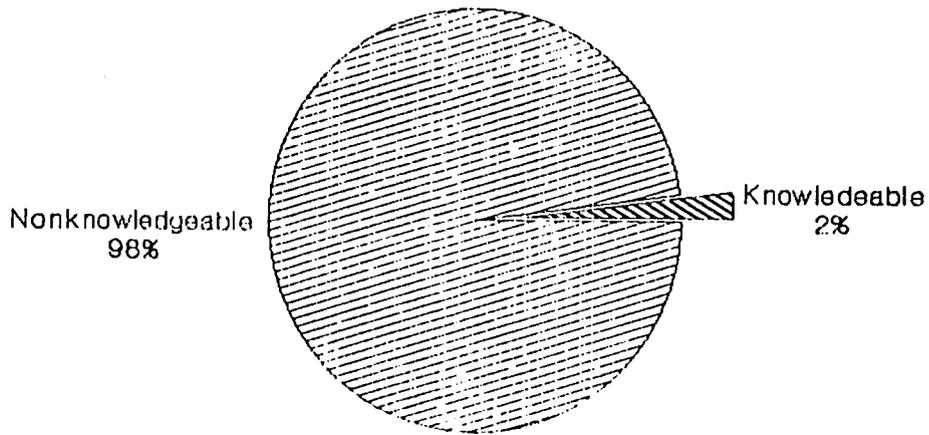
Households Reporting Knowledge Of Vitamin A By Category Of Importance



Sample size - 53

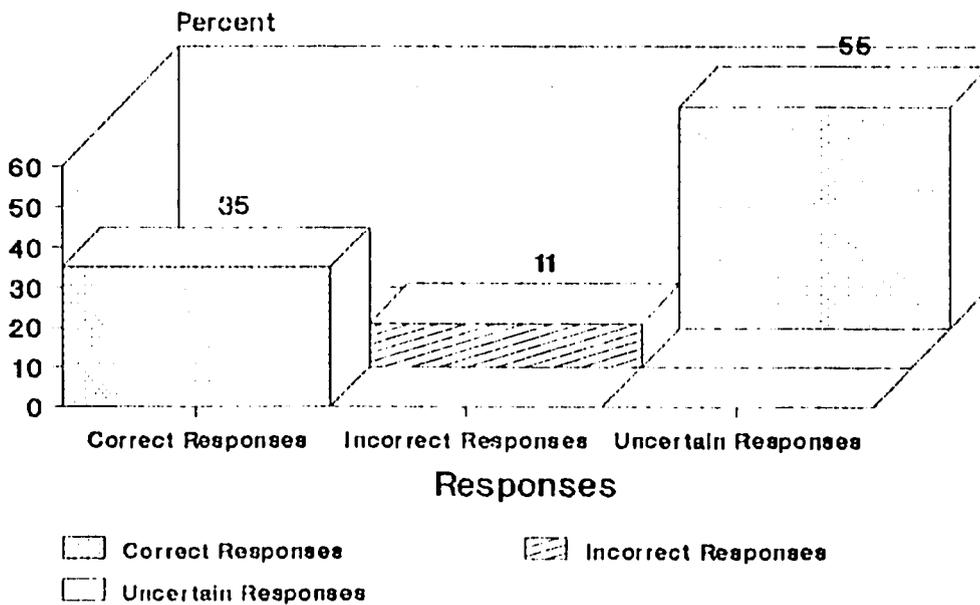
499

Households Reporting Knowledge Of Night Blindness



Sample size - 512

Households Reporting Knowledge Of Foods Containing Vitamin A



Sample size - 4149

HONDURAS BASELINE SURVEY

Date _____ Area # _____ Family name _____ # _____
 Interviewer _____ # _____ Immigrated since 23/Aug/90? Y N

FOR EVERY CHILD UNDER 6, COMPLETE THE QUESTIONS IN THE COLUMN FOR THE CHILD'S AGE (MORE THAN ONE CHILD MAY BE INCLUDED ON ONE FORM)

<u>AGE:</u>	<u>0-5 mos</u>		<u>6-11 mos</u>		<u>12-23 mos</u>		<u>24-71 mos</u>	
<u>BORN:</u>	23/Aug/90- 22/Feb/91		23/Feb/90- 22/Aug/90		23/Feb/89- 22/Feb/90		23/Feb/85- 22/Feb/89	
1) Child Health card?	<u>Si</u> []	<u>No</u> []						
2) Date of birth?	_____		_____		_____		_____	
3) Had DTP3, polio 3, and measles before age 12 mos? (measles date? _____)	<u>Si</u> []		<u>No</u> []		<u>Si</u> []		<u>No</u> []	
4) Did mother receive vitA within two mos of delivery of this child (by history)?	<u>Si</u> []	<u>No</u> []	<u>Si</u> []	<u>No</u> []				
5) Has this child received a dose of vitamin A (documented) since 22/Aug?	<u>Si</u> []		<u>No</u> []		<u>Si</u> []		<u>No</u> []	
6) Has child had his eyes examined by a health worker (by history) since 23/Aug?	<u>Si</u> []		<u>No</u> []		<u>Si</u> []		<u>No</u> []	
7) Has child had diarrhea (define: frequent watery stool) in last 2 weeks?	<u>Si</u> []	<u>No</u> []						
8) Continued feeding child (more +, less -, same =) amount of foods?	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]
9) Did you give remedy such as ORT/SSS?	<u>Si</u> []	<u>No</u> []						
10) Has child had cough (severe, difficulty breathing) in last 2 weeks?	<u>Si</u> []	<u>No</u> []						
11) Continued feeding child (more +, less -, same =) amount of foods?	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]	[+][-][=]
12) Child ever breast fed?	<u>Si</u> []	<u>No</u> []						
13) Is child currently bf?	<u>Si</u> []	<u>No</u> []						

19) Does the household have a kitchen garden (verify) [Si] [No]

20) What foods are grown?

1. DGLV,
2. Y-vegetables,
3. Y-meaty fruits,
4. _____

21) Do you sell any of the foods grown? [Si] [No]

22) Have you heard about vitamin A? [Si] [No]

23) If yes, why is vitamin A important?

1. child health,
2. sight, vision, eyes,
3. DK

24) Which foods contain vitamin A?

- | | | | |
|-------------------------------|------|------|------|
| 1. DGLV like _____ | [Si] | [No] | [Dk] |
| 2. Y-vegetables like _____ | [Si] | [No] | [Dk] |
| 3. Y-meaty fruits like _____ | [Si] | [No] | [Dk] |
| 4. Orange foods like _____ | [Si] | [No] | [Dk] |
| 5. Animal products like _____ | [Si] | [No] | [Dk] |
| 6. Other foods like _____ | [Si] | [No] | [Dk] |
| 7. Bread _____ | [Si] | [No] | [Dk] |

25) Have you heard of "night blindness"? [Si] [No]

TO: Professionals listed below(*)
FROM: Dr. Ivan Mendoza
Lic. Maria Eugenia Romero
Dra. Marylena Arita
IN RE: Honduras baseline

A report of the activities carried out for the initial evaluation (baseline) of the Vitamin A Project of the IEF/Honduras is enclosed.

(*)
Dr. Noel W. Solomons (CESSIAM - Guatemala)
Dr. Gustavo Hernandez-Polanco (IEF-Guatemala)
Lic. Victoria de Alvarado (IEF-Honduras)
Dr. Jesus Bulux (CESSIAM-Guatemala)

COMITE NACIONAL PROCIEGOS Y SORDOS DE GUATEMALA
INTERNATIONAL EYE FOUNDATION

PROJECT:

REPORT ON THE EXECUTION OF THE INITIAL,
BASELINE EVALUATION

SUBMITTED BY:

DR. IVAN MENDOZA
LIC. MARIA EUGENIA ROMERO

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REPORT OF ACTIVITIES REGARDING THE INITIAL EVALUATION OF THE INTERNATIONAL EYE FOUNDATION (IEF) PROJECT OF VITAMIN A. TEGUCIGALPA, HONDURAS, 1991.

A) PLANNING:

Planning the baseline evaluation, specifically those activities related to serum retinol and conjunctival impression cytology (CIC), was performed in Guatemala City, having the participation of Licenciada Victoria de Alvarado (project coordinator), Licenciada Maria Eugenia Romero, Dr. Marylena Arita and Dr. Ivan Mendoza (CeSSIAM professional staff). Issues of discussions were outcome indices, sample size and needs for material and human resources. (See annex 1)

B) EXECUTION:

Execution of baseline was carried out on May 27 to June 3, 1991. On the first day (05/27/91) organization activities were performed: a) Checking lab equipment and materials, b) community site visit, c) staff capacitation on specific issues regarding blood sampling and conjunctival impression cytology procedures. Field activities (blood and CIC sampling) were performed from May 28 to May 31. Issues of samples storage and analysis were discussed on June 3.

B.1) STAFF:

The working staff was integrated with IEF personnel, Ministry of Health personnel, and CeSSIAM staff. Information on participants and their specific tasks during the baseline evaluation are broadly described in annex 2.

B.2) SAMPLE SELECTION:

The 21 target communities of the project are distributed in four groups. The communities of each group are under the jurisdiction of a "CESAMO" (Stands for: Centro de Salud = Health Center). All the target communities are located in the peri-urban area of Tegucigalpa. Group 1: CESAMO "Las Crucitas", which covers eight communities,; Group 2: CESAMO "Tres de Mayo", which includes five communities; Group 3: CESAMO "San Francisco", covers five communities; and Group 4: CESAMO "Alemania", which covers three communities.

In order to select the individuals for blood sampling, a stratified sampling procedure was used, taking a proportional number of subjects in relation to the community population size. Mothers were asked to come to an operative center (described below) where the procedures were performed.

The CIC sampling was done on a randomly selected sub-sample of children aged 2 years or more. This sub-sample number was 25% the size of the sample for retinol determinations.

B.3) OPERATIVE PROCEDURES:

In order to gather the samples to send to the laboratory, operative centers were established in the communities. For groups 1 and 3, it was necessary to establish two operative centers for each group; for groups 2 and 4 it was established only one operative center per group. In each of these operative centers the scheme of organization was as follows: a place for children registration, two or three places for blood drawing procedures, one place for CIC sampling, one place for blood centrifugation and plasma separation and extraction.

B.4) HANDLING AND STORAGE OF SAMPLES:

Once the blood was centrifuged and plasma separated, the plasma samples were conserved in foamy coolers and transported and delivered twice a day to the Central Lab of the MOH, where the samples were stored at -20°C . According to the information given by the chief of the laboratory, these samples will then be stored at -70°C . A duplicate sample of plasma was obtained for those individuals who had a CIC sample, this was done in order to analyze these samples at CeSSIAM lab in Guatemala for determination of retinol levels.

Regarding retinol determination: it was not considered an issue to discuss in this opportunity; however, it is planned by the project that the samples are going to be analyzed at the Central Laboratory of the MOH, under the direction of Licenciada Ingrid de Rivera. Given that the methodology used in this laboratory is quite different from the methodology used at CeSSIAM (Castagnani and Bieri, respectively), the need for an inter-labs standardization was discussed: a set of samples should be analyzed by both laboratories and the results should be compared. If it is to be done, this activity should be under the responsibility of Licenciada M. E. Romero at CeSSIAM and Licenciada Ingrid de Rivera at Honduras. Moreover, Licenciada de Rivera manifested her own interest in this type of inter-lab standardization using the Bieri methodology, given that their laboratory has not actually standardized with any other lab.

A limitation for the Central Laboratory of the MOH is the fact that they do not have a retinol standard; however, some interventions between IEF and CeSSIAM are expected in order to obtain such material.

Regarding the conjunctival impression cytology samples, it was agreed that they will be stained at CeSSIAM, this procedure will be under the responsibility of Dr. Marylena Arita. It will be discussed, in the future, who would be the professionals involved in the interpretation.

ANNEX 1

PLANNING THE BASELINE EVALUATION. IEF PROJECT, HONDURAS.

With the purpose of planning of the activities to be carried out for the baseline of the Honduras Vitamin A Project, the activities performed in Guatemala City on April 29, and 30 and May 1 are described in the following lines. Participants in this phase of the project were Licenciada Victoria de Alvarado (project coordinator, Honduras), Licenciada Maria Eugenia Romero, Dr. Marylena Arita and Dr. Ivan Mendoza (CeSSIAM staff professionals, Guatemala).

SELECTION OF INDICES:

Based on the previous project plans, and aiming to have the best possible diagnosis of vitamin A nutritional status, three indices were included: a) serum retinol b) conjunctival impression cytology (CIC), and c) dietary intake of vitamin A evaluation. The first two indices will be evaluated by May of the current year, while the dietary intake of vitamin A will be performed later given that some methodological issues require more time to be developed.

SAMPLE SIZE ESTIMATION:

In order to reach statistical validity and for planning purposes, a sample size was estimated considering the following procedures and thoughts: a) It was necessary to estimate a sample size for the estimation of a population parameter, defining the parameter to be estimated as the proportion of pre-school children with vitamin A deficiency, based on determination of serum retinol. b) Since there is not current nor previous information on the vitamin A nutritional status of this age group, the maximum variability was used for calculations ($p = .5$; $q = .5$); this figures may be revised if any pertinent information become available; and c) a 5% estimation error was accepted. With the previous considerations in mind, a minimum number of 400 under-5-years-old children was estimated, this sample should be randomly selected from the communities under study. Procedures for selection and sampling design will be performed at the local level, using a rough sketch of sectors and communities.

Regarding the ocular manifestations of vitamin A deficiency, the evaluation will be done by means of the CIC procedure. Since this was not a previously considered indicator and given some operative issues, it was agreed that the best approach would be the evaluation of a sub-sample which would include over two-years-old children. (The approximate size of this sub-sample will be 100 children).

PERSONNEL TO PARTICIPATE IN THE BASELINE:

At this point the project staff has six auxiliary nurses who may support the activities. Additionally, the need to temporarily contract a professional nurse was considered, especially to help with the CIC sampling procedures. Coordination of the team will be under the responsibility of Licenciada Victoria de Alvarado, as the project coordinator. Besides this personnel, the participation of three professionals from CeSSIAM (Guatemala) is expected: Licenciada Maria Eugenia Romero, Dr. Marylena Arita and Dr. Ivan Mendoza. Their support will be focused on technical issues and support to the baseline execution.

TIMING AND ACTIVITIES TO BE PERFORMED:

It was considered that prior to the execution of the baseline activities, it will be necessary to perform a training process directed to the participating team. This capacitation should be focused on technical aspects of the samples drawing, handling and storage. This process should take about three days, up to a maximum of five days. Following this process, the baseline evaluation will be executed by establishment of operative centers in the communities. This phase will have a duration of seven days; however, a security margin of five days has been considered if necessary.

It was established that the dates to perform the baseline activities to be from May 20 to May 31; however, this is to be confirmed by the Project Coordination.

DIETARY ASSESSMENT:

Licenciada Victoria de Alvarado and Licenciada Julieta Quan meet together to discuss the dietary assessment issues, focusing on the methodological aspects. This assessment is not planned to be executed on the above mentioned time.

RESOURCES:

Materials, supplies and equipment needed for the execution of the baseline for serum retinol as well as for conjunctival impression cytology are listed in the accompanying annexes.

Sincerely,

Dr. Ivan Mendoza Perdomo
CESSIAM - GUATEMALA

Guatemala, May 3, 1991

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EQUIPMENT NEEDED FOR BLOOD SAMPLING FOR
DETERMINATION OF PLASMA RETINOL LEVELS BY HPLC

SUPPLIES CALCULATED FOR DRAWING 500 BLOOD SAMPLES

1.- Disposable syringes (5 ml)	700
2.- Needles #21, 1"	700
3.- CryoTubes (screw-top)	700
4.- Pasteur pipettes	700
5.- Pipette bulbs	10
6.- Alcohol	
7.- Cotton	
8.- Cotton-alcohol recipients	3
9.- Masking tape	3
10.- Permanent markers	6
11.- Tracks	10
12.- Black plastic (to protect samples)	
13.- Clinical centrifuge (3000-5000 RPM)	1
14.- Elastic strips (for blood sampling)	5
15.- Vacutainers (with EDTA)	700
16.- Butterflies #22, 1/2"	150
17.- Capillary tubes (microhematocrit)	500

ADDITIONAL:

- 1.- Waste bags
- 2.- Plastic recipients for water storage in case of water lack
- 3.- Candies (for the children)
- 4.- Toilet paper
- 5.- Coolers
- 6.- Dry ice
- 7.- Refrigerator (-20°C)
- 8.- Tables o clinical tables. One for each blood sampling team, and one for the plasma separation equipment)
- 9.- Sheets to cover tables.
- 10.- A coffee dispenser or container.

ANNEX 2

PERSONNEL:

TASK DURING BASELINE

Lic. Victoria de Alvarado (IEF)	Organizing and supervising
Ms. Maria Luz Napky (IEF)	Secretary
Nurses (IEF)	
Maribel Euceda	Operative Centers
Miriam Espinal	Organization
Edith Ortiz	Family dating
Tereza Lanza	Support of sampling procedures
Berta Enriquez	Support of CIC procedures
Mr. Jorge Aleman (IEF)	Driver
Lic. Maria Elena Valladares (MOH)	Samples centrifugation
Lab Tech. Lidia de Aleman (MOH)	Blood sampling
Lab. Technician (MOH)	Blood sampling
Dr. Marylena Arita (CeSSIAM)	CIC sampling
Lic. Maria E. Romero (CeSSIAM)	Organization, supervision
Dr. Ivan Mendoza (CeSSIAM)	and support of sampling.

IEF	International Eye Foundation
MOH	Ministry of Health
CeSSIAM	Center for Studies of Sensory Impairment, Aging and Metabolism.

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ANNEX 3

ESTIMATED AND OBSERVED SAMPLE SIZE, BY COMMUNITY GROUPS
AND SPECIFIC COMMUNITY. TEGUCIGALPA, 1991

GROUP	RETINOL		CIC	
	Estimated	Observed	Estimated	Observed
Las Crucitas	52	168	13	43
3 de Mayo	104	105	26	46
San Francisco	172	172	43	27
Alemania	72	93	18	28
TOTAL	400	538	100	144

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CESAMO: LAS CRUCITAS

COMMUNITY	RETINOL (*)	CIC (*)
JOSE ULLOA	34	11
FUERZAS UNIDAS	43	13
DUARTE	10	1
CANTARERO	19	5
ALTOS DEL PARAISO	22	8
JARDINES DEL CARRIZAL	17	5
1 DE DICIEMBRE	10	--
RAFAEL CALLEJAS	13	--

TOTAL	168	43

(*) Numbers are the corresponding samples per community.

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CESAMO: 3 DE MAYO

COMMUNITY	RETINOL (*)	CIC (*)
CAMPO CIELO	38	16
FUERZAS ARMADAS	7	2
INDEPENDENCIA	29	13
AYESTAS	16	7
SAN MARTIN	15	8

TOTAL	105	46

(*) Numbers are the corresponding samples per community.

CESAMO: SAN FRANCISCO

COMMUNITY	RETINOL (*)	CIC (*)
FATIMA	34	10
19 DE SEPTIEMBRE	68	--
21 DE FEBRERO	34	17
ALTOS DE LOS LAURELES	20	--
ISRAEL	16	--

TOTAL	172	27

(*) Numbers are the corresponding samples per community.

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CESAMO: ALEMANIA

COMMUNITY	RETINOL (*)	CIC (*)
VILLA CRISTINA	52	17
VILLA FRANCA	25	6
SAN JUAN DEL NORTE	16	5

TOTAL	92	28

(*) Numbers are the corresponding samples per community.

ABNORMAL PREVALENCE OF CONJUNCTIVAL IMPRESSION CYTOLOGY (CIC) IN PERI-URBAN AREAS FROM TEGUCIGALPA-HONDURAS-

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Hypovitaminosis A is prevalent in various countries of Latin American, but it is not know whether the children of newly urbanized areas in peri-urban settlements are as vulnerable to vitamin A deficiency as their rural counterparts. The conjunctival impression cytology (CIC), a proposed diagnostic screening method for vitamin A status, was applied in 250 eyes in children aged 8 to 95 months in the peri-urban communities of San Francisco, Las Crucitas, Alemania and Tres de Mayo around Tegucigalpa. A sample of desquamated conjunctival cells were collected on a round disk of filter paper using the suction applicator developed by Dana Center for Preventive Ophthalmology in Baltimore. The Cells were stained with Pas coloration and were contrasted with Harris Hematoxylin, mounted and fixed on a glass slide and interpreted microscopically. Criteria for normal was the presence of more than 5% goblet cells or mucin spots in more than 25%. Slides with none of these characteristic were classified as abnormal. Of the total sample 17 individuals (13%) had abnormal findings. This was 7 (41%) in males and 10 (59%) females. Only 3 children < 24 months were evaluated, none with abnormal CIC. with respect to age the prevalence of abnormality were between 24 to 35 months: 16%, 36-47 months: 16%, 48 months or more: 11%. The prevalence observed are similar to those prevalence in communities without vitamin A endemic deficiency.

NO	Freq	Percent	Cum.
1	69	54.3%	54.3%
1	58	45.7%	100.0%

Total = 127 100.0%

Mean = 185.00
 Standard Deviation = 1.46
 Variance = 0.50

Frequency Distribution

Class	Frequency	Percentage
1	69	54.3%
2	58	45.7%

Relative Frequency

Class	Relative Frequency
1	0.543
2	0.457

66	225	1	1	1	44
67	226	1	1	2	57
68	227	1	1	1	43
69	229	1	2	2	32
70	231	2	2	2	63
71	233	1	1	1	42
72	237	2	2	1	29
73	240	1	1	1	44
74	241	1	1	1	50
75	244	2	2	1	41
76	246	1	1	2	48
77	247	1	1	2	50
78	251	1	1	2	30
79	252	1	2	2	37
80	253	1	1	1	41
81	255	1	1	1	51
82	259	1	1	1	47
83	263	1	1	1	40
84	264	1	1	2	32
85	271	1	1	1	34
86	273	1	1	1	46
87	275	2	2	1	37
88	276	1	1	2	55
89	299	1	1	2	34
90	300	2	1	1	60
91	303	2	2	2	58
92	305	0	0	1	41
93	306	1	1	1	63
94	317	1	1	2	65
95	319	1	1	2	59
96	322	2	2	1	61
97	326	0	2	2	32
98	331	1	1	1	28
99	338	2	1	1	33
100	342	1	1	2	24
101	367	1	1	2	43
102	369	1	1	2	43
103	370	1	1	1	56
104	372	1	1	1	39
105	374	1	1	1	41
106	377	1	1	1	59
107	378	0	2	2	38
108	379	2	2	2	40
109	380	1	1	2	54
110	381	1	1	1	40
111	391	1	1	2	62
112	392	1	1	2	35
113	393	1	1	1	41
114	394	1	1	1	53
115	397	1	1	2	28
116	398	2	2	1	62
117	400	1	1	2	53
118	404	1	1	2	29
119	407	1	1	2	25
120	409	1	1	2	56
121	417	2	2	1	47
122	418	1	1	2	43
123	420	1	1	1	54
124	421	0	2	1	44
125	423	1	1	1	37
126	424	1	1	1	37
127	425	1	1	2	57

ord#	CODIGO	LECTURA	LECTURAJB	SEXO	EDAD
1	33	1	1	1	59
2	39	2	1	1	52
3	41	1	1	1	57
4	42	1	1	2	46
5	48	2	2	2	62
6	49	1	1	2	81
7	53	1	1	1	54
8	56	1	1	1	31
9	60	1	1	1	47
10	61	1	1	2	34
11	62	1	1	2	33
12	67	1	1	2	45
13	70	1	1	1	40
14	72	1	1	1	8
15	82	1	1	2	36
16	88	2	1	2	43
17	89	1	1	2	23
18	91	1	1	1	63
19	96	1	1	1	57
20	98	1	1	1	47
21	100	1	1	1	47
22	104	1	1	1	48
23	105	1	1	2	36
24	111	0	1	1	37
25	113	1	1	2	58
26	114	1	1	2	58
27	118	0	1	1	42
28	120	1	1	2	54
29	121	1	1	2	45
30	123	1	2	2	59
31	127	0	1	1	49
32	134	1	1	1	46
33	147	1	1	2	37
34	148	1	1	2	57
35	149	1	1	1	48
36	152	1	1	2	95
37	153	0	1	1	44
38	158	1	1	2	54
39	160	2	1	2	60
40	161	1	1	2	29
41	163	1	1	2	46
42	165	1	1	1	48
43	168	2	1	1	22
44	173	1	1	2	54
45	176	1	1	2	42
46	177	0	1	1	42
47	178	1	1	1	52
48	182	1	1	1	43
49	184	1	1	1	53
50	187	1	1	1	50
51	193	1	9	1	61
52	194	1	1	1	45
53	195	1	1	1	57
54	196	0	0	1	65
55	197	1	1	2	56
56	200	1	1	1	41
57	203	1	1	1	44
58	205	1	1	1	38
59	206	1	1	2	49
60	207	1	1	1	54
61	209	1	1	1	29
62	214	1	2	2	43
63	217	1	1	1	57

LISTADO DE VACUNACION PARA NIÑOS DE 0-5 AÑOS

Vaccination list for children 0-5 years old

Region _____ AREA (Health Center) _____ UPS _____ FECHA DE ELABORACION Date _____

Barrio _____ Sector _____ Manzana Block _____ Voluntario de Salud Health Volunteer _____

N°	NOMBRE DEL NIÑO Name of Child	NOMBRE MADRE/O REPRESENTANTE Name of Mother/ Guardian	FECHA NACIMIENTO Birthdate	No. CASA House #	SITUACION VACUNAL							OBSERVACIONES Observations	
					FECHA V. ANTIPOLIIO Date of Antipolio Vac.			FECHA DPT Date of DPT			SARAM UNICA Measles		BCG UNICA BCG
					RN	1a	2a	3a	1a	2a			
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

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FUNDACION INTERNACIONAL DE OJOS
 International Eye Foundation
 Proyecto Vitamina A
 Vitamin A Project
 REPORTE MENSUAL DE LA AUXILIAR DE ENFERMERIA
 Report of Auxillary Nurses

Nombre Auxiliar de Enfermería Name of Auxillary Nurse Mes y Año Month and Year

						<i>TOTAL</i>	
Nombre de Vol. Salud	Name of Health Volunteer						
No. de Familias con: - Niños menores de 5 años	Number of Families with Children under 5 years						
- Mujeres Embarazadas	Women Pregnant						
Total de niños menores de 5 años	Total number of children under 5 years						
Total de madres con infantes menores de 2 meses	Total number of mothers with children under 2 months						
No. de niños recibiendo servicios durante visita de seguimiento	Number of children receiving services during follow-up visit						
No. de niños de 6-60 meses que recibieron Vit. A en las Mini-campañas de vacunación	Number of children 6-60 months who received Vitamin A in the Vaccination Mini-Campaigns						
No. de niños de 6-60 meses que recibieron Vit. A por las Voluntarias de Salud	Number of children 6-60 months who received Vitamin A from the Health Volunteers						
No. de cápsulas dadas para suplir a las Vol. de Salud	Number of capsules supplied to the Health Volunteer						
No. de visitas domiciliarias hechas por la A/E para dar seguimiento a: IRA	Number of Home visits by Auxillary Nurses for follow up on Acute Respiratory Infection						
Diarreas	Diarrhea						
Educación Nutricional	Nutrition Education						
No. de visitas domiciliarias hechas por la Voluntaria de Salud para dar seguimiento a: IRA	Number of home visits by the Health Volunteer for follow up on Acute Respiratory Infection						
Diarreas	Diarrhea						
Educación Nutricional	Nutrition Education						
No. de niños que recibieron examen de ojos/referido por Auxiliar de Enfermería	Number of children who received eye exams/referred by Auxillary Nurse						
No. de niños que recibieron examen de ojos/referidos por Vol. de Salud	Number of children who received eye exams/referred by Health Volunteer						

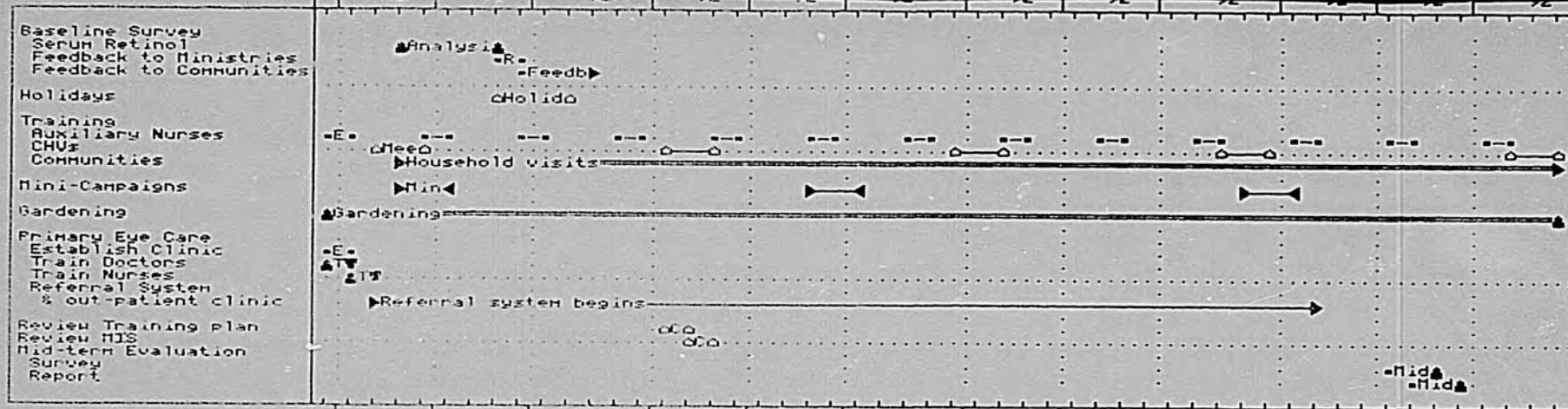
GUIDE FOR THE HOME VISITS MADE BY THE HEALTH VOLUNTEERS

Volunteers' Introduction

When the Health Volunteer goes for the first time to a house:

1. Say Hello - greet the persons in the house.
2. Say a nice phrase, and
3. Introduce yourself as a H.V. Tell the woman of the house that 30 houses of the community have been assigned to you to keep a health control; that one of those houses is hers. That you need all her collaboration because all you are doing is to benefit all the community member's health.
4. Explain to her that you will not only keep control of the children and herself, but that you will also train all of the registered families on:
 - How to prepare the food for your family.
 - How to prepare different Vit. A rich foods and at a low cost.
 - How to plant Vit. A rich foods in your house.
 - The children will be screened and if they have some kind of problem in their eyes, they will be referred to the General Doctor of the Health Center to be examined and let him decide if it is necessary to refer him to a Specialist.
 - Vit. A will be given to every child in the community; there will be vaccination places and they should take their children to get the Vit. A. capsule, that they will let them know the dates.

SITUATION	WHAT YOU MUST DO
1. Find children 5 yrs. old or less	<ol style="list-style-type: none"> 1. Ask the mother if the child is sick, if he has diarrhea, IRA. Follow the Guide for these cases. 2. Ask for the card to check: <ol style="list-style-type: none"> A. If the child has all the vaccines; if he doesn't, refer him to the Health Center. B. If the child received the Vit. A capsule; if he didn't, give it to him and write it down on the card. 3. Educate the mother on the importance of the vaccines and the Vit. A. 4. Come back to visit her to check on the evolution.
2. Find a child with diarrhea	<ol style="list-style-type: none"> 1. Question the mother about since when the child has diarrhea, frequency, consistency, odor. 2. Examine the child to check dehydration. 3. If he is not dehydrated, give him rice water, cinnamon or chamomile tea and continue feeding him. 4. If he is dehydrated, give him Litrosol, show the mother how to prepare it and refer him to the Health Center. 5. Come back to visit the child to check if he is getting better.
3. Find a child with IRA	<ol style="list-style-type: none"> 1. Question the mother since when the child is sick, if he has fever, cough, difficulty to breath. 2. Examine the child for dehydration, difficulty to breath, nasal obstruction. 3. Indicate he must drink Litrosol if he has fever and show the mother how to prepare it. 4. Refer him to the Health Center if he has fever and difficulty to breath. 5. Offer him lots of liquids and feed him.
4. Find a child that has not received Vit. A or that lacks a dose	<ol style="list-style-type: none"> 1. Give him a Vit. A capsule, according to his age: <ul style="list-style-type: none"> 6 - 12 months 100,000 UI 12- 60 months 200,000 UI 2. Explain the mother what is Vit. A good for and which are the foods rich in Vit. A and encourage her to include them in her daily diet.
5. Find a child with eye problems	<ol style="list-style-type: none"> 1. Refer him to the General Doctor of the Health Center. 2. Give the mother education on the problems caused by the lack of Vit. A.
6. Find a pregnant woman	<ol style="list-style-type: none"> 1. Ask her if she is under control and if they gave her the toxoid. 2. If she hasn't, refer her to the Health Center for control and so that they give her the toxoid. 3. Question her about how she feels, if she has headache, dizziness, swellsness, bleeding, fever. 4. Question her about the food she eats and orient her on the adequate food.



Analysis
11-21-91 to 12-19-91 [20 days]

Analysis of plasma for serum
retinol concentrations is
completed at the MOH laboratory

Report
12-19-91 to 12-26-91 [5 days]

Results are reported back to MOH
officials; Office of Nutrition
and 4 CeSSAMOs

Feedback to communities
12-26-91 to 01-16-92 [15 days]

Feedback to communities includes
meetings with Patronatos with
assistance from Auxiliary Nurses
and CHUs

Holidays
12-19-91 to 01-09-92 [15 days]

Holiday season. Many staff take
leave during this time period.

End-of-month meetings
10-31-91 to 11-07-91 [5 days]

End-of-month meetings are held
with Nurses to review HIS data;
prepare supervision schedules;
on-going training.

Meetings with CHUs
11-14-91 to 11-28-91 [10 days]

Auxiliary Nurses hold meetings
with small groups of CHUs to
discuss progress; receive
additional training modules.

Household visits
11-21-91 to 10-22-92 [240 days]

CHUs visit their households
2x/month; and hold small meetings
of Mothers; and join in women's
group activities

Mini-campaigns
11-21-91 to 12-05-91 [10 days]

Mini-campaigns are held in
conjunction with the MOH; vitamin
A is distributed every other
campaign; immunization is
provided at all campaigns; eye
screening will be provided at one
campaign

Gardening
10-31-91 to 10-22-92 [255 days]

Demonstration gardens are
established at 12 locations by
June 1992. Nutrition education
for CHUs begins to include
cooking demonstrations.

Establish clinic
10-31-91 to 11-07-91 [5 days]

The out-patient eye clinic is
established at the Las Crusitas
health center.

Training in PEC
10-31-91 to 11-07-91 [5 days]

Training for physicians from the
4 health centers is completed - 3
hours a day for 2 weeks.
Training also includes other
professional nurses.

Training for Auxiliary Nurses
11-07-91 to 11-14-91 [5 days]

TOT Training for Auxiliary Nurses
includes modules on PEC HIS and
referral activities.

Referral system begins
11-14-91 to 08-13-92 [195 days]

Screening and referral of
children by CHU and Auxiliary
Nurses begins; CeSSAMO physicians
refer to Las Crusitas.

Consultant visit
02-06-92 to 02-13-92 [5 days]

The project is assisted by the
visit of a consultant to review
the training plan.

Consultant visit
02-13-92 to 02-20-92 [5 days]

The project is assisted by a
consultant to review the HIS.

Mid-term evaluation survey
09-03-92 to 09-17-92 [10 days]

Mid-term survey completed.

Mid-term evaluation
09-10-92 to 09-24-92 [10 days]

Mid-term evaluation report is
completed.

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1991 COUNTRY PROJECT PIPELINE ANALYSIS: REPORT FORM A
INTERNATIONAL EYE FOUNDATION/HONDURAS

HEADQUARTERS	Actual Expenditures 7/1/90 - 9/30/91		Projected Expenditures 10/1/91 - 6/30/93		Agreement Budget 7/1/90 - 6/30/93		
	AID	IEF	AID	IEF	AID	IEF	TOTAL
PROCUREMENT							
Computer upgrades	500	0	0	0	500	0	500
Inter:VA Coord.	135	0	0	0	125	0	125
SUPPLIES							
Computer	0	0	150	300	150	300	450
General office	183	307	67	193	250	500	750
Prof./technical	0	64	240	436	250	500	750
SERVICES/CONSULT							
See Country Budget							
SUBTOTAL (PROC.)	818	371	457	929	1,275	1,300	2,575
EVALUATION (see country budget)							
SUBTOTAL (EVAL.)	0	0	0	0	0	0	0
INDIRECT COSTS							
OTHER PROGRAM COSTS							
HQ PERSONNEL							
Salaries	11,343	7,590	13,657	10,672	25,000	18,262	43,262
Fringe (30%)	1,797	1,252	5,703	4,227	7,500	5,479	12,979
SUBTOTAL (PERS.)	13,140	8,842	19,360	14,899	32,500	23,741	56,241
TRAVEL COSTS							
Airfare & PD	4,203	2,317	4,998	7,008	9,201	9,325	18,526
SUBTOTAL (Trav.)	4,203	2,317	4,998	7,008	9,201	9,325	18,526
OTHER DIRECT COSTS							
Office Operations							
Telephone/Fax	119	705	1,181	395	1,300	1,100	2,400
Postage/Courier	60	157	333	243	393	400	793
Freight	646	0	854	325	1,500	325	1,825
Subtotal (Other)	825	862	2,368	963	3,193	1,825	5,018
SUBTOTAL (IV)	18,168	12,021	26,726	22,870	44,894	34,891	79,785
TOTAL I,II,IV	18,986	12,392	27,183	23,799	46,169	36,191	82,360
Costs 24.41%	4,634	3,025	6,635	5,809	11,270	8,834	20,104
TOTAL HQ. COSTS	23,620	15,417	33,818	29,608	57,439	45,025	102,464

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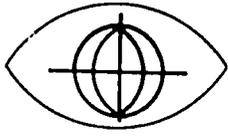
1991 COUNTRY PROJECT PIPELINE ANALYSIS: REPORT FORM A
INTERNATIONAL EYE FOUNDATION/HONDURAS

COUNTRY	Actual Expenditures 7/1/90 - 9/30/91		Projected Expenditures 10/1/91 - 6/30/93		Agreement Budget 7/1/90 - 6/30/93		
	AID	IEF	AID	IEF	AID	IEF	TOTAL
PROCUREMENT							
EQUIPMENT and SUPPLIES							
TECHNICAL							
Vehicle	0	13,618	0	1,382	0	15,000	15,000
Ophth. Equip.	341	4,646	0	0	0	1,000	1,000
Slide Proj.	0	0	0	350	0	350	350
Camera	0	0	0	300	0	300	300
OFFICE EQUIPMENT							
Computer	0	1,100	0	100	0	1,200	1,200
Printer	0	240	0	110	0	350	350
Volt. Reg./UPS	0	0	0	1,200	0	1,200	1,200
Office Furniture	85	90	0	3,910	0	4,000	4,000
Typewriter	0	240	0	10	0	250	250
Photocopier	0	850	0	150	0	1,000	1,000
Fax	0	550	0	50	0	600	600
SUPPLIES							
General Office	2,362	73	4,888	0	7,250	0	7,250
NutriAto1	0	0	0	4,000	0	4,000	4,000
Train. Materials	1,058	5	1,942	0	3,000	0	3,000
Main./Ins.	0	0	900	0	900	0	900
Uniforms	0	0	600	0	600	0	600
Vitamin A	0	0	0	2,000	0	2,000	2,000
SERVICES							
Local Consultant Support (30 days/yr)	482	3,300	4,768	0	5,250	0	5,250
Travel/Per Diem	0	150	0	11,850	0	12,000	12,000
Enumerators & logistic support	1,220	0	2,280	0	3,500	0	3,500
SUBTOTAL I.	5,548	24,862	15,378	25,412	20,500	43,250	63,750
EVALUATIONS	0	0	20,000	5,000	20,000	5,000	25,000
SUBTOTAL II.	0	0	20,000	5,000	20,000	5,000	25,000
I. INDIRECT COSTS (See G & A line item)							
OTHER PROGRAM COSTS							

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1991 COUNTRY PROJECT PIPELINE ANALYSIS: REPORT FORM A
INTERNATIONAL EYE FOUNDATION/HONDURAS

COUNTRY	Actual Expenditures 7/1/90 - 9/30/91		Projected Expenditures 10/1/91 - 6/30/93		Agreement Budget 7/1/90 - 6/30/93		
	AID	IEF	AID	IEF	AID	IEF	TOTAL
PERSONNEL							
Project Director	19,500	0	22,375	19,500	41,875	19,500	61,375
Benefits	0	1,492	0	3,000	0	0	0
Hond.Field Salary	16,692	0	94,328	0	111,020	0	111,020
Benefits	1,452	0	12,628	0	14,080	0	14,080
SUBTOTAL IV. A.	37,644	1,492	129,331	22,500	166,975	19,500	186,475
TRAVEL AND PER DIEM							
Short-term							
Local staff per diem	4,769	0	9,331	0	14,100	0	14,100
Local staff travel							
Intl. Prof. Meet.							
Airfare/per diem)							
Subtotal IV. B.	4,769	0	9,331	0	14,100	0	14,100
Other Direct Costs							
Vehicle Operat.							
Fuel	513	0	7,987	0	8,500	0	8,500
Maint./Spares	1,379	0	3,871	0	5,250	0	5,250
Ins/Lic/Reg	1,381	0	3,205	0	4,586	0	4,586
Office Operations							
Rent/repairs	1,380	0	0	4,000	900	4,000	4,900
Telephone/Instal.	360	0	3,040	0	3,400	0	3,400
Postage/Courier	174	0	1,026	0	1,200	0	1,200
Utilities	0	0	1,200	0	1,200	0	1,200
Miscellaneous	349	0	635	0	984	0	984
Freight/Ins.	0	0	2,000	0	2,000	0	2,000
Training Sessions							
Per Diems	0	0	600	0	600	0	600
Supplies	0	0	1,500	0	1,500	0	1,500
Facilities	0	0	1,500	0	1,500	0	1,500
Subtotal IV. C.	5,536	0	26,564	4,000	31,620	4,000	35,620
BTOTAL IV. A.B.C.	47,949	1,492	165,226	26,500	212,695	23,500	236,195
BTOTAL	53,497	26,354	200,604	56,912	253,195	71,750	324,945
% A 24.41%	12,975	1,365	48,967	13,189	61,805	12,632	74,437
TOTAL	66,472	27,719	249,571	70,101	315,000	84,382	399,382



Annex

Training Curriculum

MINISTRY OF HEALTH - TRAINING IN CHILD SURVIVAL

Objective: To train the CHV's of the peri-urban area of Tegucigalpa in all the interventions included in Child Survival in order to get active community participation in the prevention and solution of health problems.

DURATION	SUBJECT	CONTENTS/ACTIVITY
1 day	Opening	<ul style="list-style-type: none"> Participants expectation - Objective - Methodology - Schedule - Introduction to the group
	Health policy - Structure of Health System	<ul style="list-style-type: none"> - Organization for community participation - CHV's <ul style="list-style-type: none"> * Concepts * Requirements * Functions - Coordination of groups - How to lead a reunion
	Health Information System	<ul style="list-style-type: none"> - Management of HIS
2 day	Diarrhea	<ul style="list-style-type: none"> - Concept, signs, and symptoms - Evaluation of hydration status - Causes - Prevention - Management and treatment - Nutrition education and breast-feeding - Evaluation of the work of the CHV discussion group in the control of diarrhea - Action plan to improve this intervention with the CHVs
	ORT	<ul style="list-style-type: none"> - Concept - Advantages of oral rehydration - When and how to use it - How to prepare it
	ARI	<ul style="list-style-type: none"> - Description of problem - Signs and symptoms - Etiologic agents - Risk factors - Methods of control <ul style="list-style-type: none"> * Immunization * Medicines - Nutrition education <ul style="list-style-type: none"> * Breastfeeding - Treatment

Este paquete diluido en un litro de agua potable, proporciona las siguientes concentraciones de sales:

Sodio	90 mmol/l
Cloruro	80 mmol/l
Potasio	20 mmol/l
Citrato	10 mmol/l
Glucosa	110 mmol/l

La solución de Sales de Rehidratación Oral, junto con la toma de otros líquidos y el mantenimiento de la alimentación adecuada del niño, permite reponer las pérdidas ocasionadas por la diarrea.

- Se ha comprobado que la inclusión de glucosa mejora la absorción de agua y electrolitos, por su papel de transportador del sodio.
- El sodio cumple varias funciones:
 - corrige la acidosis provocada por la pérdida de electrolitos.
 - disminuye la intensidad de los vómitos, al facilitar el vaciamiento gástrico.
 - facilita la captación intracelular de potasio
 - en comparación al bicarbonato, que se usa en algunas preparaciones, da más estabilidad a la fórmula.
- La SRO proporciona potasio para reponer las pérdidas de este elemento. Sin embargo, por razones de osmolaridad, la solución de SRO no puede proporcionar la cantidad suficiente, por lo cual es importante complementar la TRO con alimentos de alto contenido en potasio (plátano, banano y cítricos).

En la prevención de la deshidratación, en particular a nivel del hogar, se pueden utilizar líquidos alternativos, tales como: atole de arroz, agua de coco, té de canela, té de manzanilla y otros. Sin embargo, cuando existen signos de deshidratación, se debe utilizar de preferencia el Litrosol, por la mejor adecuación de su contenido para la reposición de los electrolitos.

SUERO CASERO

La utilización de una solución "casera" de agua, azúcar y sal puede ser peligrosa puesto que no se puede garantizar una concentración adecuada de azúcar y de electrolitos.

En consecuencia, esta solución no se debe utilizar más. Las bebidas gaseosas tampoco deben utilizarse ya que su osmolaridad es alta y aumenta las pérdidas de líquidos en las heces.

3. Causas de la diarrea:

En los últimos años, varios estudios han permitido determinar el origen infeccioso del 60 a 80% de los casos de diarrea aguda. Los agentes patógenos más frecuentes son:

Patógenos	Más importantes	Menos importantes
<u>Virus</u>	Rotavirus	Virus tipo Norwalk
<u>Bacterias</u>	Shigella Escherichia Coli Campylobacter Jejuni	Salmonella
<u>Parasitos</u>	Entamoeba Histolítica (amebas) Giardia Lamblia	
<u>Hongos</u>		Candida albicans

Dada la variedad del cuadro clínico, puede ser difícil, en la ausencia de exámenes de laboratorio, determinar la etiología de un episodio diarreico.

La presencia de diarrea líquida, profusa, con vómitos frecuentes sin fiebre alta, sugiere un origen viral que es lo más frecuente. El origen bacteriano se sospecha ante una disenteria abundante, con fiebre elevada y mal estado general. Una disenteria escasa, sin fiebre ni alteración del estado general sugiere una etiología amebiana.

Es preciso mencionar que la gran mayoría de los episodios de diarrea aguda en el niño, no necesitan tratamiento etiológico con antibiótico, ya que suelen resolverse por sí mismos en pocos días sin otro tratamiento que la Terapia de Rehidratación Oral con manejo nutricional adecuado, ya que frecuentemente corresponden a etiología viral.

Epidemiología de los agentes patógenos

Los agentes infecciosos se transmiten todos por vía fecal-oral, por contaminación de alimentos y agua, y algunos se transmiten directamente de persona a persona.

Pueden tener una variación estacional; por ejemplo, los Rotavirus ocasionan más diarreas en la época lluviosa, mientras que las diarreas por Shigella, E. Coli o Salmonella son más frecuentes en temporadas calientes.

Las infecciones pueden sobrevenir en brotes epidémicos y algunos patógenos se manifiestan más en instituciones o donde hay condiciones de hacinamiento (Shigella, E. coli, Salmonella, virus Norwalk).

En base a lo anterior, se pueden definir medidas de prevención y de control de la diarrea en relación al medio ambiente:

- adecuada higiene personal y doméstica (especialmente lavado de manos antes y después de comer, y después de utilizar el servicio o letrina),
- preparación y almacenamiento higiénico de los alimentos,
- disponibilidad de agua limpia en cantidad suficiente,
- disposición higiénica de excretas y basuras,
- lactancia materna.

Otras causas comunes de diarrea aguda:

- infecciones concomitantes: especialmente sarampión. La aplicación oportuna de la vacuna antísarampiosa es una de las medidas más factibles y eficaces de prevención de la diarrea y de sus complicaciones (deshidratación y daño nutricional),
- uso de medicamentos purgantes o laxativos,
- desnutrición severa (estas últimas son causas producen más frecuentemente diarreas persistentes).

4. Diarrea y medicamentos

La Terapia de Rehidratación Oral, en la mayoría de los casos de diarrea aguda, es la única terapia necesaria.

Uso de antibióticos y antiparasitarios

No se ha probado el valor del uso rutinario de antibióticos en casos de diarrea aguda. Las indicaciones de drogas antiinfecciosas se limitan a casos bien específicos que no deberían constituir más de 10-15% del total de casos.

- En las diarreas moderadas o graves, con fiebre elevada (mayor de 38.5C) y sangre en las heces, causadas principalmente por Shigella, se debe usar un antibiótico aún sin contar con el resultado de un coprocultivo. Se recomienda el trimetoprim/sulfametoxazol ó la ampicilina.

En los niños menores de 2 meses, en los cuales la diarrea se acompaña de bacteriemia se debe considerar el uso de antibióticos de más amplio espectro por vía parenteral. No está indicado el Trimetoprim/Sulfametoxazol.

la disentería causada por E. Histolítica o G. Lamblia, comprobada por identificación de los trofozoitos en las heces o por las manifestaciones clínicas, se trata con Metronidazol.

- b) Uso de medicamentos: NO SE DEBE USAR antiespasmódicos, purgantes, ni absorbentes en el manejo de casos de diarrea, ya que tienen efectos secundarios en los niños y no reducen las pérdidas de agua y electrolitos, tampoco reducen la duración de la diarrea.
- c) en caso de fiebre elevada (mayor de 38.5 C), se puede indicar acetaminofen: 10 - 15 mg/kg cada 6 horas.

5. Manejo nutricional del niño que tiene diarrea:

Se ha comprobado que la diarrea, y especialmente los episodios repetidos, pueden tener una influencia dañina sobre el crecimiento y desarrollo del niño menor de cinco años y sobre su estado nutricional.

El daño nutricional ocasionado por la diarrea proviene de varios factores:

- a) disminución de las ingestas de alimentos por falta de apetito,
- b) malas prácticas alimentarias, que comprenden la suspensión de la alimentación del niño durante la diarrea y el período de convalecencia,
- c) aumento de las pérdidas de nutrientes por las heces y los vómitos,
- d) aumento del gasto energético por la fiebre.

El impacto de esos factores aumenta con cada episodio, cuya sucesión puede precipitar una desnutrición severa.

Mantener una alimentación adecuada durante la enfermedad y el período de convalecencia permite disminuir los daños de la mucosa intestinal y favorece el reinicio del crecimiento después del episodio diarreico. Algunas dietas locales a base de vegetales o cereales permiten reducir el volumen de las evacuaciones, lo que facilita la aceptación por la madre de la TRO.

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INT'EYE FND HORQUERAS

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Estudios internacionales con varios tipos de dietas (incluyendo combinaciones de alimentos como zanahoria, papas, plátano, arroz, hanna de maíz, frijoles, aceite, azúcar, leche, etc.) han demostrado que, aunque el niño tenga diarrea, existe una absorción importante de los nutrientes, como se puede ver en el siguiente cuadro:

	Promedios de los coeficientes de absorción	
	Durante la diarrea	Durante la convalecencia
Proteínas	47 - 83 %	66 - 83 %
Energía (calorías)	70 - 88 %	85 - 91 %

(Fuente: B. Torun, INCAP, 1988)

Por eso, durante un episodio diarreico, no se debe suspender la alimentación más que el tiempo necesario para la rehidratación inicial del niño que tiene deshidratación grave con choque (4- 6 horas).

Características de los alimentos que se pueden utilizar para el manejo nutricional del niño que tiene diarrea:

- deben ser alimentos de buen valor nutricional (adecuado aporte de proteínas).
- de buena densidad energética (es decir, el máximo número de calorías por el volumen mínimo).
- con un contenido aceptable de micronutrientes (minerales, vitaminas, electrolitos).
- Deben tener buena digestibilidad y absorción intestinal.
- deben ser apetitosos para el paciente y sus padres.
- fáciles de preparar,
- culturalmente aceptables por los padres y el niño
- accesibles por su disponibilidad y su costo.

Algunos factores dificultan la recomendación y la implantación de buenas prácticas alimentarias:

- persistencia de costumbres erróneas (ayuno por ejemplo).

recomendación de alimentos que no pueden ser comprados por la familia por su poca disponibilidad o alto costo (por ejemplo las fórmulas lácteas especiales).

uso de esos alimentos en los servicios médicos, lo que desprecia a los alimentos tradicionales.

conocimiento insuficiente sobre la disponibilidad y valor nutricional de las dietas locales.

A continuación, se exponen algunas recomendaciones prácticas para el manejo nutricional adecuado del niño con diarrea:

Siempre se debe estimular la lactancia materna durante y después de la diarrea, ya que contribuye a:

- mantener la hidratación del niño,
 - reducir la severidad y duración de la diarrea
 - evitar que la enfermedad del niño constituya una ocasión inoportuna de destete prematuro.
- Además, la lactancia materna exclusiva tiene un efecto preventivo en la ocurrencia de diarrea, sobre todo en el niño menor de 6 meses.

Leche de vaca: la mayoría de los niños mayores de 6 meses que tienen diarrea toleran cantidades pequeñas de leche de vaca y, siendo la leche un alimento líquido, permite contribuir a la reposición de las pérdidas debidas a la diarrea.

Se debe usar la leche sin diluirla, en cantidades pequeñas y fraccionadas. Si se observa un incremento marcado en el volumen de evacuaciones, pérdida de peso, vómitos o deshidratación que pudieran estar asociados a la dieta láctea, se debe mezclar la leche con cantidades iguales de otras comidas durante 1 a 2 días, y continuar después con la administración de la leche en su forma habitual.

La reintroducción progresiva de la leche después de una suspensión o la disminución de la cantidad ofrecida no ha demostrado ninguna ventaja y puede prolongar excesivamente el período en el cual el niño no recibe un aporte calórico adecuado; esto sucede también con la dilución excesiva de la leche. Solamente en casos de mala absorción importante de la lactosa o de intolerancia a la proteína de la leche, se utilizarán substitutos como la leche a base de soya o de lactosa hidrolizada.

Utilizar también alimentos de alta densidad energética y alto contenido nutricional.

añadir aceite o azúcar a la leche descremada y a otros alimentos de baja densidad energética (2.5 ml de aceite vegetal o 2.5 g de azúcar por 100 ml de leche), según tolerancia.

utilizar los alimentos que el niño comía antes de enfermarse con prioridad a los que más le gustan y los líquidos (para la prevención y tratamiento de la deshidratación). Por razón de la falta de apetito y la capacidad gástrica limitada del niño pequeño, se deben dar comidas frecuentes, en cantidades pequeñas pero no se debe forzar al niño. Sin embargo, en pacientes severamente anoréxicos, se puede recurrir a la sonda nasogástrica.

Las comidas locales a base de cereales, vegetales, tubérculos, aceite y azúcar son bien toleradas durante la diarrea y algunas de ellas reducen la duración de la diarrea o mejoran la apariencia de las heces, lo cual es importante para la madre.

Las buenas prácticas alimentarias son muy importantes durante el período de convalecencia en el cual el niño recupera apetito y puede reiniciar adecuadamente su crecimiento ponderal si se le da los insumos necesarios. El INCAP recomienda aumentar la cantidad habitual de proteínas en un 40% y la cantidad de calorías en un 25 a 50%, durante un tiempo de 2 a 4 veces la duración de la enfermedad. En la práctica, se recomienda dar 1 comida adicional diaria durante 2 semanas después del episodio diarreico.

En el manejo nutricional del niño con diarrea, así como en el manejo de la rehidratación oral, la participación de los padres y la aceptación del tratamiento propuesto son factores esenciales del éxito y necesitan un esfuerzo educativo importante. Este esfuerzo es más difícil de realizar si se compara con la simple prescripción de un tratamiento antibiótico pero es más útil a mediano y largo plazo, ya que asegura el crecimiento y desarrollo adecuado del niño.

IV. NORMAS Y PROCEDIMIENTOS

IV. A MEDIDAS DE PREVENCIÓN

1. El personal institucional y los agentes comunitarios de salud, promoverán en la comunidad y a los padres de los niños menores de cinco años los aspectos relacionados con la prevención de la enfermedad diarreica y parasitaria.



1.1 Promover las diferentes medidas de prevención de las enfermedades diarreicas y parasitarias

- Lavado de manos antes de preparar la comida, antes de comer y después de usar la letrina.
- Hervido del agua para beber.
- Disponibilidad de una cantidad suficiente de agua.
- Mantenimiento adecuado de la higiene personal.
- Higiene para la preparación y conservación de los alimentos.
- Disposición adecuada de excretas, enfatizando en la adecuada eliminación de las heces de los niños.
- Práctica de la lactancia materna:
 - Apego precoz
 - Lactancia materna exclusiva durante 6 meses
 - Continuación de la lactancia materna por lo menos durante uno o dos años.
- Conservación y mantenimiento del estado nutricional, a través de una adecuada alimentación y suplementación periódica con Vitamina "A".
- Aumento de las coberturas de vacunación en todos los biológicos, principalmente la vacuna antirampionosa.

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CUADRO No. 1
EVALUACION DEL GRADO DE DESHIDRATACION
DEL NIÑO CON DIARREA

SIGNOS Y SINTOMAS	A	B	C
CONDICION	Buen, alerta	INTRANQUILO, IRRITABLE	* COMATOSO, HIPER- TONICO*
OJOS	Normales	hundidos	Muy hundidos y secos
LAGRIMAS	Presentes	Ausentes	Ausentes
BOCA Y LENGUA	Humedas	Secas	Muy secas
SED	Bebe normal sin sed	SEDIENTO, BEBE RAPIDO Y AVIDA- MENTE	* BEBE MAL O NO ES CAPAZ DE BEBER*
EXPRESION			
SIGNO DEL PLEGUE	desaparece rápidamente	DESAPARECE LENTAMENTE	* DESAPARECE MUY LENTAMENTE*
DECU	NO TIENE SIGNOS DE DESHIDRATACION O SOLO UN SIGNO DE LA COLUMNA B.	PRESENTA 2 ó MAS SIGNOS DE LA COLUMNA B	PRESENTA 2 ó MAS SIGNOS DE LA COLUMNA C
CLASIFICAR COMO:	DIARREA SIN DESHIDRATACION	DIARREA CON ALGUN GRADO DE DESHI- DRATACION	DIARREA CON DESHIDRATACION GRAVE Además tiene uno de los signos marcados* tiene DESHIDRATACION GRAVE CON CHOQUE
PLAN DE TRATAMIENTO	USE PLAN A	USE PLAN B	USE PLAN C

NOTA: El llenado capilar mayor de 5 segundos, es útil para verificar la presencia de choque hipovolémico. También el pulso radial ausente o muy débil y/o la presión sanguínea baja, son indicativos de choque hipovolémico.

IV. D. MANEJO DE CASOS DE NIÑOS CON DIARREA

IV. D. PREPARACION DE LA SOLUCION DE SALES DE REHIDRATACION ORAL (LITROSOL / HIDROSOL U OTRO)

- 6.1 Disponer de una medida con capacidad de un litro (litrobolsa, botella de fresco u otro).
- 6.2 Disponer de sobres de sales de rehidratación oral, (hidrosol, litrosol u otro, aprobado por el Ministerio de Salud Pública).
- 6.3 Observar que las sales se encuentren herméticamente selladas, no granuladas y sin alteraciones de color. (Regularmente se debe realizar un muestreo para conocer el estado de las sales almacenada.
- 6.4 Lavarse las manos con agua y jabón antes de hacer la preparación.
- 6.5 Usar agua limpia (mejor si está hervida o filtrada, aunque no necesariamente).
- 6.6 Agregar el contenido de un sobre de S. R. O. a un litro de esta agua y mezclar hasta que el contenido esté diluido.
- 6.7 Proteja la solución para evitar la contaminación con polvo y con otras sustancias.
- 6.8 Bote lo que queda de la solución después de 24 horas.
- 6.9 Utilice, para la administración de la solución, una taza y/o una cucharadita o el recipiente que suele usar el niño, siempre que éstos estén previamente limpios.



IV.D.2 MANEJO DE CASOS A NIVEL COMUNITARIO

7. Los agentes comunitarios identificarán la presencia de deshidratación en el niño con diarrea, en base al reconocimiento de las siguientes señales:
- mollera hundida
 - ojos hundidos
 - falta de lágrimas
 - boca seca
 - mucha sed
 - pliegue de la piel
 - orina poco
 - desahogado
 - decaído

8. Los agentes comunitarios indicarán las medidas orientadas a prevenir la deshidratación y la alteración del estado nutricional del niño con diarrea.

7.1 Determinar que el niño tiene diarrea con deshidratación si presenta dos o más de las señales mencionadas.

7.2 Determinar que el niño tiene diarrea sin deshidratación si no presenta ninguna o si presenta solamente una de las señales mencionadas.

8.1 Promover el uso de líquidos tradicionales (té, de manzanilla, atole de arroz, té de canela, jugos etc.) y evitar el uso de refrescos embotellados y jugos artificiales.

8.2 Entregar 3 sobres de Litrosol.

8.3 Indicar a los padres la forma correcta de preparación de Litrosol.

8.4 Orientar a los padres para que den los líquidos tradicionales y el Litrosol frecuentemente, en cantidades pequeñas y en particular después de cada evacuación y/vómito, utilizando preferiblemente una taza y cuchara.

Nota: Administrar el Litrosol en biberón aumenta los vómitos.

8.5 Indicar la continuación de la lactancia materna y de la alimentación habitual durante el episodio diarreico.

8. Los agentes comunitarios indicarán las medidas orientadas a prevenir la deshidratación y la alteración del estado nutricional del niño con diarrea.

9. Los Agentes Comunitarios tomarán medidas inmediatas encaminadas a evitar la muerte por las complicaciones de la diarrea que pongan en peligro la vida del niño:

- Deshidratación
- Diarrea con sangre
- Diarrea con vómitos incontrolables
- Diarrea persistente más de 15 días.

8.6 Indicar la importancia de dar por lo menos una comida adicional durante dos semanas después del episodio diarreico.

8.7 Orientar a los padres sobre el reconocimiento de las señales de peligro y la importancia de acudir al centro de salud cuando se presenta.

- 8.8 Orientar a los padres sobre las medidas de prevención para evitar la recurrencia de la diarrea:
- Lavado de manos
 - Hervido del agua
 - Uso abundante del agua
 - Disposición de excretas y basuras
 - Higiene personal
 - Preparación y conservación de alimentos
 - Lactancia materna
 - Vacunación

8.9 Orientar a los padres para que no den purgantes o aceites al niño con diarrea.

9.1 Iniciar de inmediato la rehidratación utilizando sobres de Litrosol.

9.2 Referir al niño de inmediato al Centro de Salud más cercano, orientando a los padres sobre la importancia de continuar administrándole líquidos mientras dure el traslado.

- 9.3 Referir a todo niño que presente
- Diarrea con 2 o más signos de deshidratación.
 - Diarrea con sangre
 - Diarrea con vómitos incontrolables
 - Diarrea persistente (más de 14 días)
 - Diarrea con distensión abdominal



ANEXO I

PROMOCION Y EDUCACION PARA LA SALUD EN EL CONTROL DE ENFERMEDADES DIARRÉICAS

Para el Componente Control de Enfermedades Diarréicas, la Promoción y Educación para la Salud es un elemento de apoyo fundamental que permite orientar a los padres o personas responsables del niño con problema diarréico.

A continuación se detallan algunos mensajes educativos que se pueden ofrecer:

a. Diarrrea y Deshidratación

1. Inmediatamente que empiece la diarrea en su niño, déle los líquidos que Ud. pueda preparar en su casa: té de manzanilla, atole de arroz o de maíz, agua de coco, té de canela, etc. También le puede dar Lirosol.
2. Déle éstos líquidos en pequeñas cantidades y frecuentemente, especialmente después de cada evacuación y cada vómito.
3. Las señales de deshidratación son: sed, ojos hundidos, llanto sin lágrimas, boca y lengua seca, fontanela hundida, poca orina.
4. Traiga nuevamente su niño al centro de salud si:
 - aparecen señales de deshidratación
 - aparece sangre en las heces
 - si tiene vómitos incontrolables
 - otros signos de peligro
5. Si el niño tiene fiebre vístalo con ropa liviana para evitar el calor excesivo.
6. Cuando su niño tiene diarrea, no le de purgantes ni otros medicamentos.

b. Alimentación del Niño que tiene Diarrea

1. No suspenda la lactancia materna
2. Continúe dándole la alimentación habitual del niño para que no se desnutra, déle los alimentos en cantidades pequeñas pero más frecuentemente.
3. Déle los alimentos del agrado del niño y que sean nutritivos. Evite golosinas, gaseosas y dulces.

4. No diluya la leche con más agua que lo indicado, puede mezclarla con otros alimentos.
5. Cuando el niño se recupere de la diarrea, déle por lo menos una comida adicional cada día durante 2 semanas; esto permitirá que gane nuevamente el peso que pudo haber perdido durante la diarrea.
- c. Prevención de la diarrea.
 1. Lávese las manos para preparar los alimentos, antes de comer, antes de darle la alimentación al niño y después de hacer sus necesidades.
 2. Lave y/o cocine bien los alimentos que ofrecerá al niño.
 3. Hierva el agua que toma el niño.
 4. Debe evitar que la familia defaque al aire libre; use o construya una letrina o entierre las heces, especialmente las de los niños.
 5. Entierre la basura o bótelas en un lugar apropiado alejado del hogar.
 6. Bañe diariamente al niño aunque tenga diarrea u otra enfermedad.
 7. Vacune a su niño.

NOTA:

- Evite dar demasiados mensajes o educativos en una consulta.
- Elija los mensajes educativos de acuerdo a cada caso.
- Relacione los mensajes con los que se difunden por otros medios (radio, afiches, rotafolios, folletos etc).
- Asegúrese de que los padres o encargados entiendan el mensaje educativo.



ANEXO 2

GUÍA DE SUPERVISIÓN SOBRE EL CONTROL Y MANEJO DE LAS ENFERMEDADES DIARREICAS

El personal de salud es el responsable de la ejecución de la siguiente guía de supervisión para el nivel operativo.

ACTIVIDADES Y TAREAS INDICATIVAS	OBSERVACIONES AL EJECUTAR LA ACTIVIDAD Y/O PREGUNTA	VERIFICAR A TRAVÉS DEL INTERROGATORIO Y SOLICITUD DE INFORMACION
1. Detección del niño con diarrea.	<ul style="list-style-type: none"> - Cómo hace el interrogatorio. - En qué lugar hace el interrogatorio. - Qué aspectos se toman en cuenta para efectuar el interrogatorio. 	<ul style="list-style-type: none"> - Revisar formulario AT-1 - Revisar hoja control (HC-11)
1.1 Interrogatorio de la madre y/o responsable del niño.		
1.2 Examen físico	<ul style="list-style-type: none"> - Es completo el examen físico - Explica a la madre y/o responsable del niño lo que está haciendo. - Comprueba la presencia o no de los signos de deshidratación. - Se integra el interrogatorio con el examen físico - Registra la información obtenida en el interrogatorio y el examen físico. 	<ul style="list-style-type: none"> - Revisar hoja de control (HC-11) - Revisión formulario AT-1
1.3 Clasificación de la deshidratación	<ul style="list-style-type: none"> - Clasifica el estado de deshidratación de los niños evaluados. - En qué formulario registra la información 	<ul style="list-style-type: none"> - Revisar hoja control (HC-11).
1.4 Referencia	<ul style="list-style-type: none"> - En qué caso refiere a los niños que tienen diarrea - En qué formulario registra la referencia 	<ul style="list-style-type: none"> - Revisar formulario AT1 y copias de los formularios de referencia - Hoja control (HC-11)

NUTRITION FACTS:

1. FACTS ON FOOD PRODUCTION AND STORAGE

- A. Many people have a vegetable garden at their house. Growing vegetables help provide healthy foods and can be fun for the family.
- B. Vegetables gardens do not require large spaces; you can use the space next to your house or you can even grow vegetables in old tires or empty containers.
- C. Planting fruit trees, such as papaws, guavas, mangoes, bananas and citrus is easy and will provide good snacks for the family. Plant more trees if you want to sell fruit in the market. It is best to plant trees as soon as possible as trees take several years to produce fruit.
- D. Growing several different types of food will supply a variety of food in family meals.
- E. Growing maize, beans, root crops (sweet potatoes, carrots), vegetables, and fruits will ensure that families have food the whole year.

NUTRITION FACTS:

2. FACTS ON CHOOSING FOOD FOR THE FAMILY

- A. Beans, groundnuts, cheese, and eggs are as good as meat for a meal.
- B. Dark green vegetables like quilete, bledo, apazote, chipilin and orange vegetables like pumpkin and camote have more food value than pale vegetables.
- C. Yellow maize has more vitamins than white maize.
- D. Milk is better for children than soft drinks.
- E. Fresh fruits are better for snacks than packaged foods bought at the market.

NUTRITION FACTS:

3. FACTS ON FEEDING ADULTS AND OLDER CHILDREN
 - A. Pregnant or breastfeeding women also work hard and need more food than men.
 - B. Children who are given food in the morning before going to school are in general more alert in class.
 - C. Healthy in between meals snacks like fruits help children to grow and remain healthy.

NUTRITION FACTS:

4. FACTS ON NUTRITION AND WOMEN

- A. Women who are pregnant need extra food and rest for the growth of a healthy baby.
- B. Pregnant women need a great variety of food to increase the chances of having a healthy baby, to help avoid complications and to remain healthy herself. There are no foods that should be avoided during pregnancy.
- C. Frequent pregnancies weaken the mother and increase the risk of having a small weak baby.
- D. Getting pregnant at an early age or very late age increases the health risks for both mother and baby.
- E. If a mother rests 2-3 years between pregnancies, she can breastfeed for a long time, have time to care for the baby properly and can fully recover from child bearing.
- F. Girls who are healthy and well-fed during their own childhood and teenage years have fewer problems in pregnancy and childbirth. Adolescent girls also need a variety of good foods to grow well.

NUTRITION FACTS:

5. FACTS ON BREASTFEEDING

- A. Breastmilk alone is the best food and drink for babies until they are 4-6 months old, and they need nothing else.
- B. Frequent sucking is needed to produce enough breastmilk for the baby's needs.
- C. Babies should start to breastfeed as soon as possible after birth. Virtually every mother can breastfeed her baby.
- D. Children need to be breastfed until they are at least two years old.
- E. It is always safe for sick mothers to continue breast-feeding. If a mother is forced to stop for a few days she can start again if the baby suckles frequently.
- F. It is safe for pregnant mothers to breastfeed.
- G. Bottle-feeding can lead to serious illness and death.

02

NUTRITION FACTS:

6. FACTS ON FEEDING INFANTS AND PRESCHOOL CHILDREN

- A. Breast milk alone is not enough after the age of 4 months. Other foods need to be introduced gradually in order for the baby to continue to grow well.
- B. The right foods for babies aged around 4-6 months are mixed atole. You can mix many different types of foods you have available in the house (mashed banana, sweet potato, papaw and other fruit) into the atole. Breastfeeding also needs to be continued. Try making different recipes with the foods you have available.
- C. Frequent feeding is necessary for young children because they have small stomachs and cannot eat much at one time.
- D. Babies aged 6-8 months are more likely to get enough if fed at least 4 times a day in addition to breastfeeding.
- E. At around 8 months a child needs to start eating the family meals in addition to weaning foods and breast milk.
- F. Young children that are given snacks between meals are likely to eat enough food. Good snacks are fruits, boiled yucca and pumpkin with sugar and cinnamon.
- G. Children with diarrhea often die because they do not drink enough. They need to be given plenty of fluids and food, as well as should continue to be breastfed.
- H. Children recovering from an illness need extra food to regain lost weight and strength.
- I. All children need foods rich in vitamin A like quilete, carrots, sweet potatoes, papayas, and mangos.

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NUTRITION FACTS:

7. FACTS ON CHILD GROWTH

- A. Children often stop gaining weight when they start weaning. At this time their growth needs to be watched carefully. If the child is not gaining weight, something is wrong.
- B. Children often lack vitamin A in their bodies. Vitamin A protects children from many illness like diarrhea and measles.
- C. Vitamin A comes from vitamin A capsules, breastmilk, dark green leafy vegetables and orange and yellow fruits and vegetables.
- D. After an illness, children need extra food. Add a small amount of lard/oil to the family food, and try to add vitamin A rich foods.
- E. If a child has diarrhea or measles, vitamin A is lost from the child's body. You can replace vitamin A by breastfeeding more often, and by feeding the child fruits and vegetables.
- F. Children who are malnourished and/or have measles are at risk of serious eye disease. They need to be taken to the clinic immediately for a complete course of vitamin A capsules.

NUTRITION FACTS:

8. IMMUNIZATION

- A. Immunization protects against several major diseases. A child who is not immunized is more likely to become undernourished, to become disabled, and to die.
- B. A child who is not immunized can get measles and whooping cough which can kill or weaken your child. Measles is also a major cause of malnutrition and blindness.
- C. Breastfeeding is a kind of natural immunization against several diseases. It is important to breastfeed and to immunize your child.
- D. All children should be immunized by the first year of life. The child must complete all immunizations. This will take 4 to 5 visits to the clinic during the year.
- E. It is safe to immunize a sick child.
- F. Sometimes children who receive immunizations cry, develop a rash, or a fever. Give your child extra foods and liquids. If the problems continues more than three days, go to the health center.
- G. Every women between the ages of 15 and 44 should be fully immunized against tetanus.

NUTRITION FACTS:

9. DIARRHEA

- A. Many children get diarrhea throughout the year. Diarrhea is dangerous because it drains liquid from the child's body. As soon as diarrhea starts, it is essential to give the child extra drinks to replace the liquids that are lost.
 - B. Suitable drinks to give a child with diarrhea are: breastmilk, gruels, juice, soups, teas, and water from boiling rice.
 - C. Sometimes the health center has packets of Litrasol which is mixed with water and given to children with diarrhea. This is a special drink that you should ask the health center about.
 - D. Litrasol should be mixed with clean water and given to the child with diarrhea every time a watery stool is passed.
 - E. If you do not have any of these drinks available, weak tea is also good for diarrhea.
 - F. Give liquids to the child from a cup and not a bottle. For small children use a spoon. If the child vomits, wait for a few minutes and begin again.
 - G. Give extra liquids and food until the diarrhea has stopped.
 - H. A child with diarrhea needs extra foods; don't stop feeding your child.
 - I. Children who are sick usually have less appetite, so offer small amounts frequently.
 - J. See the health center if the child has no tears or has too much diarrhea. If the health center is far, ask your neighbor for help.
 - K. Most medicines for diarrhea will not help your child and they are expensive to buy.
 - L. Diarrhea and other diseases can be prevented by using latrines and keeping them clean.
 - M. Washing hands very well after using the latrine and before handling food prevents diarrhea and other diseases.
- . 91

NUTRITION FACTS:

10. COUGHS

- A. Most children get coughs and colds and most get better by themselves. Sometimes children get pneumonia and they need special attention.
- B. If a child with a cough is breathing much too rapidly, then the child is in danger. Bring the child to a clinic immediately.
- C. Families can help prevent pneumonia by making sure babies are breastfed for at least 6 months and that all children are well-fed and immunized.
- D. A child with a cough or cold should be helped to eat and drink plenty of liquids.
- E. A child with a cough or cold should be kept warm, but not hot and should breath clean, non-smoky air.

1991
USAID Health and Child Survival Project
Questionnaire

with AIDS/HIV Activities Reporting Schedule

PVO Grant

	Pages
Main Schedule.....	1 - 6
Schedule 1 - Demographic.....	7
Schedule 2 - Diarrheal Disease Control.....	8 - 9
Schedule 3 - Immunization.....	10 - 11
Schedule 4 - Nutrition.....	12 - 13
Schedule 5 - High Risk Births.....	14 - 15
Schedule 6 - AIDS/HIV Activities.....	16 - 17
Schedule 7 - Other Health and Child Survival.....	18 - 19

Country Honduras

Project Title FY 90 Vitamin A Grant to IEF

Project Number 9380IEF.04

Name(s) of Person(s) responding to the questionnaire: Mr. John Barrows

Title(s) Child Survival/Vitamin A Coordinator Date: 11-3-91

USAID HEALTH AND CHILD SURVIVAL PROJECT QUESTIONNAIRE – FY 91

9. Percentage Attributions to Program Functions

This question should be answered in two steps. First complete Column A, and then complete Column B. This list of program functions is nearly compatible with the "Activity Codes" in the Agency's AC/SI system. If you are reporting attributions in this questionnaire which are different from those reported in the FY 1993 ABS, please note the reason for the discrepancy. The "AC" code corresponding to the USAID Health Information System category is displayed in parentheses for each program function.

This year, the questionnaire includes a new category for **Environmental Health** which does not correspond exactly to any of the activity codes available for attribution through the AC/SI system. In this questionnaire, environmental health refers to activity encompassing those diseases and health problems caused by or aggravated by environmental degradation. Activities in the following areas pursued for specific health objectives may be attributed to **Environmental Health**: wastewater management; solid waste management; air pollution control; toxic radiological and hazardous waste management; occupational health; injury prevention and control, and food hygiene. (Water and sanitation for health and vector-borne disease control should be attributed to the codes established specifically for those activities.)

Step 1 – In Column A write the percent of the Life-of-Project authorized budget (from all USAID dollar funding accounts) that is attributable to each of the functions listed below. The percentages in Column A should sum to 100%.

Step 2 – If the project has a child survival component complete Column B. The entry in Column B should be the percentage of the entry in Column A devoted to Child Survival; for example, if 40% of the project is to Immunization/Vaccination and all of that attribution is for child survival, enter 100% in Column B.

PLEASE REVIEW THE EXAMPLE BELOW BEFORE COMPLETING THE TABLE.

EXAMPLE

	Column A Total Percent Attribution	Column B Percent for Child Survival	Complete Schedule 1 and. . .
a. Diarrheal Disease/Oral Rehydration.....(HEDD)	40%	100%	♦ Schedule 2
-	-	-	-
-	-	-	-
-	-	-	-
m. Water and Sanitation for Health.....(HEWH)	60%	20%	♦ Schedule 7
-	-	-	-
-	-	-	-
-	-	-	-
TOTAL, All Functions	100%		

↓

This means that 20% of the water and sanitation component of the project is attributed to child survival.

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USAID HEALTH AND CHILD SURVIVAL QUESTIONNAIRE – FY 91

FUNDING INFORMATION

10. What is the total USAID authorized LIFE-OF-PROJECT funding for this project or subproject (authorized dollar funds from ALL USAID funding accounts)? \$ 373,000.00
-
11. Does this project receive PL 480 funding (for example, for commodities or ocean freight). 1 - Yes → ANSWER ITEM 12 AND 13
 2 - No } SKIP NOW TO ITEM 14
 9 - Don't Know }
-
12. In the spaces provided, indicate the total PL 480 funding received by the project or subproject during FY 91 (Oct. 1, 1990 to Sept. 30, 1991).
- | | AMOUNT |
|--------------------------------------------------------------------------|----------|
| a. PL-480, Title I.....▶ | \$ _____ |
| b. PL-480, Title II (including the value of food and monetization).....▶ | \$ _____ |
| c. PL-480, Title III.....▶ | \$ _____ |
-
13. Please describe briefly how the PL 480 funding was used in the project during FY 91. (Use separate sheet if necessary).

14. Activities Involving the Private Sector of the Host Country
- a. What type(s) of initiatives to stimulate or support the local private sector are a part of this project?
 (CIRCLE ALL THAT APPLY) n/a
- 1 – Private production of health care goods or commodities.

2 – Assistance to privatize public health programs or services.

3 – Assistance to regulate private sector health services or commodity production and distribution.

4 – Training of private sector health care providers.

5 – Involvement of for-profit businesses in project activities.

6 – Other _____
 (Please specify)
- b. Of the total USAID Life-of-Project funding, estimate the percentage for the activities circled in question 16-a. 0 %

*Codes for "Source": DC: Data Collection System; BG: Best Guess; DK: Don't Know

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USAID HEALTH AND CHILD SURVIVAL QUESTIONNAIRE – FY 91

HIGHLIGHTS

19. The primary uses of project highlights are for Congressional and other reporting. Please take a few minutes to make your project come alive for that reporting. Lively descriptions of specific project activities from FY 91 enhance the likelihood that your project will be described in reports such as the annual Report To Congress on Child Survival. Use the examples below as starting points for your description. (Attach additional sheets if necessary.)
- a. **Significant Success Stories:** (Example: Involving a locally based firm with expertise in social marketing strengthened the demand for ORS packets, resulting in an increase in the ORT USE RATE from 10% in 1990 to 25% in 1991...)
 - b. **Lessons Learned:** (Example: An operations research study showed that one incentive to continuing participation in the formal health sector was a "successful" first encounter; therefore, health workers were trained to spend extra time with new clients...)
 - c. **Anecdotes:** (Example: During a visit to a remote village, the young daughter of the village chief interrupted her mother to explain the proper technique for preparing ORS. This reflects the effect of training students in the use of ORS...)
 - d. **Policy Change:** (Example: Data from a major survey showed a shift in dietary practice to less nutritious foods leading the government to modify its pricing policy...)
 - e. **Relation to Country Programs/Strategy:** (Example: The project's major accomplishment is strengthening of the MOH's Family Health Division. In addition to the development of a strong financial control and accounting system, the project supported supervisory training which has facilitated the integration of services in health centers...)

20. Because photographs can often communicate important concepts to busy decision makers much more quickly than words, can you include **photographs** to supplement the above text? (If yes, please include credit/caption information, including the location and year of the photo on a separate sheet and place picture, slide, or negative in an envelope.) **Do not write on photos.**

Photographs included? 1 - Yes (2) No

Schedule 1 DEMOGRAPHIC CHARACTERISTICS/PVO SCHEDULE

(Continued)

1 - 6 Is the population served living primarily in an urban or rural environment? (CIRCLE ONE)

1 - Primarily urban
(If project serves primarily urban population or peri urban, please describe strategies employed).....▶

2 - Primarily rural

3 - Mixed

4 - Don't know

Population-based registration system that is maintained by Community Health Volunteers

1 - 7 If you use a demographic data collection system, please describe how data are collected and analyzed.

CHV's register all households with children under five years old and pregnant women. Information is abstracted from registers by Nurse Supervisors on a monthly basis. Reports are summarized by Nurses for submission to the Project Coordinator.

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Schedule 2 DIARRHEAL DISEASE CONTROL

(Continued)

STRATEGIES

2 - 9	During FY 91, did the project sponsor, promote or participate in any of the following strategies or activities designed to prevent or treat diarrheal diseases or dehydration? (PLEASE CIRCLE A RESPONSE FOR EACH OF THE STRATEGIES LISTED BELOW.)	YES Substantial Activity	YES Minor Activity	NO	DON'T KNOW
	a. Free distribution of ORS packets through the public sector.....	1	2	3	9
	b. The selling of ORS packets through the public sector.....	1	2	3	9
	c. Marketing of ORS packets through commercial outlets or private health care providers.....	1	2	3	9
	d. Promotion of sugar/salt solution prepared in the home.....	1	2	3	9
	e. Promotion of other home-based solutions.....	1	2	3	9
	f. Promotion of continued breastfeeding during diarrhea.....	1	2	3	9
	g. Promotion of other appropriate feeding during and after diarrhea.....	1	2	3	9
	h. Hygiene education.....	1	2	3	9
	i. Improved water or sanitation.....	1	2	3	9
	j. Modification of curriculum in medical or nursing schools.....	1	2	3	9

TECHNICAL ASSISTANCE

2 - 10	During FY 91, did the project provide technical assistance for improving diarrheal disease control programs? (CIRCLE ONE)	1 - Yes, Substantial Activity 2 - Yes, Minor Activity	3 - No 9 - Don't Know
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CHILD SURVIVAL INDICATORS

2 - 11	What is the ORT Use Rate (see the Instructions for Information on definitions) in the project area?	
	a. ORT Use Rate.....	_____ _____ *DC BG DK
	b. Date (mo/yr) data was collected.....	
	c. Source of the data used to make the estimate.....	
	d. If a data collection system was used, please describe it. If possible, please include in the description the agency responsible for the system (MOH, WHO, UNICEF), the scope of the system (national or project area specific), the permanence of the system (special study or ongoing monitoring system), the methodology of collection (sample survey, clinic-based statistics, village-based statistics), and the computational procedure (weighting in a sample, weighting of data from clinics or villages, etc.). (Attach additional sheets if necessary.)	

ADDITIONAL BACKGROUND INFORMATION

2 - 12 Please provide any other background information which would enable us to understand better the unique nature of the diarrheal disease control component of the project including a description of any activities not identified above, any specific lessons learned, any special steps taken to promote long-term sustainability, etc. (Attach additional sheets if necessary.)

***Source Codes:** DC: Data Collection System; BG: Best Guess; DK: Don't Know

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Schedule 3 IMMUNIZATION (Continued)

STRATEGIES

3-9 During FY 91, did the project sponsor, promote or participate in any of the following vaccination strategies or activities?

(CIRCLE THE CHOICE THAT MOST NEARLY APPLIES FOR EACH STRATEGY)

	YES Substantial Activity	YES Minor Activity	NO	DON'T KNOW
a. Mass Immunization Campaigns.....	1	2	3	9
b. Fixed Immunization Center(s).....	1	2	3	9
c. Mobile Vaccination Team(s).....	1	2	3	9
d. Social Marketing to Stimulate Demand.....	1	2	3	9
e. Local Production of Vaccines.....	1	2	3	9

TECHNICAL ASSISTANCE

3-10 During FY 91, did the project provide technical assistance for improving immunization programs? (CIRCLE ONE)

- 1 - Yes, Substantial Activity
- 2 - Yes, Minor Activity
- 3 - No
- 4 - Don't Know

CHILD SURVIVAL INDICATORS

3-11 a. What is the vaccination coverage rate (see instruction guide for information on definitions) in the project area?

	BCG	DPT3	Polio3	Measles	Tetanus
Percent of fully vaccinated children, 12 - 23 mos. of age...					
Date (mo/yr) data was collected.....					
Source of information (CIRCLE ONE).....	*DC BG DK				

b. If a data collection system was used, please describe it. If possible, please include in the description the agency responsible for the system (MOH, WHO, UNICEF), the scope of the system (national or project area specific), the permanence of the system (special study or ongoing monitoring system), the methodology of collection (sample survey, clinic-based statistics, village-based statistics), and the computational procedure (weighting in a sample, weighting of data from clinics or villages, etc). (Attach additional sheets if necessary.)

ADDITIONAL BACKGROUND INFORMATION

3-12 Please provide any other background information which would enable us to understand better the unique nature of the immunization component of the project including a description of any activities not identified above, any specific lessons learned, any special steps taken to promote long-term sustainability, etc. Due to the newly announced measles initiative, we are particularly interested to hear about any measles activity undertaken through this project. (Attach additional sheets if necessary.)

Source Codes: DC: Data Collection System; BG: Best Guess; DK: Don't Know

Schedule 4 NUTRITION (Continued)

TRAINING

- 4 - 4 During FY 91, were project funds committed to support training in infant and child feeding practices and/or growth monitoring? (CIRCLE ONE)
- Yes → COMPLETE ITEM 4 - 5
 2 - No } SKIP NOW TO ITEM 4 - 6
 9 - Don't Know

4 - 5 Which of the following types of people received training as a consequence of project support? (CIRCLE ALL THAT APPLY)	Infant and Child Feeding Practices				Growth Monitoring			
	YES Substantial Activity	YES Minor Activity	NO	DON'T KNOW	YES Substantial Activity	YES Minor Activity	NO	DON'T KNOW
a. Physicians	1	2	3	9	1	2	3	9
b. Nurses	1	2	3	9	1	2	3	9
c. Community Health Workers.....	1	2	3	9	1	2	3	9
d. Traditional Healers.....	1	2	3	9	1	2	3	9
e. Community Leaders and Family Members.....	1	2	3	9	1	2	3	9
f. Other	1	2	3	9	1	2	3	9

TECHNICAL ASSISTANCE

- 4 - 6 During FY 91, were project funds committed to the provision of technical assistance in support of nutrition activities? (CIRCLE ONE ANSWER)
- Yes, Substantial Activity 3 - No
 2 - Yes, Minor Activity 9 - Don't Know

CHILD SURVIVAL INDICATORS

- 4 - 7 a. What is the rate of malnutrition (see instruction guide for clarification of definitions) in the target group served by the project?

	Group 1	Group 2	Group 3	Group 4
Target Group.....	Children 0-11 mos.	Children 12-23 mos.	Other Child 5 (Specify)	Other (Specify)
Estimated Rate of Malnutrition, Gomez Classification.....			37%	
Date (mo/yr) of estimate.....			1991	
Source of Information (CIRCLE ONE)	*DC BG DK	*DC BG DK	*DC BG DK	*DC BG DK

- b. If a data collection system was used, please describe it. If possible, please include in the description the agency responsible for the system (MOH, UNICEF, WHO), the scope of the system (national or project area specific), the permanence of the system (special study or ongoing monitoring system), the methodology of the collection (sample survey, clinic-based statistics or village-based statistics) and the computation procedures (weighting in a sample, weighting of data from clinics or villages, etc.) (Attach additional sheets if necessary)

Project Hope monitoring system in 20 communities, survey completed in 1991.

ADDITIONAL BACKGROUND INFORMATION

- 4 - 8 Please describe any other background information which would enable us to understand better the unique nature of the nutrition component of the project including a description of any activities not identified above, any specific lessons learned, any special steps taken to promote long-term sustainability, etc. (Attach additional sheets if necessary.)

Source Codes: DC: Data Collection System; BG: Best Guess; DK: Don't Know

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Schedule 5 HIGH RISK BIRTHS

(Continued)

5 - 7	Did the project sponsor or participate in activities to promote child spacing or family planning specifically directed at one or more of the following high risk groups? (CIRCLE A RESPONSE FOR EACH CATEGORY)	YES Substantial Activity	YES Minor Activity	NO	DONT KNOW
	a. Women under age 18.....	1	2	3	9
	b. Women age 35 or older.....	1	2	3	9
	c. Women who have given birth within the previous 15 months.....	1	2	3	9
	d. Women with 3 or more children.....	1	2	3	9

TECHNICAL ASSISTANCE

5 - 8	During FY 91, did the project provide technical assistance for improving high risk birth programs? (CIRCLE ONE ANSWER)	1 - Yes, Substantial Activity 2 - Yes, Minor Activity 3 - No 9 - Don't Know
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CHILD SURVIVAL INDICATORS

5 - 9	What is the Contraceptive Prevalence Rate (see instruction guide for information on definitions) in the project area.	
	a. Contraceptive Prevalence Rate in area.....	
	b. Date (mo/yr) data was collected.....	
	c. Source of the data used to make the estimate.....	*DC BG DK
	d. If a data collection system was used, please describe it. If possible, please include in the description the agency responsible for the system (MOH, WHO, UNICEF), the scope of the system (national or project area specific), the permanence of the system (special study or ongoing monitoring system), the methodology of collection (sample survey, clinic-based statistics, village-based statistics), and the computational procedure (weighting in a sample, weighting of data from clinics or villages, etc). (Attach additional sheets if necessary.)	

5 - 10	a. Estimate the percentage of total births in your project area during the reporting period that were high risk (see definition on page 3 of instruction guide.)	_____ %
	b. Please indicate the source of the data. (CIRCLE ONE)	*DC BG DK

ADDITIONAL BACKGROUND INFORMATION

5 - 11 Please provide any other background information which would enable us to understand better the unique nature of the high risk births component of the project including a description of any activities not identified above, any specific lessons learned, any special steps taken to promote long-term sustainability, etc. Please give special attention to activities designed specifically to the identification of candidates for high risk pregnancies and any particular steps taken to avert those pregnancies. (Attach additional sheets if necessary.)

***Source Codes:** DC: Data Collection System; BG: Best Guess; DK: Don't Know

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Schedule 6 HIV/AIDS ACTIVITIES

6 - 4 The table below is to be used to summarize the scope of the HIV/AIDS activities supported under this project.

The following are guidelines to be applied for completing information in the columns in the table starting with Column A.

- Column - A. Use Activity codes listed below to describe the nature of the HIV/AIDS activities.
- Column - B. Show the percent of total AIDS activity, as reported in question 9, of the Main Schedule, attributed to each activity reported in Column A. Column B should add to 100%.
- Column - C. Estimate the percent of resources supporting research for each activity reported in Column A.
- Column - D. List the organization(s) by number from question 6 -3 on page 16 which support each activity listed in Column A.
- Column - E. Cite target population for each activity listed in Column A. Use Population Code(s) listed below as appropriate for each activity.
- Column - F. Indicate by Y or N (Yes or No) whether activities listed in Column A are community-based with target community involvement in the design, implementation, and /or evaluation of the activities.
- Column - G. Please cite the number of individuals reached by prevention efforts in each activity area and indicate in Column H the source of the data by circling one of the the following: DC (Data Collection), BG (Best Guess), or DK (Don't Know).

A Activity	B % of AIDS Attribution	C % Research	D Organizations Supported	E Population Targets	F Comm. Based	G Nos. Reached FY91	H Data Sources
BTS							DC BG DK
CSP							DC BG DK
CPD							DC BG DK
HSV							DC BG DK
PNR							DC BG DK
STD							DC BG DK
PDM							DC BG DK
OAI							DC BG DK
	100%						

ACTIVITY CODES:

Blood Transfusion Screening..... BTS
 Condom Supply..... CSP
 Condom Promotion and Distribution..... CPD
 HIV Surveillance..... HSV
 Partner Number Reduction..... PNR
 STD Diagnosis Treatment Services..... STD
 Policy Dialogue/Modelling..... PDM
 Other..... OAI
 (Please specify)

TARGET POPULATION CODES:

General Public..... GPU
 Children (0-8 years)..... CHI
 Youth (9-14 years)..... YOU
 Female Sex Workers..... FSW
 Male Sex Workers..... MSW
 Other Women at Risk..... OWR
 Other Men at Risk..... OMR
 IV Drug Users..... IDU
 Clinic/Hospital-based
 Health Service Providers..... HSP
 Traditional Healers..... TRH
 Other Service Providers..... OSP
 Community Leaders..... CML
 Other..... OTH
 (Please specify)

6 - 5 What percentage of the condoms being supplied by USAID are used for AIDS prevention (rather than family planning)? _____ %

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Schedule 7 OTHER HEALTH AND CHILD SURVIVAL ACTIVITIES

(Continued)

PLEASE ANSWER 7-7 ONLY IF YOU CIRCLED "4 - Malaria" IN RESPONSE TO ITEM 7-1.

7-7 Malaria Strategies.

During FY 91, did the project sponsor, promote or participate in any of the following strategies or activities for the purpose of malaria control?

(PLEASE CIRCLE A RESPONSE FOR EACH OF THE STRATEGIES LISTED BELOW.)

	YES Substantial Activity	YES Minor Activity	NO	DONT KNOW
a. Malaria surveillance and/or treatment.....	1	2	3	9
b. Surveys for chloroquine sensitivity/resistance.....	1	2	3	9
c. Mosquito control:				
1. Against adult mosquitos.....	1	2	3	9
2. Against larvae.....	1	2	3	9
3. Environmental modification..... (including source reductions)	1	2	3	9
d. Public education to promote:				
1. Anti-malarial treatment.....	1	2	3	9
2. Anti-mosquito measures.....	1	2	3	9
3. Impregnated bednets.....	1	2	3	9
4. Other _____..... (Please Specify)	1	2	3	9

TECHNICAL ASSISTANCE

7-8 During FY 91, did the project provide technical assistance in any of the types of interventions circled in item 7-1?

1 - Yes → COMPLETE ITEM 7-9
 ② - No } SKIP NOW TO ITEM 7-10
 9 - Don't Know

7-9 For each type of intervention circled in item 7-1 above, indicate the level of technical assistance provided. (CIRCLE ONE RESPONSE FOR EACH INTERVENTION)

	YES Substantial Activity	YES Minor Activity	NO	DONT KNOW
a. Acute Respiratory Infection.....	1	2	3	9
b. Health Care Financing.....	1	2	3	9
c. Water and Sanitation.....	1	2	3	9
d. Malaria.....	1	2	3	9
e. Maternal Health.....	1	2	3	9
f. Elderly/Adult Health.....	1	2	3	9
g. Other _____..... e.g. ophans, etc. (Please Specify)	1	2	3	9

ADDITIONAL BACKGROUND INFORMATION

7-10 Please provide any other background information which would enable us to understand better the unique nature of any or all of the other health and child survival components of the project including a description of any activities not identified above, any specific lessons learned, any special steps taken to promote long-term sustainability, etc. (Attach additional sheets if necessary.)

Project provides basic ocular training (primary eye care) to project auxillary nurses. A primary health care component (recognition and referral) is included in the training of Community Health Volunteers. In the four area health centers, doctors and other professional health personnel receive ocular training. An outpatient clinic is established in one health center which is operated by a project part-time ophthalmologist.

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