Mercy Corps (MC)
Proyecto Aldea Global (PAG)

Child Survival Project
"Results that Last"

FINAL EVALUATION

Prepared by:

Lynn Johnson
September 30, 2001

ACKNOWLEDGEMENTS

I would like to thank Chet Thomas and Joel Durón and the PAG staff in Tegucigalpa and Siguatapeque for their hospitality, efficiency and cooperation that made my work both enjoyable and productive.

I would also like to express my appreciation to Guadalupe Solís, Raúl Medina, Paula Vasquez and Reiner Bonilla for their invaluable assistance and insights during the field visits and final debriefings.

My appreciation goes out to Dr. Javanshir Hajiyev, of Mercy Corps Azerbaijan, who participated in all aspects of the evaluation, and made valuable contributions during the field visits and analysis workshop.

Special thanks are in order to the CS Extentionists for their participation and valuable contributions in the planning sessions and analysis workshop, and to Nely Suyapa Mejia for her efficiency and attention to details in the preparation of documents and in general excellent overall support.

The effectiveness of the evaluation process could not have been possible without the complete cooperation and interest of the volunteer health promoters, mothers, fathers, *Patronatos*, MOH personnel and municipal representatives we interviewed.

Lynn Johnson
Tegucigalpa, 30 September 2001

ACRONYMS

AIN	*Atención Integral a la Niñez* (Integrated Child Care)
ARI	Acute Respiratory Infection
ASHONPLAFA	National Association of Family Planning
CESAR	Rural Health Center (with an auxiliary nurse)
CESAMO	Health Center (with a physician)
CS	Child Survival
CDD	Control of Diarrheal Disease
ENESF	National Survey of Epidemiology and Family Health
FP	Family Planning
HIS	Health Information System
HQ	Headquarters
MCH	Maternal and Child Health
MOH	Ministry of Health
NGO	Non-Governmental Organization
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PAG	*Proyecto Aldea Global* (Project Global Village)
VHP	Volunteer Health Provider
WHO	World Health Organization

TABLE OF CONTENTS

A. Summary

A.1 Program Description

The overall goal of Mercy Corps/PAG CS Project ***Results That Last*** is to decrease maternal and infant morbidity and mortality in the project area through: 1) Improving the quality of care and routine use of protocols, nationally and internationally accepted, for institutional management of illnesses that are main causes of child deaths, and 2) Providing sustainable access at the community level to high quality child survival interventions in order to reduce maternal and infant mortality. As a direct result of the completion of the goals and objectives for this project, the technical and institutional capacities of Mercy Corps and PAG related to Child Survival (CS) will be strengthened.

The target area for the project consists of 162 communities in the northern half of the Comayagua department, pertaining to the MOH Sanitary Region II, located in the central region of Honduras. Approximately 7,500 children age 0-23 months are beneficiaries of project interventions. Project intervention include: pneumonia case management (35%), control of diarrheal disease (30%), prevention and management of nutritional and Vitamin A deficiencies (20%), and promotion of child spacing (15%). General project strategies include: phase-in of interventions by geographic zone, implementation of CS activities jointly by PAG staff and MOH auxiliary nurses, provision of medicines for revolving funds, service provision by volunteer health providers (VHPs), integration of health and other development strategies in the communities, and implementation of a fee for service system at the community level.

A.2 Program Accomplishments[1]

Key achievements of ***Results That Last*** include the implementation of child survival activities in 159 communities, support of community health activities by 65 *Patronatos* and 277 VHPs, joint implementation of activities is on-going with 15 MOH health centers with staff trained in IMCI and quality of care. Over 35,000 women and children are benefiting from primary health care interventions.

Important results in the area of sustainability include the participation of municipal governments and *Patronatos*, the existence of 44 community medicine chests (CMC) supplied locally by Regional Supply Points, and increased MOH technical support via a monthly meeting for VHPs at health centers. The CS Project has developed an excellent relationship with MOH Area and Sector health services, and progress has been made in strengthening quality of care at health facilities. Capacity building for Mercy Corps and PAG has been enormous, and both institutions are making valuable contributions to child survival locally and internationally.

[1] Comparison of baseline and final KPC results was done using a consolidated data sheet prepared by PAG, which combined two baseline assessments. The baseline survey was done in two phases: Humuya (1998) and Lajas (1999). The consolidated results for the impact indicators appear under the heading KPC 1999 in the chart in section B.1 of this report. Information from the second survey can be found in Annex 1 of the Mid-Term Evaluation Report (October 1999). Comparisons of indicators not shown in the table in Section B.1 are made based on the 1999 data. The final KPC results are included in Attachment D of this Final Evaluation Report.

A.3 Highlights

Pneumonia Case Management

Data from the final KPC indicate that 84% of mothers seek appropriate medical treatment for children with signs of pneumonia, an increase of 34% as compared to the baseline, and far exceeding the Project's goal of 60%. Knowledge of chest in-drawing as a danger sign increased to 38%, and recognition of rapid breathing to 79%, exceeding the baseline levels by 34% and 22% respectively. Significant improvements were made in the quality of care for pneumonia case management. By September 2001, the majority of health workers (94%) had been trained in pneumonia case management, close to two-thirds (63%) took a correct history, while one third (32%) performed the physical exam and assessed cases of acute respiratory infections correctly. Pneumonia cases that were given standard management increased from 0% to 33%. Seventy percent of mothers received information regarding home care.

Control of Diarrheal Disease

The 2001 KPC Survey shows a 21% increase for mothers who know at least one symptom of dehydration. ORT use has increased by 23% during episodes of diarrhea. Mothers' behavior during the recent diarrhea episode regarding continuation of breastfeeding has increased by 11%. The percentage of mothers who have access to litrosol has increased from 72 to 94%.

Data regarding the type of treatment given to children with diarrhea in the two weeks prior to the survey indicate that 55% of mothers used litrosol, a significant increase from the baseline figure of 30%. It is also interesting to note that use of anti-diarrheal medication diminished from 72% to 42%. Mothers who sought help during the diarrhea episode increased from 57% to 67%, and the percentage of mothers who sought assistance from VHPs increased by one third (from 6.6% to 40%). Mothers who could name at least one danger sign for dehydration increased from 64% to 83%. (1999 and 2001 KPC results)

Nutrition and Micronutrients

Data from the final KPC survey show high levels for the key project indicators, as follows: immediate breastfeeding after delivery (72%), knowledge of complementary feeding (88%), growth monitoring (82%) and provision of two doses of Vitamin A (77%). Although exclusive breastfeeding is still not optimal, the final result (55%) represents an improvement of 35% over the life of the project.

Family Planning

A comparison of the 1999 and 2001 KPC surveys indicates that women's knowledge of at least three modern contraceptive methods increased by 43%. Knowledge of Depo-Provera increased from 15% to 67%, of pills from 68% to 82%, and condoms from 40% to 67%. Although 78% of mothers stated that they did not want to have another child in the next two years, only 26% claimed to use a family planning method. The methods most frequently mentioned by actual users were Depo-Provera, pills, IUDs and sterilization. Use of Depo-Provera increased from 3%

to 33% and use of pills from 18% to 24%. Use of IUDs did not change significantly, and use of rhythm decreased from 28% to 7%. The findings indicate a trend towards more modern methods, along with increased knowledge

A.4 Conclusions

The Mercy Corps/Proyecto Aldea Global CS Project ***Results That Last*** has achieved its objectives, despite a series of difficulties, including Hurricane Mitch. Implementation strategies were effective in the four project interventions, and were based on sound technical and managerial practices. Results from synergistic initiatives in child survival, infrastructure, agro-ecology, water, sanitation and governance (civil society) are making significant inroads towards true integrated development in the Comayagua Region of Honduras. The challenge facing Mercy Corps and PAG at this juncture to insure sustainability of the key project interventions over the medium term, and continue the implementation of integrated development strategies over the long term.

B. Assessment of Results and Impact of the Program

B.1 Summary of KPC Results

PROJECT OBJECTIVES	Goal	KPC 1999	KPC 2001
Pneumonia Case Management (35% Effort)			
1. Increase the number of mothers seeking appropriate medical treatment for their children age 0-23 months with signs of pneumonia	60%	50%	84%
2. Increase knowledge among mothers in the signs and symptoms of pneumonia for (a) chest in-drawing and for (b) rapid breathing	a. 20%	4%	38%
	b. 70%	57%	79%
3. Improve the quality of care for pneumonia in 14 of 17 MOH facilities serving the project[2]			
Diarrhea Case Management (30% Effort)			
1. Increase the use of ORT (litrosol, home-mix, cereal based liquids) during episodes of diarrhea in children age 0-23 months	60%	46%	69%
2. Increase the number of children who receive the same amount or more food during episodes of diarrhea, for children already receiving solid foods	71%	53%	62%
3. Increase the number of children age 0-23 months who receive the same or more liquids during episodes of diarrhea, for children already receiving liquids	85%	69%	80%
4. Increase the number of mothers who recognize at least one symptom of dehydration.	75%	62%	83%
5. Increase the number of mothers who have access to ORS (litrosol) in their community.	85%	72%	94%
Nutrition/Micronutrients (20%)			
1. Maintain the level of breastfeeding for mothers in the first hour after birth.	67%	66%	72%
2. Increase exclusive breastfeeding for children under 6 months of age.	35%	20%	55%
3. Increase the number of mothers who have knowledge that their children age 6-23 months should receive solid foods	65%	52%	88%
4. Increase the number of children age 0-23 months weighed at least twice in the last 6 months	80%	17%	82%
5. Increase the number of children age 12-23 months who receive two doses of Vitamin A	60%	44%	77%
Family Planning (15%)			
1. Increase modern contraceptive use among women who do not desire children in the next two years	25%	18%	24%
2. Increase women who know of at least 3 modern contraceptive methods	40%	23%	66%

[2] See Section B.2.b for a summary the results of the two Health Facility Assessments.

B.2 Results: Technical Approach

B.2.a Overview

The overall goal of Mercy Corps/PAG CS Project ***Results That Last*** is to decrease maternal and infant morbidity and mortality in the project area through: 1) Improving the quality of care and routine use of protocols, nationally and internationally accepted, for institutional management of illnesses that are main causes of child deaths, and 2) Providing sustainable access at the community level to high quality child survival interventions in order to reduce maternal and infant mortality. As a direct result of the completion of the goals and objectives for this project, the technical and institutional capacities of Mercy Corps International and PAG related to Children Survival (CS) will be strengthened.

The target area for the project consists of 162 communities in the northern half of the Comayagua department, pertaining to the MOH Sanitary Region II, located in the central region of Honduras. Approximately 7,500 children age 0-23 months are beneficiaries of project interventions. Project intervention include: 1) pneumonia case management (35%), 2) control of diarrheal disease (30%), 3) prevention and management of nutritional and Vitamin A deficiencies (20%), and 4) promotion of child spacing (15%). Following is a brief description of the general project strategies.

Phase-in of Interventions by Geographic Zones

Implementation of the CS interventions began in Humuya and then moved to Lajas. Activities in the four interventions are implemented simultaneously. The MOH model of Integrated Child Care (AIN-Atención Integral a la Niñez), from the community IMCI approach, serves as the entry point for the other CS interventions. Community activities are centered around a monthly growth monitoring session that includes educational topics on nutritional improvement, control of diarrheal disease, pneumonia case management and family planning methods. Mothers with children who are not gaining weight are scheduled for home visits by Village Health Providers (VHPs). During the home visits the VHP provides counselling and makes an agreement with the mother for specific behavior change.

Joint Activities by PAG Supervisors and MOH Auxiliary Nurses

This strategy calls for PAG supervisors to continuously accompany Rural Auxiliary Nurses (RANs) from MOH health centers[3]. The Project will give formal refresher training to RAN's to improve technical skills, supervision techniques, and quality of care. The premise is that joint implementation of child survival activities on behalf of the PAG Extensionist and the MOH auxiliary nurse will strengthen the linkage between the community and the health system. The mutual relationship between PAG and the RAN should provide the technical tools needed to conduct, monitor, and supervise quality care for the CS interventions. PAG staff will provide support and supervision to assure quality service provision. Professional physicians and nurses based at the CESARs and CESAMOs will receive refresher training in key project interventions.

[3] In Honduras there are two types of rural health centers, a CESAMO is staffed by a physician and a dentist, in addition to nursing staff, while a CESAR is staffed by a single rural auxiliary nurse who has had two years of training (one year in a clinical setting and one year of in-service at a rural health center).

Provision of Medicines for Revolving Funds

The Project will help fifteen MOH health centers to increase the inventories of medicines in their regular inventory. A community medicine chest (CMC) will be made available in communities distant from health centers. This community medicine chest will function through a revolving fund to assure sustainability.

Service Provision by Volunteer Health Providers at the Village Level

This project will use the community structures, specifically the health committees, to recruit volunteer health providers (VHPs) to work in that community. Volunteer personnel will carry out simple preventive, assessment and treatment for common health problems. They will be trained by the project and supported with on-going technical assistance visits to them in their communities by RANs and PAG supervisors.

Integration of Health and Other Development Strategies in the Community

PAG centers its development efforts on a concept titled "Traditional Farm Improvement". The conceptual framework involves actions at three levels: government, the private sector, and civil society. Three key principles enhance the effectiveness and sustainability of PAGs interventions: 1) resolution of conflicts by peaceful means, 2) transparent administrative procedures and management of funds, and 3) citizen participation in decision making.

The CS Project will integrate health activities with complementary development activities in the areas of agricultural production, income generation, sanitation and municipal strengthening and governance. Community participation in different areas will empower people to take action on behalf of their own development and that of future generations. Specific strategies include: 1) Expressing appreciation for the work contributed by the community, 2) Providing health training events for the community governing bodies (*Patronatos*), 3) Strengthening community organizations on a regional level by establishing a regional development committee, and 4) Providing support for the implementation of infrastructure, agro-ecology and small enterprise projects.

Fee for Service

The strategy that is relatively new in the project and has the capability of being useful on a wider scale is that of the VHP's charging for services. This approach is not totally new, since TBAs have traditionally charged for their services and been well accepted. However, the official biomedical health services have not used this approach. The MOH is fully supportive of the strategy; in fact it is included in future MOH plans, and the MOH sees this as a good opportunity to test the strategy.

B.2.b. Progress Report by Intervention Area

PNEUMONIA CASE MANAGEMENT

(i) Comparison of Baseline and Final Evaluation Surveys

PROJECT OBJECTIVES	Goal	KPC 1999	KPC 2001
Pneumonia Case Management (35% Effort) 1. Increase the number of mothers seeking appropriate medical treatment for their children age 0-23 months with signs of pneumonia	60%	50%	84%
2. Increase knowledge among mothers in the signs and symptoms of pneumonia for (a) chest in-drawing and for (b) rapid breathing	a. 20%	4%	38%
	b. 70%	57%	79%

Summary of Results from Baseline and Final Health Facility Assessments for Quality of Care in Pneumonia Case Management

Indicator	Baseline Dec 1999	Final Sep 2001
Improve the quality of care for pneumonia in 14 of 17 MOH facilities serving the project		
a. Health workers who receive training in pneumonia case management	47%	94%
b. Correct assessment of pneumonia cases by health workers	2%	32%
c. Pneumonia cases treated that received standard case management		
d. Caretakers who receive adequate counseling about appropriate home care	0%	33%
	0%	12%

Data from the final KPC indicate that 84% of mothers seek appropriate medical treatment for children with signs of pneumonia, an increase of 34% as compared to the baseline, and far exceeding the Project's goal of 60%. Knowledge of chest in-drawing as a danger sign increased to 38%, and recognition of rapid breathing to 79%, exceeding the baseline levels by 34% and 22% respectively. All project targets were met for these indicators, showing that intervention strategies were effective.

The improvement in quality of care for pneumonia was an important part of the Project's strategy for improving case management. Two health facility assessments (HFAs) were undertaken, one in

December 1999 and another in September 2001. Results from the first HFA showed that less than half of health workers (47%) had received training in pneumonia case management, few health service providers had adequate knowledge of standard protocols or counseling messages for home care, correct history was taken in 9% of the cases, the physical exam was adequate in 4% of cases observed, correct assessment of ARI cases was 2%, the one pneumonia case observed did not receive standard management, and no caretaker received adequate counseling about appropriate home care. (See Attachment E for a the text of the September 2001 report, which includes a comparison of baseline and final indicators.)

The results of the first HFA were shared and discussed with the MOH, and an action plan was prepared to address the areas that needed improvement. The plan called for workshops on IMCI for MOH personnel and follow-up visits in MOH Areas 1 and 3, training and monitoring of VHPs who provide PCM at the community level and manage Medicine Chests, training in motivation and client centered quality of service, and provision of supplies, medicines and wall charts to health centers. Significant improvements were made as a result of these activities. By September 2001, the majority of health workers (94%) had been trained in pneumonia case management, close to two-thirds (63%) took a correct history, while one third (32%) performed the physical exam and assessed cases of acute respiratory infections correctly. Pneumonia cases that were given standard management increased from 0% to 33%. Seventy percent of mothers received information regarding home care.

(ii) Factors Affecting Achievement of Program Objectives

The joint focus by the CS Project and the MOH to improve the quality of care at health centers, coupled with more intense training and monitoring of community case management and referrals were key factors in the achievement of the PCM objectives.

In October 2000, PAG sponsored IMCI training for14 auxiliary nurses from health centers in the CS Project area. In February 2001, RANs were trained in motivation and client centered service provision, followed by a quality of care course in July of the same year. This resulted in an agreement between the Project and 15 auxiliary nurses to work towards nine quality indicators. These include: use of a drug inventory system, give the appropriate medication for the presenting case, orient patients regarding correct use of medications, provide complete information to patients, register data for the information system on a daily basis, organize and clean equipment and furniture on a daily basis. In addition, the project trained VHPs in the community management of pneumonia.

The achievement of PCM objectives was enhanced by the establishment of rotating medicine funds managed by VHPs trained in standard case management. This strategy has increased access to antibiotics in communities located far from health centers, and provides an alternative to families when the health center is closed at night and on weekends. Wall charts are posted at the CMC to assist VHPs to provide correct diagnosis and treatment, while the use of chronometers helps VHPs assess rapid breathing rates. Quality at the community level was strengthened through the implementation of strict procedures prior to authorizing VHPs to distribute antibiotics. Requirements included attendance at a five day PCM training, passing a written exam on recognition and treatment protocols, and demonstrating competency to correctly

fill out information system forms. Those who did not pass were not allowed to receive or distribute medicines. Re-supply of medications was only provided to those who correctly filled in the information systems forms.

PAG organized a Regional Medicine Store in Siguatapeque to re-supply medicines locally. This "Store" supplies three Regional Supply Points, and these "Points" sell medications to authorized CMC volunteers. A Supervisory Committee composed of all stakeholders supervises the Regional Supply Points. Stakeholders include representatives from the municipal government, the local community board (*Patronato)*, the local health center (MOH), PAG, and selected VHPs who oversee medicine chests. PAG expects the Regional Supply Points to be self-sustainable, as medicines are sold at affordable prices, yet high enough to cover operation expenses.

The effectiveness of the PCM intervention was enhanced by community prevention and front line treatment provided by 277 VHPs in 159 communities, the existence of 44 CMCs to improve access to consultations and medicines, distribution of chronometers to each community, and improved quality of care and referral systems at MOH health centers. During the field visits over 100 mothers were interviewed in 15 communities. A majority of the mothers said that their new knowledge of danger signs for pneumonia brought about major changes in home management and care seeking. (See Attachment B for a summary of the final evaluation interviews.)

Information from the Project HIS indicates that 71% of VHPs participate in monthly meetings at rural health centers where they receive guidance and supervision from the RAN. This mechanism has served to provide on-going training and supervision in PCM, especially regarding correct diagnosis and treatment. Visits to health centers during the final evaluation showed that the auxiliary nurses were implementing the nine agreed upon behaviors to improve the quality of care. This was corroborated by the group interviews with mothers, all of which mentioned receiving good treatment from health centers.

The Project received a consultation from Bill Weiss in April 2001, to review progress towards quality of care for pneumonia case management in health centers operated by the MOH. The action plan and the majority of the actions taken to improve PCM at both the health center and community level were direct results of his recommendations.

(iii) Contributing Factors for Objectives Not Fully Achieved

The effort to improve quality of care for pneumonia case management started late in the project (Hurricane Mitch and staff turnover). The MOH is responsible for training and quality care based on the IMCI model, which includes PCM. Although the Project has provided some training, overall progress is dependent on MOH processes, their schedule of activities and priorities. Although the supervision system for health centers is mandated by the MOH, follow-up for IMCI and PCM only occurs when the CS Project sponsors a round of joint supervisory visits to health centers. Although the CMC strategy is an initiative promoted by the MOH at the national level, there is limited capacity at both the regional and local levels to take responsibility for medicine chest supervision. The MOH is the only permanent institution in the communities that is capable of fulfilling this role.

In general there has been a lack of follow-up to reinforce new knowledge and skills for project staff, RANs and VHPs. Supervision for PAG Extensionists and VHPs in PCM was not yet in place at the time of the MTE (October 1999). Although improvements were made at the community level, the report of the technical visit made by Bill Weiss (April 2001) indicated little structured supervision of case management procedures.

Originally VHPs were to receive technical supervision from RANs. However, the nurses rarely visit the CMCs and do not generally supervise the VHPs due to logistic and time constraints. Each month VHPs gather at the health center to present reports and receive supplies, however these contacts are not sufficient to detect problems in diagnosis and treatment at the community level. Conversations with VHPs during community visits indicated an emphasis on the use of the chronometer for diagnosis, however there was confusion regarding correct treatment. Some VHPs were prescribing antibiotics for upper respiratory infections.

Community management of CMCs is part of the Project's sustainability strategy and an important aspect of improving access at the community level. However, there are several weaknesses inherent in this strategy, which are not easily overcome in the short term. The following constraints beset many of the 44 Medicine Chests currently in operation: community dependency on a permanent medicine supply through PAG, lack of the community involvement in the chest's functioning and management, and lack of technical support by the MOH.

Interviews with VHPs in charge of CMCs, and the CS team's analysis of the strategy at the Results Workshop identified the following weaknesses: 1) *Patronatos* are not constant in monitoring the CMCs, 2) there is little coordination between the RAN and the *Patronatos*, 3) use of the information system is inadequate, and 4) there is no significant incentive for the VHP, other than community service. Other aspects which require improvement include: use of wall charts and the chronometer by the VHP to assist him/her to make a correct diagnosis, registration and reporting of cases to the health center, use of referral forms, reception of counter-referrals, explanations to patients regarding dosage, time and duration of medication usage.

(iv) Lessons Learned

- Continual technical supervision is required if VHP's are to provide community based case management correctly.

- Regular MOH supervision and follow-up are crucial, if health center personnel are to implement clinical IMCI protocols and improve the quality of care for pneumonia case management.

- Working within the MOH structure is more sustainable, although slower to show results. The project can influence MOH processes through joint consultation meetings, materials development, printing of forms and charts, and shared field work.

(v) Special Outcomes, Unexpected Successes, Constraints

The most innovative strategy of the CS Project is the sustainability plan for the CMCs. The three main components of the strategy are in progress: 1) community participation in chest management and operation, 2) community responsibility to insure operation of CMCs at the local level through Regional Supply Points; and 3) partnering with the MOH to provide continued technical assistance and monitoring/supervision of the chests once the CS Project ends. While there are some constraints to be overcome, there is excellent potential for cost recovery by the CMC, the Regional Supply Points, and potential for the VHP to earn an amount that would constitute a real incentive.

(vi) Future Applications of Lessons Learned

- Organize a discussion on the sustainability of CMCs in a pilot health area, with the participation of all the Health Sector RANs to share the results of the final evaluation and to make agreements regarding technical oversight, training, supervision, referrals, management of monthly meetings, and the RAN-*Patronato* relationship.

- Obtain the RAN's point of view regarding the medicine chest supervisory guide designed by the CS Project and make realistic agreements for supervisory visits and use of the guide. Since interactive supervision sessions have not been feasible for many of the RANs, a new strategy needs to be developed and turned over to the MOH during the next two years of the CS Project extension.

- Continue to implement the recommendations made by Bill Weiss, as follows:
    1) Strengthen the involvement of *Patronatos* in health activities and support for volunteers;
    2) Follow-up for MOH Health Centers in quality assurance practices should be provided by MOH Area Health Teams;
    3) Improve IMCI supervision system and track indicators;
    4) Improve data analysis at the health center and during monthly meetings with VHPs;
    5) Monitor volunteer performance at the monthly meeting;
    6) Expand and improve the CMC with better supervision and on-going training.

CONTROL OF DIARRHEAL DISEASE

(i) Comparison of Baseline and Final Evaluation Survey

PROJECT OBJECTIVES	Goal	KPC 1999	KPC 2001
1. Increase the use of ORT (litrosol, home-mix, cereal based liquids) during episodes of diarrhea in children age 0-23 months	60%	46%	69%
2. Increase the number of children who receive the same amount or more food during episodes of diarrhea, for children already receiving solid foods	71%	53%	62%
3. Increase the number of children age 0-23 months who receive the same or more liquids during episodes of diarrhea, for children already receiving liquids	85%	69%	80%
4. Increase the number of mothers who recognize at least one symptom of dehydration.	75%	62%	83%
5. Increase the number of mothers who have access to ORS (litrosol) in their community.	85%	72%	94%

The principal strategy for the CDD intervention is education of mothers to provide adequate home management of diarrhea cases. Messages relate to the use of ORS, home available liquids and proper nutrition during diarrhea episodes, avoiding self-medication, recognition of danger signs, and seeking of further treatment. Project Extensionists and VHPs are trained in correct diagnosis and treatment. They educate mothers on control of diarrhea, including the recognition of danger signs for dehydration, correct dietary management, referral of severe cases, and distribution of ORS packets. VHPs distribute ORS packets free of charge in their communities, and provide demonstrations of proper preparation and use during community AIN meetings. Referral services are provided by MOH health centers and referral hospitals. The MOH has prioritized the community need for clean water. PAG water and sanitation projects promote clean water and sanitation (e.g., protecting wells, latrine construction) in many of the CS Project communities.

(ii) *Factors Affecting Achievement of Program Objectives*

The 2001 KPC Survey shows a 21% increase for mothers who know at least one symptom of dehydration. ORT use has increased by 23% during episodes of diarrhea. Mothers' behavior during the recent diarrhea episode regarding continuation of breastfeeding has increased by 11%. The percentage of mothers who have access to litrosol has increased by 22%, and 94% of mothers state that it is easy to obtain litrosol in their communities.

Data regarding the type of treatment given to children with diarrhea in the two weeks prior to the survey, indicate that 55% of mothers used litrosol, a significant increase from the baseline figure of 30%. It is also interesting to note that use of anti-diarrheal medication decreased from 72% to 42%. Mothers who sought help during the diarrhea episode increased from 57% to 67%, and the percentage of mothers who sought assistance from VHPs increased by one third (from 6.6% to

40%). Mothers who could name at least one danger sign for dehydration increased from 64% to 83%. (PAG KPC 1999 and 2001)

There are 277 VHPs active in educational and distribution activities for the CDD component. Education regarding hygiene, treatment of drinking water, and recognition of danger signs for dehydration was given at community AIN meetings on a monthly basis. Regarding purification of water, 96% of mothers either chlorinate (43%) or boil (43%) their drinking water. PAG installed water purifiers in all the health centers in the CS Project area.

Communities received orientation regarding environmental health, especially after Hurricane Mitch. Community education given by project staff is based on participatory methods, and is complemented by demonstrations of ORS preparation. Educational activities include information on prevention of diarrhea, the relationship between child nutrition and diarrheal disease, and the importance of using ORT and not antibiotics or antidiarrheal medicine.

IMCI training helped health staff to adequately treat cases of diarrhea. Coordination between VHPs and RANs regarding referral and follow-up of cases was enhanced by the installation of a radio system at the MOH health centers in the project area. ORS was available during the period of Project implementation through VHPs, CMCs and health centers.

(iii) Contributing Factors for Objectives Not Fully Achieved

The one goal not met for the CDD intervention was to increase the number of children who receive the same amount or more food during episodes of diarrhea, for children already receiving solid food. The target was 71%, and while the final KPC figure of 62% exceeds the baseline by close to 10%, complementary feeding practices need to be emphasized during the next project cycle.

A key constraint to the success of all project interventions, including CDD, is the difficulty in developing strong linkages between the MOH and the community. Some limitations include: lack of supervisory visits to the VHP, lack of joint planning of activities, poor organization and motivation at the RAN-VHP monthly meetings, lack of MOH personnel to staff some health centers, and closing of centers at night, on weekends, and whenever the RAN is absent.

Other constraints include: communities with the most cases of diarrhea are not identified and prioritized by the CS Extensionists or by the MOH, and information gathered by Extensionists in their community visits is not used for decision making regarding improved diarrhea case management. A key weakness of the MOH is the lack of rehydration equipment at most rural health centers. At the community level there has been little integration of the *Patronatos* and men in addressing prevention of diarrheal disease. There are few follow-up visits by VHPs to children with diarrheal disease, and mothers don't seek prompt attention for children with diarrhea.

(iv) ***Lessons Learned***

- Continual coordination and planning between RANs and VHPs is necessary if education, treatment and referral for the management of diarrhea disease are to be effective at the community level.
- If the monthly RAN-VHP meeting is a dynamic and motivating event, and RANs demonstrate positive attitudes towards working with and valuing their contributions, VHPs will remain active.
- The level of training that health personnel and VHPs have received directly influences the quality of care provided
- CS Project Extensionists are more effective and motivated when they are well trained, receive adequate logistical support, and when good communication exists at all levels of the PAG CS Team.
- Good orientation and counseling of mothers regarding control of diarrheal disease is a catalyst for improved home management

(v) Special Outcomes, Unexpected Successes, Constraints

Some unexpected outcomes, related to activities sponsored by other PAG projects and the MOH, have enhanced the effectiveness of the CDD component, including: 1) latrine construction, remodeling of health centers in Las Lajas, re-building and improvement of dams, and installation of water purifiers. The biggest constraint was Hurricane Mitch, which brought much destruction of roads and infrastructure, affecting safe water sources.

(vi) Future Applications of Lessons Learned

- Develop innovative approaches to strengthening the linkage between the MOH and communities in the areas of training, education, supervision and referral.
- Strengthen home visits to children who have diarrhea, and train VHPs to provide counseling and to make agreements with mothers regarding improved feeding practices and ORT.
- MOH rural health centers should be provided with rehydration equipment to adequately treat referrals of children with dehydration.

NUTRITION MICRONUTRIENTS

(i) Comparison of Baseline and Final Evaluation Survey

PROJECT OBJECTIVES	Goal	KPC 1999	KPC 2001
1. Maintain the level of breastfeeding for mothers in the first hour after birth.	67%	66%	72%
2. Increase exclusive breastfeeding of children under 6 months of age.	35%	20%	55%
3. Increase the number of mothers who have knowledge that their children age 6-23 months should receive solid foods	65%	52%	88%
4. Increase the number of children age 0-23 months weighed at least twice in the last 6 months	80%	17%	82%
5. Increase the number of children age 12-23 months who receive two doses of Vitamin A	60%	44%	77%

While there has been improvement in all of the nutrition indicators, the nutritional status of children has not changed significantly during the past two years (MOH HIS, 2001). Immediate causes of malnutrition are inadequate food intake coupled with a high prevalence of infectious diseases, particularly diarrheal disease and respiratory infections, with two-week prevalence rates of 39% and 35% respectively (KPC 2001). Contributing causes include: insufficient food; food distribution practices in the home; a lack of time to prepare frequent meals for children; poor access to health services; lack of potable water and sanitation; insufficient education and information; and inadequate breastfeeding and complementary feeding practices.

The Project's strategy to ameliorate nutritional status has been to implement the AIN (Integrated Child Care) approach, in concert with the MOH. Since the MOH only has the logistical capability to work in two communities per Health Center, PAG chose to implement the strategy in all the project communities, using MOH procedures, charts and information systems.

PAG Extentionists and VHPs were trained in the AIN methodology and in nutritional counselling based on the growth pattern of each child. Currently 74 communities are implementing the AIN weighing system with the full protocol, which includes a baseline census, weighing, charting, preparation of a summary sheet with nutrition indicators, and counselling the mother. In the remaining 85 communities, growth monitoring is done using the AIN procedures, however a baseline survey is not undertaken. In light of the improvement in project objectives, it is evident that this strategy has been extremely effective in increasing mothers' knowledge of sound nutritional practices.

Data from the final KPC survey show high levels for the following project indicators: immediate breastfeeding after delivery (72%), knowledge of complementary feeding (88%), growth monitoring (82%) and provision of Vitamin A (77%). Additional indicators for the nutrition component also show improvement from baseline data and are discussed below. Although

exclusive breastfeeding is still not optimal, the final result (55%) represents an improvement of 35%.

When asked what should be given to the child in addition to breast milk, mothers mentioned foods rich in Vitamin A (76%.) and foods rich in iron (54%). Although comparison with the baseline indicates little change in knowledge about Vitamin A rich foods, knowledge of foods rich in iron increased by 24%. The percentage of mothers who know that Vitamin A prevents blindness has increased from 16% to 62% over the life of the project. Regarding knowledge of foods that contain Vitamin A, it is interesting to note that in 1999 only 22% could name at least one, as compared to 67% at the time of the final evaluation. (PAG 1999 and 2001 KPC Reports)

Regarding possession of the child growth cards, the 1999 KPC indicates that only 15% of children had cards, and of these only 2% had been weighed twice in the last 6 months. These figures changed dramatically by 2001, when almost all children had a card (93%) and the majority (82%) had been weighed at least twice in the last 6 months.

Comparison of baseline and final data regarding mothers' behavior for a child who is not gaining weight show great improvement. Indicators for improved nutritional practices in the home have increased regarding frequency of feedings from 20% to 47%, and addition of calorie rich foods from 8% to 21%. (PAG 1999 and 2001 KPC Reports)

(ii) Factors Affecting Achievement of Program Objectives

The key factor for the achievement of the nutrition objectives was the implementation of the AIN strategy in all the project communities. Health personnel, PAG Extensionists, and VHPs were trained in growth monitoring, Vitamin A supplementation and nutritional counseling. VHPs made follow-up visits to families with children who were not gaining weight, often in the company of the PAG Extensionist. The importance of keeping the child growth card is stressed by the MOH, and parents are required to present the card as a requirement for consultations at the health center. Improvements of Vitamin A coverage for children age 12-23 months was enhanced by supplying VHPs with vitamin A, and training them in proper administration. Demonstrations were given in each community by VHPs and Extensionists to teach mothers about vitamin A and iron rich foods. Monthly growth monitoring enabled VHPs and mothers to assess children's growth tendencies and assist families to take corrective actions. Fathers have even taken an interest in knowing if their child is growing adequately, and mothers have improved feeding practices using nutritional mixtures of rice, beans, tortillas, eggs and hearty soups.

(iii) Contributing Factors for Objectives Not Fully Achieved

Due to socio-economic factors, changes in nutritional status may require long-term integrated development that is beyond the scope of the CS Project. Nevertheless, actions at the health center and community level can enhance future intervention strategies. Health personnel require capacity building to better manage a child who is not gaining weight. So far there is no follow-up program implemented by health centers for undernourished children. Agreements and action plans need to be made with each family that has a child with negative growth tendencies.

Constraints at the community level include: 1) families are not accustomed to diversifying their diet, 2) *Patronatos* are not integrated in health activities nor do they analyze the nutritional information gathered at the monthly growth monitoring session, and 3) mothers do not always put into practice the guidance provided by the RAN or the VHP.

(iv) Lessons Learned

- Using nutrition as an entry point for IMCI implementation serves as a base for building additional behaviors and practices to enhance child survival. The AIN model, implemented in all project communities served as a platform for the development of the other project interventions.
- Sustainability of behavior change in nutrition and IMCI practices is becoming a real possibility, with the increased capacity of VHPs to lead the community AIN meetings.
- If men are integrated into health activities, they will play an increasingly more active role in assisting women to improve nutritional practices in the home.

(v) Special Outcomes, Unexpected Successes, Constraints

Monthly growth monitoring sessions inspired two communities to form health committees. The committees organized a mid-morning snack provided by pooling resources of each family. As a result a total of 25 children improved their nutritional status.

(vi) Future Applications of Lessons Learned

- Continue monthly AIN and growth monitoring meetings in each community, along with tracking of children under two to assure their participation in the program.
- Continue to build on the AIN strategy to reinforce behavior change in the other CS interventions, based on the IMCI approach. The continual inclusion of new and interesting topics will keep mothers interested and motivated.
- Continue training of VHPs in participative educational methodologies.
- Explore ways to sustain the meetings and the active role of VHPs and RANs by the time the next funding cycle ends.
- VHPs should make agreements and action plans with each family that has a child with negative growth tendencies.
- Continue efforts to engage men and *Patronatos* in an analysis of nutrition indicators and creative planning to improve nutritional status, such as home gardens and crop diversification.

FAMILY PLANNING/CHILD SPACING

(i) *Comparison of Baseline and Final Evaluation Survey*

PROJECT OBJECTIVES	Goal	KPC 1999	KPC 2001
Family Planning			
1. Increase modern contraceptive use among women who do not desire children in the next two years	25%	18%	24%
2. Increase women who know of at least 3 modern contraceptive methods	40%	23%	66%

A comparison of the baseline and final KPC results shows an increase in women who use modern contraceptives, from 18% to 24%. Although this is an improvement, contraceptive use is still low in the project area, and lower than the national average for rural areas of Honduras (40%, ENESF 1996). The ENESF found a high level of unsatisfied need for family planning (73%). Contraceptives of choice were female sterilization, oral contraceptives and IUDs.

A comparison of the 1999 and 2001 KPC surveys indicates that women's' knowledge of at least three modern contraceptive methods increased by 43%. Knowledge of Depo-Provera increased from 15% to 67%, of pills from 68% to 82%, and condoms from 40% to 67%. Although 78% of mothers stated that they did not want to have another child in the next two years, only 26% claimed to use a family planning method. The methods most frequently mentioned by actual users were Depo-Provera, pills, IUDs and sterilization. Use of Depo-Provera increased from 3.1% to 33% and use of pills from 18% to24%. Use of IUDs did not change significantly, and use of rhythm decreased from 28% in 1999 to 7% in 2001. The findings indicate a trend towards more modern methods, along with increased knowledge. There is also unsatisfied demand on behalf of mothers for family planning services.

(ii) Factors Affecting Achievement of Program Objectives

Contraceptives are distributed by health centers, VHPs and CMCs, improving access at the community level. Pills and condoms are available through VHPs. Requests for other services, such as Depo-Provera and IUDs are referred to health centers and surgical clinics.

In December 1999 and February 2000, the CS Project staff received training in all methods of family planning from the Honduran Family Planning Association (ASHONPLAFA) and La Leche League. During the trainings, La Leche League emphasized the importance of exclusive breast-feeding, along with the other two requirements of LAM, as a natural method of family planning. As a result of the family planning trainings, VHPs are promoting LAM as a safe contraceptive method for women in the first 6 post-partum months.

The only organization in Honduras with experience in the Billings natural birth control method is the Catholic Church, which primarily works in urban areas where the majority of the population is concentrated. PAG met with the Catholic Church to receive orientation on the Billings method, and was informed that an effective Billings educator should receive 6 months of training. It was decided that this was not feasible, however all Extensionists received a 3-day

training workshop which qualifies them to provide general information about Billings. The Extensionists replicated this course with VHPs.

PAG has provided educational materials to Extensionists and VHPs and both have the basic information to orient community members in the use of modern and natural contraceptives. The VHPs provide information and demonstrations to men and women regarding the various family planning methods. VHPs have prepared their own educational materials for this purpose.

(iii) Contributing Factors for Objectives Not Fully Achieved

It was not feasible to implement this intervention fully, due to the late start of the project, emergency measures for post Hurricane Mitch, and the necessity of prioritizing quality of care in pneumonia case management an intervention that required additional effort after the MTE. Several of the aspects of the family planning approach mentioned in the DIP were not implemented. Specific family planning volunteers were not selected, nor was a *Community List of Non-Pregnant Women* prepared in each community. Pap smears and tetanus toxoid vaccinations were not emphasized. A referral system was not established to provide privacy and rapid access for continuing users at health facilities.

The DIP strategy included training of VHPs in contraceptive methodology, family planning counseling, and developing skills for recruiting potential users. Improvements in the capacity of VHPs to recruit users and adequately counsel couples were not fully attained during the life of the project. Factors influencing use of contraceptives were a lack of communication among partners and peers regarding family planning. Religious and cultural factors, including machismo, prevent women from being open about contraceptive use, especially with neighbors and sometimes with husbands.

The DIP included training for RANs in IUD insertion as part of the intervention strategy, however efforts of the CS Project to provide this training in concert with the MOH have not been successful. The MOH prefers to train in vaginal cytology and use of reproductive health norms, and later provide training in IUD insertion. By the time the project ended in September 2001, this issue had not been resolved. As a result, the project area health centers have limited capacity for IUD insertion. Other limitations include: health centers often lack supplies due to poor logistical management of contraceptive supplies; although Depo-Provera is very popular method, it is often unavailable; RANs often don't provide complete information to potential users; and users may have to wait in long lines before receiving their supply of contraceptives. *Patronatos* and men have had limited involvement with family planning activities.

The MTE recommended teaching the Billings method, as many couples prefer natural methods. Even though PAG Extensionists and VHPs received an orientation on the method, and information was also given to mothers, none of the mothers mentioned use of this method. Extensive training by a certified Billings facilitator, including face-to-face counseling is required, if this method is to be adopted by couples.

(iv) Lessons Learned

- A good relationship needs to exist between the RAN and the VHP, as quality counseling will be required if more men and women are to become continuous users.
- In order to improve access to family planning, VHPs need more information, training, and supplies to distribute in the communities
- Work with couples is very difficult, however if this does not take place, coverage and continuity of family planning methods remains limited.
- Although there is an unsatisfied demand for family planning and men and women have knowledge regarding the different methods available, this does not necessarily translate into increase contraceptive use.
- New approaches are necessary if the CS Project is to effectively deal with "machismo", a key barrier to increased use of contraceptives.

(v) Special Outcomes, Unexpected Successes, Constraints

Constraints to the successful implementation of the family planning intervention have been mentioned above. One particular problem is the closeness of the VHP to community members, many of whom may not want him/her to know that they are using a method. During the interviews mothers mentioned cultural beliefs, machismo, religious beliefs, and secondary effects of some contraceptives as reasons why they do not use family planning methods.

An unexpected response from the fathers that were interviewed during the final evaluation was their level of knowledge regarding both modern and natural family planning methods and their endorsement of a community based distribution strategy for contraceptives.

(vi) Future Applications of Lessons Learned

- Develop new approaches to working with churches, *Patronatos*, men and couples
- Emphasize improving quality in family planning based on the 6 basic elements referred to in the DIP: information, availability of methods, technical competence, follow-up mechanisms, consolidation of services, and interpersonal relations.
- Implement the survey of providers mentioned in the DIP, to help detect the needs for training and feedback, for purposes of providing better service.
- Undertake qualitative assessments to determine the most effective strategy to improve access.
- Establish a community based distribution (CBD) strategy in several pilot communities to validate and fine tune this approach, then expand to other communities.
- Develop an IEC strategy that focuses on couples and provides complete information on the different methods, secondary effects, advantages and disadvantages of each one, and encourage couples to decide voluntarily.
- Work closely with health centers to improve both initial and refresher training in all aspects of family planning service provision and develop a system for women to identify themselves discreetly as family planning users, so that the RAN can re-supply users I an appropriate manner.

B.2.c Special Studies and Approaches

The CS Project did two HFA studies, one in December 1999 and one in September 2001, focused on the quality of care for pneumonia case management at MOH health centers. The results of the first study helped the CS Team and the MOH identify weaknesses and take corrective actions. The technical visit by Bill Weiss helped the project make an action plan, which was carried out between May and August of 2001. The final HFA showed a marked improvement in many of the quality of care indicators. See Attachment E for the final report.

The most innovative strategy of the CS Project is the sustainability plan for the community medicine chests. (See Section B.2.b on Pneumonia Case Management for more information on the CMC strategy.) Significant progress has been made with the community medicine chest sustainability strategy to date. All the communities/*Patronatos*/municipalities where a chest operates have participated in the strategy's implementation. Regional Supply Points are functioning smoothly with support from PAG and earn a percentage of the returns from the medicine distribution. A checklist has been developed so that RANs can supervise the medicine chest operation.

A recently published national report on Communal Medicine Funds is an affirmation of the CS Project's strategies for achieving long-term sustainability for the distribution of essential medicines at the community level. This report, completed at the end of 1998, was produced with assistance from USAID and UNICEF. These new national guidelines support the CS Project methodology and assure continued MOH endorsement of the strategy.

B.3 Results: Cross-cutting Approaches

B.3.a Community Mobilization

(i) Community Mobilization Approach

The CS Project's approach for community mobilization included five complementary strategies: 1) selection and training of VHPs to provide front line child survival services, 2) establishment of sustainable CMCs to improve access and availability of essential medicines, 3) organization of monthly community growth monitoring and health education sessions, 4) strengthening of *Patronatos* to support child survival activities, and 5) participation of municipal governments in community health programming. This integrated approach, linking different levels of community participation to address child survival needs, is an effective one. Work with VHPs, and implementation of growth monitoring sessions and CMCs began early in the project and is on-going, showing progressively greater impact in improved knowledge and health behaviors. Participation of *Patronatos* has been slower and will require additional efforts on behalf of PAG in the medium term. PAG has initiated discussions with the municipalities as part of an integrated development strategy with actions in civil society, health, and agro-ecology.

(ii) Fulfillment of Community Mobilization Objectives

Even though the DIP did not include specific objectives for community mobilization, following are key results of the five above-mentioned strategies.

- A total of 347 VHPs were recruited and trained during the life of the project. Of these 82% (n=277) are currently active.
- CMCs have been established and are operable in 44 communities. All are supplied by Regional Supply Points, and receive assistance from the PAG Extensionist.
- VHPs have met with *Patronatos* to discuss health information and activities. There have been a total of 241 such meetings to date, representing 65 *Patronatos*. VHPs are now tracking indicators and meeting with the Patronatos and the communities to discuss this information and make decisions.
- Community growth monitoring and education meetings are held in all 159 communities on a monthly basis, facilitated by the VHPs, and assisted by the PAG Extensionist.
- *Patronatos* agreed to serve as the community partner for PAG and municipal governments and formed the *Patronatos* Municipal Sponsorship Associations (PMSA). Four PMSAs are operating in the towns of Taulabé, La Libertad, Ojos de Agua, and Las Lajas with the assistance of PAG's Civil Society project.

(iii) Lessons learned

- Although work with VHPs has improved access to child survival services at the community level, an incentive program is required to prevent attrition and continually motivate the volunteers. An incentive program was developed by the project and is documented in the Third Annual Report. Key aspects include: celebration of holidays, offering lunch to VHPs

at the monthly health center meeting, exchange visits to other communities, access to educational materials, invitation to an annual Sub-Regional Gathering of VHPs, giving each VHP a backpack to keep their educational materials, and holding graduation ceremonies where VHPs are given honorary diplomas and an identification card.

- Selection of VHPs by the community can be a problem if the requirements and criteria for the position are not made clear and taken into consideration during the selection process. On several occasions the person selected was poorly motivated and eventually dropped out. In order to decrease the attrition rate of VHPs, project staff held an information session in the community to review requirements and expectations before selecting prospective VHPs.

- If sufficient support is not provided to VHPs from health centers, many become discouraged and gradually drop out. It is important for PAG to continue to assist RANs to hold monthly meetings at the health centers and to improve the quality of the meetings in the areas of on-going training and supervision. This way VHPs see the impact of their work on improving coverage of MOH programs, and feel a sense of accomplishment.

- In some communities *Patronatos* are not functional or have been disbanded. Although PAG does not have a legal role in the reorganization of *Patronatos*, PAG can exert a positive influence to assist communities to set-up a solid *Patronato,* based on team building and dedicated to community service. Experience in several communities has shown receptivity to this type of assistance from PAG.

- The CS Project will have more success if changes in the community are made in gradual stages. Advancing too rapidly and forcing certain issues, without respect for community beliefs and processes, may burn bridges that cannot be rebuilt.

(iv) Demand in the Community for Program Activities to Continue

During the final evaluation, group interviews were held as follows: 125 mothers in 15 communities, 32 fathers in 5 communities, 54 VHPs in 15 communities, 46 members of *Patronatos* representing 10 communities, 5 CMCs, 2 Regional Supply Points, and representatives from municipal governments in Lajas and Trinidad. (See Attachment C for a list of participants in the group interviews.) It was clear from conversations in all of the group interviews that there is high interest and demand for project activities to continue. When asked what actions could be taken to make sure that VHPs remain active, and that monthly growth monitoring and CMCs continue to function, many innovative responses were given. (See Attachment B for interview guides used during the final evaluation and answers.)

Regarding future support for project activities, municipal representatives offered to assign a line item to the municipal budget to assist VHPs, work closely with health centers, coordinate with community leaders, *Patronatos*, and RANs, and develop a health education program for their municipality. *Patronatos* offered to respond to requests from VHPs such as: calling mothers to meetings, paying for transportation, educating the community about the importance of the VHP's work, purchasing supplies for the VHP, holding fund raisers and creating a fund to help the VHP.

VHPs mentioned many factors that motivate them to continue working in the community. These included: love for the community and for children, joy in giving service, encouragement through support from community members, and learning about health and sharing this important information with friends, family and neighbors. VHPs also discussed a series of things they could do to assure on-going support from the MOH including: invite RANs to visit their community, make agreements with the RAN to schedule visits, maintain a continual dialogue with the RAN, and organize meetings and ask the RAN for assistance.

Mothers had many ideas about how to continue working with the VHP after the CS Project ends. Some of these are: help the VHP with the monthly growth monitoring sessions, get the entire community to offer support, make monitory contributions for the VHPs supplies, hold fund raising activities, and request the support of the *Patronato*.

Fathers also contributed ideas for helping the VHP to continue his/her work in the community, including: assist with funds for transportation, select and train an assistant for the VHP, buy materials for the VHP (pencils, paper), and assist the VHP with meetings. The fathers in one community offered to find a location for holding the monthly monitoring session.

(v) Sustainability Plans for Community Mobilization

During the Analysis Workshop that was held as part of this final evaluation, a draft sustainability plan was formulated, based on what would actually be feasible during the next two years of the CS Extension grant. See Section B.3.d for the three-phase strategy of full intervention, partial involvement and sustainability.

B.3.b. Communication for Behavior Change

(i) Effectiveness of the CBC Approach

Specific strategies for communication for behavior change were not implemented during the first two years of the project, except for the AIN strategy. A review of the AIN methodology during the MTE showed that AIN is based on good educational theory. The MTE recommended that the AIN counseling model be used for all educational contacts. Although the project has taken this recommendation into account, it has been difficult to fully implement the AIN counseling approach across the board. The necessity of implementing 4 interventions in 159 communities in a relatively short time period (little progress had been made at the time of the MTE) has been a deterrent to the preparation and implementation of creative CBC strategies. The emphasis has been on training to get MOH personnel, PAG Extensionists and VHPs up to speed on the basics of each intervention.

(ii) CBC Objectives

In spite of the difficulties mentioned above, the results of the final KPC and interviews during the final evaluation show that mothers' behaviors have changed regarding care seeking practices and home management, especially for PCM, CDD and nutrition.

VHPs have learned to give oral presentations at community growth monitoring sessions and during monthly meetings at health centers. They have also made their own educational materials to use in home visits and counseling sessions with mothers.

An area of difficulty has been the inclusion of men in project activities, especially in the Humuya area. In Lajas there are several male Extensionists who live in the area. They have been successful in meeting with men on evenings and weekends.

(iii) Lessons learned

The application of the AIN counseling model can be effective in other interventions as well. The approach calls for identifying what the mother knows about a topic, providing information through dialogue, and making an agreement with the mother to make a change in behavior.

(iv) How will these behaviors be sustained?

During the Analysis Workshop that was held as part of this final evaluation, a draft sustainability plan was formulated, based on what would actually be feasible during the next two years of the CS Extension grant. See Section B.3.d.

B.3.c. Capacity Building Approach

(i) Strengthening the PVO Organization

Mercy Corps and Proyecto Aldea Global have benefited greatly from the experience of implementing a Child Survival Project. The CS Grant has been a catalyst for improving communication and coordination between Mercy Corps and PAG, and increased the capability of both organizations to assume leadership roles in child survival in a wide variety of contexts.

Mercy Corps' involvement in health programming, as a result of the Honduras CS Project has skyrocketed. New initiatives include: 1) expansion from six to twelve countries in the last two years, 2) active involvement in CORE with participation in IMCI and Institutional Strengths Assessment (ISA) working groups, and 3) development of an organizational health strategy. Mercy Corps also developed a new institutional policy regarding the use of medications and nutritional supplements to support its material aid program. This policy represents the formalization of Mercy Corps's commitment to international standards of exclusive breast-feeding in the first 6 months of life as well as other WHO, Interaction and Sphere standards in its program operations. This organizational policy development is one example of how Mercy Corps has drawn upon its new internal health resources to build its capacity worldwide.

Health staffing and support from Mercy Corps to the CS Project improved greatly during the four-year period. Mercy Corps hired a Director of Health Programs to oversee the project. Karla Pearcy held this position from August1998 to March 2001. She was brought on initially through the impetus of the CS Project, and gradually supported a large health portfolio now close to 30 million dollars in programs in 14 countries. The CS Project in Honduras was a central part of

Mercy Corps' portfolio. Karla maintained on-going contact with the Project's CS Coordinator, Dr. Joel Duron.

Since the departure of the former Director of Health Programs in March 2001, a replacement has not been found. The recruitment process for a replacement has been slow. Although many candidates have been interviewed, the right fit has not been found. The goal is to ensure that a new Director of Health Programs is in place as soon as possible, and efforts will continue until he/she is hired. This is especially important in light of the new project cycle beginning on October 1, 2001.

Mercy Corps positive experience with child survival in Honduras and the institutional support for health programs were instrumental in the development of a new proposal for Azerbaijan. Mercy Corps was awarded a five-year CS grant, which will be its second child survival project and the first to be implemented in Azerbaijan. The project is located in the south, near the border of Iran, targeting the Taylish minority population, and will include CS interventions in PCM, CDD, FP, and MNC.

Mercy Corps has been active in sharing its experiences with the CORE community as a PVO new to child survival. Examples of this include presentations made at: USAID's RFA workshop in September 2000 on organizational capacity building, CORE meeting in May 2000 on organizational impact of CS programming on Mercy Corps, and challenges and issues of being a new PVO to child survival programming. Mercy Corps' participation in child survival was a catalyst for an Institutional Strengths Assessment (ISA) at the headquarters level, which took place in June 2001.

Another result of Mercy Corps experience with child survival was the organization of the institution's first worldwide health forum in May 2001, in Istanbul Turkey. Mercy Corps was able to secure private funds for health capacity building activities through the Mellon Foundation. Two consultants from JHU, Bill Weiss and Paul Bolton, were key facilitators for the forum, titled "Building Alliances in Health". CS Honduras participated in the event, through the presence of Dr. Joel Duron. This forum a huge success and has resulted in increased sharing of resources between field offices and a greater organizational understanding of what Mercy Corps does in health and what some of the common approaches are. It was a first step in figuring out who Mercy Corps is in relation to health in the larger organizational sense, and getting to know each other face-to-face. A Health Forum II will be conducted in 2002, this time in Portland. Mercy Corps demonstrated its commitment to institutional strengthening and sharing of lessons learned by sponsoring the participation of a staff member from Azerbaijan, Dr. Javanshir Hajiev, as part of the final evaluation team.

(ii) Strengthening Local Partner Organizations

Proyecto Aldea Global has enhanced its organizational capacity as a result of the CS Project. Systems have been updated in the areas of information management, human resources administration and service delivery. Specific areas of capacity building during the CS Project were: 1) upgrading of financial operations as a result of intensive training provided by Mercy Corps in budget management systems, 2) development of new internal management guidelines

and policies that have encouraged the decentralization of decision making on the project manager level, 3) communication and coordination have been improved through team building workshops within the MC/PAG CS Project team, and 4) substantial improvements have been made in the HIS system for the CS Project as a result of visits with other health projects in Honduras, consultations with the MOH and CS team problem solving sessions.

The MTE identified three areas which would further increase capacity building for PAG: 1) translation of CS documents from English to Spanish and sharing of these documents with the CS team and partners; 2) continue efforts to coordinate civil society, agriculture, infrastructure, education and health projects, and when possible implement these in the same communities; and 3) develop closer relationships with other health and development organizations.

There have been some problems with translations of CS documents. The DIP was never translated into Spanish, and the new Extension Grant is just now being translated. This document should have been available in Spanish for review by the CS team at the time of the final evaluation. PAG may require more support from Mercy Corps to identify competent translators in the Portland area, and send documents to the field already translated. The CS Coordinator is so busy with pressing implementation duties in the field, that he does not have time to search for translators in the capital city, and other PAG central office staff was equally over burdened.

Coordination between different PAG projects exists among program coordinators, but often doesn't trickle down to the operational level. Since civil society and local participatory governance is at the heart of PAGs conceptual development framework, all projects need to be plugged into this activity and work in concert. This will take concerted effort on behalf of PAG to pull project Supervisors and Extensionists together around an inspiring model for integrated development. Interviews during the final evaluation showed that not all of the technical team members and few of the Extensionists grasped the big picture of where PAG is going.

PAG still needs to develop relationships with other health organization in Honduras. World Vision is implementing an exciting strategy for community financing and income generation, and other NGOs may have equally innovative projects. The CS Project has made some inroads in coordination, especially with an NGO called Help in Action regarding water and sanitation projects. However, the scope of coordination and networking needs to be expanded. Sharing best practices among private voluntary and other agencies would enhance PAGs programming, as best practices could easily be applied where similar conditions exist.

(iii) Health Facilities Strengthening

At the time of the MTE little headway had been made in strengthening MOH health services and the original accompaniment strategy had not worked as planned. The educational level of the PAG Extensionists was often lower than that of the RAN, thus precluding the on-going technical support that was initially envisioned in the DIP. In addition to this, few RANs had received formal training from PAG in the CS Project interventions. The recommendation of the MTE to develop a training plan for RANs was followed, and three training events were sponsored by PAG including IMCI training, client centered quality of care, and quality management. Twelve

RANs at 7 health centers were interviewed as part of the final evaluation. All mentioned improvement regarding treatment of patients, clinical procedures, and internal organization. The majority of the RANs interviewed identified future training needs in the topics of HIV/STDs, family planning, IUD insertion, and vaginal cytology. Other areas of training mentioned were nutrition, mental health and tuberculosis.

The following constraints prevent RANs from providing the level of technical support VHPs will need once the CS Project ends, and should be addressed during the next CS cycle: 1) RANs are overworked and do little follow-up with communities; 2) Only about 50% of the RANs are doing follow-up with the VHPs, and 3) RANs have difficulty getting to communities, particularly in winter months.

In spite of these difficulties, RANs expressed a positive attitude towards the joint supervisory visits that did take place to VHPs and CMCs. Some felt that supervision of volunteers is part of their job, which includes analysis of the information collected by the VHP, updating the information system, assisting VHPs with the monthly growth monitoring meeting, supervision of CMCs, and one RAN mentioned home visits to mothers. All the RANs interviewed were committed to the monthly meeting with VHPs at the health center, and viewed this as a way to include VHPs in health center activities. Some of the RANs suggested supporting VHPs in the following ways: provision of basic medicines and family planning methods to VHPs for community interventions, encouraging VHPs to give short talks at the monthly meeting, receiving referrals and providing counter-referrals, and giving the VHP free medical care and vitamins.

The following actions would help to improve the quality of health center service provision and the linkage with VHPs:

- Assist the Area MOH staff to supervise RANs in IMCI and AIN so they can provide quality services and better support the VHPs.
- Teach RANs how to supervise VHPs, and how to analyze community data.
- Assist RANs to develop a system of re-ordering medications and family planning methods to avoid stock outs.
- Assist RANs to develop good referral and counter-referral systems to support the work of VHPs
- Use referrals as case studies which can be analyzed at the monthly meeting with VHPs

Although coordination at the MOH Area and Sector levels is good, communication and joint planning need to be improved, especially with the MOH Area management teams. The MTE recommended a quarterly PAG-MOH meeting to present implementation reports based on mutually agreed upon indicators. As the CS Project moves into the next cycle, these meetings will be imperative if key strategies are to be transferred to the MOH by the end of the follow-on project. Ideally quarterly action plans should be made with the MOH, and PAG should gradually become less of a key player as MOH capacity is strengthened.

Two health facility assessments were done with an emphasis in quality of care for pneumonia case management. See Section B.3.d for information regarding the positive changes that took place as a

result. Technical support from the MOH is most effective if Regional and Area representatives are used as facilitators for training and supervision of CS interventions.

During the Analysis Workshop that was held as part of this final evaluation, a draft sustainability plan was formulated, based on what would actually be feasible during the next two years of the CS Extension grant. See Section B.3.d.

(iv) Strengthening Health Worker Performance

The approach to strengthening health worker performance has been effective, especially with the implementation of the recommendations of the MTE. The CS Project trained a total of 347 VHPs, and 277 are currently active. The MTE suggested that some 350 VHPs would be needed, however with an attrition rate of 20%, this has not been possible. All 277 received training in AIN, pneumonia case management, control of diarrheal disease, family planning, breastfeeding, nutrition and Vitamin A supplementation. Three-day workshops in the Billings method and first aid were also given to VHPs. A discussion of the work of VHPs is presented in Section B.3.a. Community Mobilization.

A key recommendation of the MTE was to develop a comprehensive plan for PAG Extensionists and RANs to supervise, support and motivate VHPs. In response to this, the CS Project developed a supervision checklist for use by Extensionsits and RANs during bi-monthly supervisory visits to CMCs. Follow-up visits to VHPs with difficulties were prioritized. A simple information sheet was prepared to track process indicators, Extensionists trained VHPs to fill out HIS forms and to present the information on poster paper using bar graphs. VHPs were taught how to present this information at monthly health center meetings and quarterly meetings with *Patronatos*.

Since RANs cannot provide continual on-site supervision, the monthly meeting at the health center is used to receive reports from VHPs and provide guidance and assistance. This does not happen at all health centers. Strengthening this meeting should be a key focus of the next project cycle. In order to motivate VHPs, PAG included the implementation of an incentive program as part of the annual operating plan for FY 2001. See Section B.3.a (iii) for more information on the incentives and lessons learned.

Interviews with VHPs during the final evaluation showed that all had sufficient educational materials for teaching families about family planning, diarrhea control, nutrition, pneumonia case management, and growth monitoring. VHPs knew the key messages and how to use the materials. The majority of VHPs had attended monthly meetings at the health center. The main activities at the meeting included presentation of reports using the information system sheet and reception of feedback from the RAN. The majority of VHPs interviewed had their information system forms in order, including a diagram of the community with all the homes marked with children under two, growth monitoring information was up to date, as was the information system summary sheet (LINVI). Fewer VHPs had used the forms for home visits to children who are not gaining weight. Some indicated that writing on the form distracted the mother and disrupted the counseling session. A majority of the VHPs stated sharing the information with health centers, *Patronatos*, mothers and the community at large.

All the VHPs interviewed had received regular supervision visits from the PAG Extensionist. More infrequent were visits from the RAN and members of the PAG Technical Team. Activities during the supervision visit included: revision of the information system, education and guidance on use of materials and key concepts, joint home visits and assistance in counseling mothers, reception of supplies and medications from the Extensionist, and assistance with the growth monitoring session.

The following actions would help to improve the quality of health worker performance and motivation:

- Organize semester evaluation and planning meetings for RANs and VHPs at the health center with the support of Area and Sector MOH supervisors.
- Organize periodic meetings between the RAN, *Patronato* and the VHPs to plan community health activities and insure the needed support.
- Develop a systematic schedule of visits to communities by the RAN during the monthly meeting at the health center.
- Develop a system to enable VHPs to access supplies for first aid and emergency care, in addition to the normal child survival supplies.
- Consult with MOH Area and Sector personnel to develop a mutually agreed upon sustainability strategy, using the chart in Section B.3.d as a guide.

The sustainability plan presented in Section B.3.d. emphasizes on-going supervision and training of VHPs and strong links to Patronatos and the MOH as feasible strategies to assure the continued participation of the VHPs.

The CS Project utilized oral and written testing to assess the competency of VHPs who required certification to manage CMCs. The testing weeded out those with insufficient knowledge and skills. Field observations were used to assess the results of improving health worker performance, and gaps between performance standards and actual performance were addressed through in-service training provided by the PAG Extensionist to VHPs.

(v) Training

The basic training strategy involved initial and refresher training for PAG and MOH staff in the four CS interventions. Once this was completed, PAG Extensionists were responsible for training VHPs in the community, with assistance from the PAG Technical Team and some assistance from RANs. The VHPs were responsible for training mothers of children under two years of age and motivating their participation in monthly growth monitoring sessions. Education for mothers in PCM, CDD and PF took place during these sessions. Results from the final KPC and responses at group interviews during the final evaluation showed that this training approach has been effective.

At the time of the MTE there was a lack of training curricula, basic messages, and educational materials for VHPs. This situation has been remedied. A Health Educator was hired in February 2000 and prepared training curricula on project interventions for the VHPs. Educational material on pneumonia and diarrhea case management, family planning, and basic CS information has

been distributed to the VHPs. A training plan was developed for Extensionists, RANs and VHPs and included in the CS Project's FY-2001 operating plan.

The MTE recommended that the counseling module of the AIN system be used as a model for all educational contacts, as compared to "giving messages" (the current focus of the project). Progress has been made on improving the quality of the educational process on all levels. An interactive workshop on Participatory Methodology for Popular Education was held in January 2001 for all project staff. VHPs are now using riddles, skits, poems, and songs with mothers during weighing sessions and/or in health center waiting rooms to promote the adoption of positive practices through experiences, analysis, and reflection.

After the participatory methodology workshop, the Extensionists developed their own educational materials. VHPs followed suit and began developing their own materials, which they are now using in community education activities. To ensure that the VHPs had sufficient resources, additional educational material on PCM, diarrhea case management, and family planning was provided by PAG.

B.3.d. Sustainability Strategy

The DIP presented the following sustainability objectives:

- Strengthen MOH preventive services and the relationship between the community and the MOH
- Organize and train community groups
- Develop medicine revolving funds (CMCs)
- Educate families in health protective behaviors

Progress has been made in relation to the sustainability objectives mentioned the DIP. The CS Project created a Sustainability Indicator Monitoring Chart to track the following indicators: 1) VHPs trained and active; 2) participation of RANs in the VHP's training; 3) VHP attendance at monthly health center meetings; 4) monthly meetings carried out jointly by the Project Extensionist and the RAN; 5) supply of Litrosol to VHPs by health centers; 6) meetings between VHPs and *Patronatos*; and 7) joint supervision of VHPs by PAG Extensionists and RANs.

Information on these indicators shows the following results for the period January 2000-August 2001: 277 VHPs are trained and active, 10 of the 14 RANs have participated in VHP training events, 72% of VHPs have attended the monthly meeting at the health center, 80% all meetings were carried out jointly, 40% of communities have *Patronatos* who meet with VHPs (65/159), and there was a total of 366 joint supervisory visits (RAN-PAG).

During the final evaluation a draft phase-out strategy was developed, dividing activities into three phases. Phase A is full intervention of PAG in CS activities, Phase B includes significant participation of the MOH and communities with partial support from PAG, and Phase C calls for independent actions by counterparts, with limited participation by PAG. The CS Project Technical Team will prepare a list of communities and assign a phase-out schedule for each one, showing target dates for progress from Phase A to Phases B and C. The plan will be revised

during the preparation of the DIP, and will serve as a guidepost to the transfer of key Project strategies over the next two years.

PAG has not yet entered into a formal agreement with the MOH to take on specific roles vis-à-vis the child survival project during the phase out. A memorandum of understanding should be prepared and signed by both parties during the coming year to assure the transfer of responsibility for key project activities.

SUSTAINABILITY PLAN

A. Full Intervention	B. Partial Intervention	C. Sustainability
Training of MOH personnel, project staff and VHPs	Refresher courses are sponsored by the MOH and PAG	Health Centers assess training needs and organize courses for VHPs and mothers
Management training for PAG staff, MOH personnel and *Patronatos*	RANs and Patronatos practice management skills, including leadership and decision making, with support from PAG	Efficiency and quality of care characterize health centers Patronatos organize their own meetings and address health topics
Joint supervision of VHPs and CMC by PAG-MOH, with provision of supplies by PAG	MOH health centers implement the supervision with support from PAG, and have developed a way to provide VHPs with supplies with support from PAG	MOH health centers organize training and supervision for VHPs and communities and make sure that the necessary supplies are available to VHPs
Joint facilitation of monthly health center meetings with information analysis and monthly action plans	RANs are in charge of monthly meetings with support from PAG	The MOH provides leadership and technical expertise for the monthly meetings with the VHPs
PAG provides support for the monthly growth monitoring meeting	Successful growth monitoring sessions take place with the periodic participation of PAG Extensionists	Growth monitoring sessions take place in all communities without the continued presence of PAG or the MOH
Training meetings take place between Patronatos and VHPs with the support of PAG	Joint VHP-Patronato meetings take place with partial support from PAG	Patronatos and VHPs meet on a regular basis to discuss and plan health activities without the support of PAG
PAG provides supervision and support to CMCs with some assistance from *Patronatos* and RANs	CMC receive technical supervision from the MOH and economic supervision from *Patronatos* with partial support from PAG	RANs review technical information from CMC representatives at monthly meetings and visit those that require the most assistance.
A fee for service system is in place for VHPs with the approval of the MOH and the *Patronato* and support from PAG	The fee for service system functions with partial support from PAG	VHPs receive a fee for service as endorsed by the MOH and municipal policy
Re-supply of CMC by Regional Supply Points is supervised by PAG	The re-supply system functions with partial support from PAG	The re-supply system functions independently

After the two-year CS Extension ends, PAG will continue to provide technical and management assistance to the project area communities. PAG is committed to integrated development in the Comayagua region of Honduras and will seek ways to increase its programming through grants

from other agencies and income generation activities. PAG has put extensive effort into developing sustainable interventions. An example in point is the establishment of a Regional Store and Regional Supply Posts to assure the sustainability of CMCs. As PAG further develops its municipal strengthening project, *Patronatos* and *Patronato* Associations will have greater capability to influence decision makers and to shape policy, bringing more resources to their communities. Now that AIN and CMC services are in place, community demand has increased. Interviews during the final evaluation showed that community members would continue to be proactive in demanding on-going support for VHPs and quality health care from the MOH.

C. Program Management

C.1. Planning

The work-plan in the DIP was followed until Hurricane Mitch hit Honduras, at which point contingency plans were made. The DIP is a very complete document and no gaps were evident. The DIP was overly ambitious for a first CS Project and some of the targets were reduced to more realistic proportions during the MTE. All changes have been extensively documented in the MTE and the Third Annual Report. As a result of the MTE, the CS Team prepared an annual operating plan, which included actions that addressed the key recommendations. The action plan is excellent and has proven to be an effective guide for the last year of project implementation.

C.2. Staff Training

Prior to the MTE there had been much staff turnover and knowledge of CS interventions was not adequate, especially among PAG Extensionists. A new CS Coordinator was hired prior to the MTE and a solid and relatively permanent staff of dedicated employees is now in place. The CS staff includes the CS Coordinator, a Training Supervisor and an Information System Supervisor, two Team Leaders and 15 Extensionists. Once this team was formed, PAG did a training needs assessment and developed a training plan. Sufficient resources were dedicated to staff training. Eleven 3-5 day training workshops were given in the following topics between November 1999 and August 2001.

1) Management of Acute Respiratory Infections
2) Family Planning, Counseling and Sexuality
3) Participatory Educational Techniques
4) Promotion of Breastfeeding
5) Reproductive Health and Contraceptives
6) Control of Diarrheal Disease
7) Nutrition and Growth Monitoring
8) Use of visual materials for nutrition education (AIN)
9) Natural Family Planning (Billings)
10) Motivation and Quality of Care
11) Environmental Sanitation and Proper Use of Latrines

PAG Extensionists were interviewed as part of this final evaluation. Their response was very positive regarding benefits of the training they had received. It is important to note the most of

the Extensionists were recruited from project area communities and some had less than a high school education. They proved to be excellent communicators with villagers and openly embraced the new skills and knowledge gained as part of their work experience. Extensionists stated that they have applied new knowledge in educational activities at the community level and in their own homes as well. A real hunger for learning has been born in many of the Extensionists. They continue to read books and articles from the CS Project library and are excited about giving presentations on different topics at the monthly CS Project meetings.

Some lessons learned about building the capacity of program staff follow.

- It is important for Extensionists to study and really understand the objectives of the CS Project, if they are to be proactive agents of behavior change in the communities.
- A more profound understanding of the CS goals and objectives helps motivate staff to increase their individual capacity though continued reading and study of CS documents and materials.
- Assigning a topic to each Extensionist, to be researched and presented to the CS Team has increased motivation and technical capacity.

C.3. Supervision of Program Staff

At the time of the MTE there was no supervision in place for project staff. The CS Project has made progress on the development of a supervisory system. The system functions as follows. The Team Leaders, Training Supervisor, and CS Coordinator supervise the Extensionists, who in turn train and oversee the VHPs. Extensionists who demonstrate technical weakness or are located in more isolated areas are given more intensive attention and support. Extensionists receive additional supervision and support if they are located in areas where: 1) the population is challenging to work with, 2) there are conflicts with the VHPs, or 3) the RAN is not very involved in the follow-up of VHPs. Supervisors provide oversight in the following areas: supervision of VHP training workshops and the VHP's HIS; oversight of overall VHP performance; monitoring of the Extensionist's monthly/weekly plan; coordination with the *Patronatos*, and management of the community medicine chests.

In order to achieve the most objective supervision, project staff designed a checklist that encompasses Extensionist and VHP performance and community understanding of basic information. A notebook is maintained in each implementation zone in which recommendations from each supervisory visit are documented.

C.4. Human Resources and Staff Management

Essential personnel policies and procedures were put in place after the MTE, and the number of Extensionists was augmented to improve the implementation strategy. Job descriptions have been reviewed and updated for CS Staff, however salaries within PAG are not yet standardized. Extensionists in other PAG projects have different salaries than those in the CS Project, which has created a certain amount of dissatisfaction among staff. The CS Project has developed a performance evaluation guide that is being used on a monthly basis with Extensionists. PAG has a policy of hiring staff for the duration of the project and this motivates staff to stay on board until the CS Project ends. No plans have been developed to facilitate staff transition to other paying jobs after the end of the project.

Morale, cohesion and working relationships of program personnel are generally good, especially among Extensionsits. Staff turnover diminished greatly after the MTE and has not been a problem. The CS Project decided to offer Extensionists the opportunity to take additional courses, on any subject, at the expense of PAG. These "extra-curricular" training opportunities have greatly motivated Extensionists.

However, there are some areas that could be improved regarding the relationship between the CS Coordinator and the technical and field staff. The CS Coordinator is a very effective, dynamic and technically skilled physician, with a predominately vertical management style. This approach has been effective in getting the project on track after the mid-term evaluation and organizing staff to produce results. However, a more horizontal approach would empower staff and generate more individual initiative and creativity. Staff members mentioned ignorance regarding where they stand vis-à-vis the CS Coordinator. Uncertainty regarding job security was a key factor in decreasing motivation for some of the staff, especially since the current project was ending and information regarding renewal of contracts was not provided to each individual until the last day of the Final Evaluation.

C.5. Financial Management

Financial management and accountability for program finances and budgeting on behalf of Mercy Corps and PAG have been adequate. No significant adjustments in the budget were made. The CS Coordinator has the capacity to accurately estimate costs and prepare budgets for future programming.

PAG received technical assistance from Mercy Corps for financial support. Rick Sorensen, the Mercy Corps Controller, visited PAG in November 2000. He provided an overall finance consultation to improve computer accounting use. Mercy Corps helped PAG install an accounting program (MAS 90) and does on-going training to reinforce its proper use. Rick Sorensen helped to review the CS budget and to prepare the CS operating budget during his visit. Rick and other finance staff at HQ provide monthly review of financial statements from PAG and exchange e-mail updates with Chet Thomas, PAG's Executive Director on an on-going basis. Mercy Corps has provided PAG with new upgrades of MAS 90 financial software.

Grant Thornton was hired to do the external audit of the CS Project in conjunction with an audit of Mercy Corps for the year ending June 30, 1998. As part of the audit of Mercy Corps, the external auditor specifically picked transactions from the Child Survival and the Civil Society Grants in Honduras. They did not visit the Project site but asked for documentation for the selected transactions. They were completely satisfied with the audit responses. Mercy Corps hired the Grant Thornton affiliate in Honduras to audit the funding from Civil Society, Child Survival and Mitch for the year ending June 30, 1999. No significant findings were reported. The name of the affiliate firm is Herrera Guzman & Asociados in San Pedro Sula. The audit was done after the MTE in October 1999.

PAG has adequate resources in place to finance operations and activities to be sustained beyond this cooperative agreement. It will be feasible to keep 2-3 staff on board to monitor and support the sustainability phase of the project, which will take place after the follow-on.

However, one concern mentioned by PAG senior management is the responsibility for on-site implementation, and all that that implies, with no funds for indirect costs. Another concern is the difficulty PAG has regarding coming up with counterpart funds. The original 5-year proposal for the follow-on had to be reduced to 2 years due to the lack of counterpart funding on behalf of PAG.

PAG has excellent capacity for developing innovative financing mechanisms. Therefore it was not necessary to bring in outside technical assistance to develop financial plans for sustainability. The organization of the Regional Store and Regional Supply Points is one example, and the functioning of the CMCs is another. PAG has built three maternal-child health clinics in the area and is exploring ways to use future income from the clinics to support health promoters in rural communities.

C.6. Logistics

PAG has resolved some of the transportation and communication issues that were addressed at the time of the MTE. The transportation problem was solved with the acquisition of five new motorcycles and increased coordination among project team members. Radios powered by solar panels were installed in rural health posts to facilitate communication. Problems regarding the motorcycles and radios have arisen due to a lack of parts and maintenance technicians in the area to fix machines when they break down.

A sustainable logistics system will have to be put in place if the work of VHPs is to continue after the next project cycle ends. Innovative strategies to assure sufficient supplies and medicines for volunteers should be developed as part of the DIP process for the project extension.

C.7. Information Management

Information management has improved greatly since the MTE. Following the MTE, the CS Project Team decided to only enter information into the computer system that is useful for decision making. As noted earlier, VHPs are monitored in the field in order to ensure that they have established their HIS, are reporting on health indicators, and are sharing this data with MOH health centers, *Patronatos* and the community. An assessment of the use of information during the final evaluation shows that the CS Project is in the process of learning to collect, report and use data efficiently.

The CS Project carried out several studies during the first two years as mentioned in the MTE, including: focus groups to develop the DIP, training needs assessment for PAG staff, AIN baseline surveys, and sentinel sites rapid assessments to measure change in treatment of diarrhea, pneumonia and use of family planning. Two HFA studies were done to assess quality of care in pneumonia case management. The results of these studies are discussed in Section B.2.b.

The CS Project contributed to the MOH data collection system through the development and reporting of community indicators. Capacity to analyze and use the data by health centers and VHPs needs to be improved, however some analysis takes place at monthly meetings and supervisory visits.

Program staff, headquarters staff, local MOH partners and the communities are clearly aware of what the CS Project has achieved. The Project's impact data has not been used beyond the child survival program.

C.8. Technical and Administrative Support

Technical assistance to the CS Project was timely and extremely useful, considering that this was the first CS Project for both Mercy Corps and PAG. Karla Percy, former Mercy Corps Director of Health Programs, made several visits to the Project during the past two years. Karla maintained communication with the Project Coordinator, Joel Duron, shared CORE resources with him, and helped him obtain technical assistance for the project. Continuing support was provided through the revision of quarterly reports prepared by Joel to update Mercy Corps on the status of programming and technical assistance needs. Although Karla had already left Mercy Corps at the time of the final evaluation, she was hired as a consultant and provided support for the evaluation from HQ in September 2001.

Bill Weiss, of Johns Hopkins University, provided excellent technical assistance for quality of care in pneumonia case management in April 2001. The purpose of the consultancy was to: document the activities completed to date related to improving the quality of pneumonia case management; evaluate progress on implementation of the action plan developed following the baseline assessment of quality of pneumonia case management; develop a realistic plan of action for improving the quality of pneumonia case management during the remaining months of the project; define the focus of the final assessment of quality of pneumonia case management; define the role the project could play in continuing quality improvement of case management of childhood illness in the future.

Renee Charleston visited the Project in September 2000 for 2 weeks to assist with follow-on CS Project planning and worked with the broader PAG team in writing a proposal draft. Her visit included strategy sessions, visits to MOH officials and field sites, and support regarding information system management. Renee also worked with Mercy Corps in November to finalize the proposal that has since been approved by USAID for two-year follow-on project.

The CS Project received adequate technical assistance during the life of the project. Mercy Corps HQ provided good technical and managerial support to PAG, especially during the second half of the project. PAG supported the CS Coordinator with the managerial support he needed. Joel Duron is a physician and has extensive experience in child survival in Honduras and he did not need technical support from PAG in this area. PAG sponsors a monthly meeting of all project coordinators in the national office in Tegucigalpa. Dr. Duron attends these meetings and coordinates closely with PAG's Executive Director and senior management.

C.9. Management Lessons Learned

Human Resources Management

- The CS Project Coordinator received feedback during the mid-term evaluation regarding his management style, and has made some changes from a vertical to a horizontal approach. Success in motivating project staff is directly proportional to the extent to which the CS Coordinator can "empower" subordinates.

Financial Management

- Decentralizing financial management so the CS Coordinator could manage his own budget and make necessary modifications along the way greatly assisted the implementation process.
- Although PAG is responsible for coming up with the counterpart for the CS Project, PAG does not receive overhead. An overhead plan between Mercy Corps and PAG would help to strengthen PAG and would provide some funds to cover indirect costs that could enhance the quality of the implementation strategy.

Staff Training

- It is important for Extensionists to study and really understand the objectives of the CS Project, if they are to be proactive agents of behavior change in the communities.
- A more profound understanding of the CS goals and objectives helps motivate staff to increase their individual capacity though continued reading and study of CS documents and materials.
- Assigning a topic to each Extensionist, to be researched and presented to the CS Team has increased motivation and technical capacity.

D. Conclusions and Recommendations

Conclusions

The Mercy Corps/Proyecto Aldea Global CS Project ***Results That Last*** has achieved its objectives, despite a series of difficulties, including Hurricane Mitch. Implementation strategies were effective in the four project interventions, and were based on sound technical and managerial practices. Results from synergistic initiatives in child survival, infrastructure, agro-ecology, water, sanitation and governance (civil society) are making significant inroads towards true integrated development in the Comayagua Region of Honduras. The challenge facing Mercy Corps and PAG at this juncture to insure sustainability of the key project interventions over the medium term, and continue the implementation of integrated development strategies over the long term.

Achievements

Key achievements of ***Results That Last*** include the implementation of child survival activities in 159 communities, support of community health by 65 *Patronatos* and 277 VHPs, joint implementation of activities is on-going with 15 MOH health centers with staff trained in IMCI and quality of care, and over 35,000 women and children are benefiting from primary health care interventions.

Important results in the area of sustainability include the participation of municipal governments and Patronatos, the existence of 44 community medicine chests supplied locally by Regional Supply Points, and increased technical support via a monthly meeting for VHPs at health centers. The CS Project has developed an excellent relationship with MOH Area and Sector health services, and progress has been made in strengthening health facilities capacity to serve rural communities. Capacity building for Mercy Corps and PAG has been enormous, and both institutions are making valuable contributions to child survival locally and internationally.

Lessons Learned

<u>Pneumonia Case Management</u>

- Working within the MOH structure is more sustainable, although slower to show results. The project can influence MOH processes through joint consultation meetings, materials development, printing of forms and charts, and shared fieldwork.
- Regular MOH supervision and follow-up are crucial, if health center personnel are to implement clinical IMCI protocols and improve the quality of care for pneumonia case management. Continual technical supervision is required if VHP's are to provide community based case management correctly

<u>Control of Diarrheal Disease</u>

- Continual coordination and planning between RANs and VHPs, is necessary if education, treatment and referral for the management of diarrhea disease are to be effective at the community level.

- Good orientation and counseling of mothers regarding control of diarrheal disease is a catalyst for improved home management

Nutrition

- A sustainable system of growth monitoring, implemented by VHPs and supervised by the MOH can enhance community awareness regarding child nutrition, and contribute to the reduction of illness and death of young children.
- If fathers are integrated into health activities, they will play an increasingly more active role in assisting the mother with improved nutritional practices in the home.

Family Planning

- A good relationship needs to exist between the RAN and the VHP, as quality counseling will be required if more men and women are to become continuous users.
- In order to improve access to family planning, VHPs need more information, training, and supplies to distribute in the communities
- Work with couples is very difficult, however if this does not take place, coverage and continuity of family planning methods remains limited.
- Although mothers have knowledge regarding the different family planning methods, this does not necessarily translate into contraceptive use.
- New approaches are necessary if the CS Project is to effectively deal with "machismo", a key barrier to increased use of contraceptives.

Recommendations

Pneumonia Case Management

- Develop an action plan for sustainability of CMCs in a pilot area, with the participation of the RANs. Share the results of the final evaluation and make agreements regarding technical oversight, training, supervision, referrals, management of monthly meetings, and the RAN-*Patronato* relationship.

- Obtain the RAN's point of view regarding the medicine chest supervisory guide designed by the CS Project and make realistic agreements for supervisory visits and use of the guide. Since interactive supervision sessions have not been feasible for many of the RANs, a new strategy needs to be developed and turned over to the MOH during the next two years of the CS Project extension.

- Continue to implement the recommendations made by Bill Weiss, as follows:
  - Strengthen the involvement of *Patronatos* in health activities and support for volunteers;
  - Follow-up Health Area teams in quality assurance practices;
  - Improve IMCI supervision system and track indicators;
  - Improve data analysis at the health center and monthly meeting with VHPs;
  - Monitor volunteer performance at the monthly meeting;
  - Expand and improve the CMC with better supervision and on-going training.

Control of Diarrheal Disease

- The one goal not met for the CDD intervention was to increase the number of children who receive the same amount or more food during episodes of diarrhea, for children already receiving solid food. The target was 71%, and while the final KPC figure of 62% exceeds the baseline by close to 10%, complementary feeding practices need to be emphasized during the next project cycle.
- Develop innovative approaches to strengthening the linkage between the MOH and communities in the areas of training, education, supervision and referral.
- Strengthen home visits to children who have diarrhea, and train VHPs to provide counseling and to make agreements with mothers regarding improved feeding practices and ORT.

Nutrition and Micronutrients

- Continue monthly AIN and growth monitoring meetings in each community, along with tracking of children under two to assure their participation in the program.
- Explore ways to sustain the meetings and the active role of VHPs and RANs and begin phase over of activities during the next project cycle.
- Continue efforts to engage men and *Patronatos* in an analysis of nutrition indicators and creative planning to improve nutritional status, such as home gardens and crop diversification.
- Health personnel require capacity building to better manage a child who is not gaining weight. So far there is no follow-up program implemented by health centers for undernourished children. Agreements and action plans need to be made with each family that has a child with negative growth tendencies.

Family Planning

- Develop new approaches to working with churches, *Patronatos*, men and couples
- Emphasize improving quality in family planning based on the 6 basic elements referred to in the DIP: information, availability of methods, technical competence, follow-up mechanisms, consolidation of services, and interpersonal relations.
- Implement the survey of providers mentioned in the DIP, to help detect the needs for training and feedback, for purposes of providing better service.
- Undertake qualitative assessments to determine the most effective strategy to improve access.
- Establish a CBD strategy in several pilot communities to validate and fine tune this approach, then expand to other communities.
- Develop an IEC strategy that focuses on couples and provides complete information on the different methods, secondary effects, advantages and disadvantages of each one, and encourage couples to decide voluntarily.
- Work closely with health centers to improve both initial and refresher training in all aspects of family planning service provision and develop a system for women to identify herself discreetly as a family planning user, so that the RAN can provide the necessary services.
- Consider adding education in HIV/STD prevention during the next CS Project cycle.

Sustainability Strategy

- PAG has not yet entered into a formal agreement with the MOH to take on specific roles vis-à-vis the child survival project during the phase out. A memorandum of understanding should be prepared and signed by both parties during the coming year to assure the transfer of responsibility for key project activities.

Strengthening the Local Partner Organization

- The scope of coordination and networking with other child survival and integrated development initiatives in Honduras needs to be expanded. Sharing best practices among private voluntary and other agencies would enhance PAGs programming, as lessons learned could easily be applied where similar conditions exist.
- There have been some problems with translations of CS documents. The DIP was never translated into Spanish, and the new Extension Grant is just now being translated. This document should have been available in Spanish for review by the CS team at the time of the final evaluation. PAG may require more support from Mercy Corps to identify competent translators in the Portland area, and send documents to the field already translated.

Health Facilities Strengthening

- The following actions would help to improve the quality of health center service provision and the linkage with community VHPs: Assist the Area MOH staff to supervise RANs in IMCI and AIN so they can provide quality referral and front line services and support and guide VHPs; Teach RANs how to supervise VHPs, and how to analyze community data; Assist RANs to develop a system of re-ordering medications and family planning methods to avoid stock outs; Assist RANs to develop good referral and counter-referral systems to support the work of VHPs; and analyze referrals at the monthly meeting with VHPs as a training tool.

- Although coordination at the MOH Area and Sector levels is good, communication and joint planning need to be improved, especially with the MOH Area management teams. The MTE recommended a quarterly PAG-MOH meeting to present advances of the project based on mutually agreed upon indicators. As the CS Project moves into the next cycle, these meetings will be imperative if key strategies are to be transferred to the MOH by the end of the two-year period. Quarterly action plans should be made with the MOH, and PAG should gradually assume more of a facilitator role as MOH capacity is strengthened.

- Since RANs cannot provide continual on-site supervision, the monthly meeting at the health center is used to receive reports from VHPs and provide guidance and assistance. This does not happen at all health centers, and strengthening this meeting should be a key focus of the next project cycle.

- The following actions would help to improve the quality of health worker performance and motivation:

- Organize semester evaluation and planning meetings for RANs and VHPs at the health center with the support of Area and Sector MOH supervisors.
- Organize periodic meetings between the RAN, *Patronato* and the VHPs to plan community health activities and assure the needed support.
- Develop a systematic schedule of visits to communities by the RAN during the monthly meeting at the health center.
- Develop a system to enable VHPs to access supplies for first aid and emergency care, in addition to the normal child survival supplies.
- Consult with MOH Area and Sector personnel to develop a mutually agreed upon sustainability strategy, using the chart in Section B.3.d as a guide.
- Since RANs cannot provide continual on-site supervision, the monthly meeting at the health center is used to receive reports from VHPs and provide guidance and assistance. This does not happen at all health centers, and strengthening this meeting should be a key focus of the next project cycle.

Human Resources Management

- In order to empower the technical team and Extensionists to grow personally and professionally, it is recommended that PAG assist the CS Coordinator to use a more horizontal management style. Project staff should be encouraged to take initiatives to improve project implementation in an institutional climate that supports leadership and commitment from the lowest ranks on up.
- A more open communication and sharing of project documents, plans, and schedules would help to create a sense of security among project staff.
- The initial job description for each employee should be discussed individually with each staff member. If an individual's performance, attitudes or habits become detrimental to the team, this person should appraised of his/her weaknesses and given an opportunity to change, prior to being let-go. Uncertainty regarding job security was a key factor in decreasing motivation for some of the staff, especially since the current project was ending.

Financial Management

- It is recommended that an overhead plan be developed between Mercy Corps and PAG to increase PAG's capacity to implement the CS Project, as some expenses not outlined in the budged could be covered by an indirect costs line item.

Logistics

- Sustainable solutions need to be found if communication and transportation are to be maintained after the life of the project. Radios powered by solar panels were installed in rural health posts to facilitate communication. Problems regarding the motorcycles and radios have arisen due to a lack of parts and maintenance. A way to finance and repair vehicles and communication equipment locally is crucial, due to the logistical constraints the geographical area presents.

Information Management

- Technical assistance in the area of information management is a necessity for the next project cycle. Reports from the field need to be streamlined and process indicators should be tracked and analyzed jointly at the health center meetings. The meetings should be used for data analysis and decision making. Communities with a high morbidity/mortality should be identified, along with CMCs and VHPs with difficulties, and targeted for site visits and corrective actions.

ATTACHMENT B

ASSESSMENT METHODOLOGY AND RESULTS

FINAL EVALUATION PLAN

OBJECTIVES

The purpose of the Final Evaluation is allow all program stakeholders to take stock of the accomplishments of "Results that Last" and to hear feedback from all types of beneficiaries, including women, children, families, community leaders, health workers, health system administrators, local partners, other organizations, and donors.

The final evaluation includes:

- The comparison of baseline and final data to assess impact through KPC and Quality of Care in pneumonia case management studies.
- Review program performance according to each objective. Compare planned activities with actual results, analyzing constraints that limited the achievement of goals as well as factors that enhanced successes.
- Elaboration of lessons learned from project activities, implementation, or approach.
- Identification of promising practices and opportunities for scaling up, replication or use of the approach in the future within a broader context.
- Recommendations for follow-up on project, since MC/PAG will be continuing CS efforts for an additional two years. These recommendations should include management, HIS, training, M & E, coordination with the community, MOH, other PAG program efforts as well as with MC, and other relevant components.
- Feedback and analysis on project sustainability, including relationships between project stakeholders such as the MOH, community volunteers and community boards, etc.

COMPOSITION OF EVALUATION TEAM

The team is to be composed of:
Team Leader (consultant)
Core Team (Joel Duron and 1-2 other PAG staff)
Other team members (6-15 people) selected from:

- PAG CSP staff
- MOH representatives
- Community representatives

The team leader is responsible for coordinating all evaluation activities, supervision of the team, meeting all specified objectives, collaborating with Mercy Corps, PAG and USAID, and submitting a draft and a final report according to the defined timeline. Joel Duron and other assigned PAG staff will function as the coordinators of the two teams for field data collection, including overall coordination, planning and logistical support of the team.

METHODOLOGY

The methodology for the final evaluation is in accordance with the requirements of the USAID/BHR/PVC 2001 Final Evaluation Guidelines, which recommend a participatory approach resulting in an effective learning experience for PVC, the PVO, and local partners. Team members will include representatives from Mercy Corps, PAG, communities, and the Honduran Ministry of Health.

A planning workshop will be held with the evaluation team to plan the activities for the field visits and to develop instruments for the collection and analysis of data. These will be used during visits to project communities and referral health facilities. Field visits and observations will be made to the communities selected during the planning workshop. The selection process will identify communities, at random, from the geographical areas where the project is implemented and communities at different stages of advancement toward the project goals and objectives. This will enable the evaluation team to assess both the strengths and weakness of the implementation strategy, and to develop innovative ways to overcome barriers for the follow-up project.

Using both a participatory approach and participatory methodologies, a multi-disciplinary team of key project stakeholders will assess the degree to which the project met its goals and objectives as outlined in the DIP, and examine the process of implementation using a variety of quantitative and qualitative methodologies, including planning and analysis workshops, field visits, key informant interviews, and group interviews. The evaluation will focus on: assessment of results and impact of the program, cross cutting approaches, community mobilization, communication for behavior change, capacity building, training, sustainability strategies, planning, staff training and supervision, information, finance and logistics systems, and information management. As Mercy Corps will be implementing a follow-up project, the recommendations and lessons learned from this project will be analyzed to develop improved strategies for the new project cycle.

Methodologies to obtain information for the evaluation will include:

Document Review
Analysis of KPC and Quality of Care studies
Meetings and interviews with Mercy Corps and PAG staff
Key Informant Interviews
Group Interviews
Site visits and observations

EVALUATION PLAN

The evaluation will be divided into five phases:

1. Preparatory Activities
   - Conduct KPC final and Quality of Care studies (led by Joel before consultant arrives)
   - Document review

2. Planning
- Preplanning (Formation of team, logistics, document review)
- Planning Workshop (Content, methodologies, design of instruments)

3. Data Collection
- Field visits
- Key informant interviews
- Group interviews

4. Data Analysis
- Summary of data
- Analysis of data by team and resource persons

5. Presentation of Results
- Feedback sessions to USAID and PAG Central Office staff in Tegucigalpa
- Formal presentation to be scheduled after results analysis of field data and KPC, Quality of Care surveys
- Key action plan/recommendation documents in Spanish to be left with PAG to guide planning for follow on project
- Written report

The evaluation team will be divided into small groups to collect information from the field. Each team will consist of approximately 5 people. The teams will work in the field for 4 days to visit approximately 15 communities randomly selected for visits. The communities will be selected using the following criteria, which will be revised during the planning workshop:

1. Remove all communities that take longer than 2 hours to reach from Siguatepeque or Lajas, or that would be difficult to reach due to the rains.

2. Randomly select 15 communities and group them into two circuits.

3. From the list of programmed activities, select two communities with activities that fit into the circuits, one for each team.

4. Discard the two communities that least fit into the circuit; plan which communities will be visited on which day.

5. Identify at least two health centers to visit within the circuit.

6. Include communities that show three levels of progress towards project indicators: minimum, intermediate, and advanced.

During field visits the following people will be interviewed:

Women

Men
Monitors
Community Leaders/Development Committees (Patronatos)
Rural Auxiliary Nurses (RAN) or Physicians (if in CESAMO)

A two-day Results Workshop will be held for all team members and resource people to review the results of the field work and other information collected during the evaluation, and to formulate recommendations for improving the quality of project implementation for the project's two additional follow-up years.

SUMMARY OF EVALUATION PLAN

(1)	Document Review	Sept 13-14	2
(2)	Travel days	Sept 16, Sep 30	2
(3)	Activities in Honduras	Sep 17-29	13
(4)	Report Preparation	Oct 1-5	5
Total Days			22

EVALUATION SCHEDULE

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sep 16 Travel to Honduras from Bolivia	Sep 17 In Tegucigalpa, prepare workshop	Sep 18 Travel to project site Planning Workshop	Sep 19 Planning Workshop	Sep 20 Prepare Instruments .	Sep 21 Field Work .	Sep 22 Field Work
Sep 23 Field Work	Sep 24 Field Work	Sep 25 Interviews	Sep 26 Prepare Workshop	Sep 27 Results Workshop	Sep 28 Results Workshop	Sep 29 Interviews Travel to Tegucigalpa
Sep 30 Travel to Miami	Oct 1 Write Draft Report	Oct 2 Write Draft Report	Oct 3 Write Draft Report	Oct 4 Write Draft Report	Oct 5 Edit and submit Final Report	

PLANNING WORKSHOP

SEPTEMBER 18 - 19, 2001

HOUR	ACTIVITY	RESPONSIBLE
September 18		
9:00 – 9:30	Welcome and introduce participants	Joel Durón
9:30 – 10:30	Evaluation Process	Lynn Johnson
10:30 –12:30	Work in Groups: Review of Evaluation Guide	Lynn Johnson
12:30 – 2:00	Lunch	
2:00 – 4:30	Work in groups: Summary of strategies Group 1: Management of pneumonia cases and diarrhea cases. Group 2: Nutritional Improvement Group 3: Training Group 4: Volunteers Group 5: Health Services Group 6: Community Mobilization Group 7: Behavioral changes	Lynn and Joel
4:30 – 6:00	Tour planning and Logistic topics	Joel
September 19		
8:00 – 12:30	Pose questions based on: Management of pneumonia and diarrhea cases Diarrheics Nutritional Improvement Training Volunteers Health Services Community Mobilization Behavioral changes	Lynn and Joel
12:30 – 2:00	Lunch	
2:00 – 5:00	Preparation of final guides	

FINAL EVALUATION
PAG/MCI
FIELD VISITS PROGRAM

DATE	Group 1 Joel, Paula, Reiner, Esteben, Monitora	Group 2 Lynn, Guadalupe, Raul, Olivia, Maria, Java, Vivian
Thursday Sept 20	**La Libertad** **Health Center** *Monitors* *Mothers*	**Brisas de Vacadía** **Medicine Chest** *Mothers* *Monitors* *Development Committee*
	Candelaria **Health Center** *Monitors* *Mothers* *Development Committee* *Medicine Chest*	**Parmichal Fatima** **Mothers** *Monitors* *Fathers*
Friday Sept 21	**Lajas** **Health Center** *Section Warehouse* *Monitors* *Mothers* *Mayor's Office*	**San Jose de Planes** **Health Center** *Development Committee* *Mothers* *Monitors*
	Brisas del Bosque **Health Center** *Mothers* *Monitors* *Development Committee*	**Monte de Dios** **Mothers** *Monitors* *Development Committee*
Saturday Sept 22	**Casa de Piedras** **Monitors** *Mothers* *Development Committee* *Fathers*	**El Pito** **Mothers** *Monitors* *Development Committee* *Medicine Chest*
	Nueva Concepción **Monitors** *Mothers* *Fathers*	*Open*
Monday Sept 24	**La Dalia** **Monitors** *Mothers* *Fathers* *Development Committee* **Medicine Chest**	**Tierra Blanca** **Medicine Warehouse** *Health Center* *Mothers* *Monitors* *Municipality*
	Buen Pastor **Health Center** *Monitors* *Mothers* *Fathers* *Development Committee* *Medicine Chest*	**Cerro Blanco** **Health Center** *Mothers* *Monitors*

FINAL EVALUATION
CHILDHOOD SURVIVAL PROJECT
PAG/MC

WORKSHOP ANALYSIS

THURSDAY SEPTEMBER 27

8:00-8:30 Welcome and Introduction

8:30-9:00 Quantitative and Qualitative Results Presentation

9:00-12:30 Strategies Analysis: Work in groups

Group	Coordinator	Theme
1	Paula	*Community Participation* Mothers, Fathers
2	Lito/Olivia	*Coordination, Communication* Medicine Chests, Monitors, Health Centers
3	Raul/Digna Lilian	*Sustainability, Information system* Development Committee, Municipality
4	Lupe	*Training, Technical Knowledge, Attention Quality*

12:30-1:30 Lunch

1:30-3:00 Panel: evaluation of strategies

- Community Participation
- Coordination
- Training and Technical Knowledge
- Attention Quality
- Communication
- Sustainability

3:00-3:30 Break

3:30-5:30 Project interventions

Group	Coordinator	Theme
1	Lupe	Management of pneumonia cases
2	Lito/Olivia	Management of diarrhea diseases
3	Paula/Digna Lilian	Nutritional improvements
4	Raul	Family planning

FRIDAY SEPTEMBER 28

8:00-10:00 Panel: evaluation of project interventions
- Strengths
- Weaknesses
- Lessons Learned
- Recommendations

10:00-12:30 Elaboration of key strategies to achieve sustainability

12:30-13:30 Lunch

13:30-14:00 Process Evaluation

14:00-14:30 Closing Session

Section Store Interview

1. **What experience did you acquire with the administration of the Section Medicine Warehouse?**
   - Knowledge in medicines (1)
   - Better record-keeping and accounts management (1)
   - Medicine register updating for any reclaim (1)
   - Administrative knowledge (1)

2. **What changes has the Municipality undergone with the project?**
   - Better medicine accessibility, to supply medicine chests (1)
   - Improvements in the Health Center (Mother-Child Clinic) (1)
   - Training monitors to instruct mothers (1)
   - Construction of the Section Store's Warehouse (1)
   - Training midwives (1)
   - Section Store foundation (1)

3. **When the project ends, how will the Section Committee manage?**
   - Arrangements with the support committee for it to have continued supplies.

4. **What are you planning to do with the profit funds?**
   - Buy more medicine.

5. **How do you think the Store will continue to be sustainable?**
   - Being organized and working together (1)
   - Seek out help in the Municipality (1)
   - Through the Development Committees Association (1)
   - With support of medicine chests (1)
   - Organizing a representative committee

6. **Do you think that Section Medicine Stores (SMS) are a good strategy for medicine chests supply?**
   - Yes- Reduces time delay in supplying the medicine chests (1)
   - Yes- Lowers prices

7. **How do you think you can better integrate with the SMS administration?**
   - Continue holding meetings (1)
   - Improving communication (1)
   - Integration of more persons to the Committee (1)

FINAL EVALUATION RESULTS
CHILDHOOD SURVIVAL PROJECT
PAG/MC

Medicine Chests Interview

1. **Could you show the graphic of pneumonia management and explain it?**
   - Showed the graphics for pneumonia management (1) Brisas (1) El Pito (1) Las Piñas
   - Correct classification of graphics according to age of the child (1) Las Piñas
   - Identifies danger signs (1) Los Anises
   - Correct management of children less than two months (1) Brisas (1) Las Piñas, (1) Los Anises
   - Correct management of chronometer (1) Los anises

2. **Could you show us the Attention Register Form and how you use it?**
   - Don't use it (Los Anises)
   - Has the forms and two recorded cases (Piñas, Brisas, El Pito, La Dalia)

3. **How many supervision visits have you received in the last 3 months?**
   - Extensionist: La Dalia (6), El Pito (3), Las Brisas (3), Las Piñas (3), Los Anises(3)
   - Auxiliary Nurse: Los Anises (3), Las Piñas (3), La Dalia (2)
   - Technical Team: El Pito (1), Los Anises (2)

4. **What they did during the visit?**
   - Medicine supervision (2)
   - Register review (LINVI) (1)
   - Consultation notebook (1)
   - Cleanliness of the Medicine Chest (1)
   - Reinforcement of technical concepts (2)
   - Inventory review (1)
   - Profits from medicine chest (1)

5. **How is the medicine chest supplied?**
   - Through the Section Store in Siguatepeque (1)
   - Through the Section Store in Lajas (2)
   - Through Development Committee members and monitor's husband (2)

6. **Are the profits useful?**
   - Yes- Buys medicine for children (1)
   - Yes- Buys materials and pays transportation (1)
   - Yes- Buys food for the family (1)
   - Yes- Creates investment for medicine purchase (1)

7. **Did the Development Committee participate in the administration of the medicine chest?**
    - The Foundation makes inventory every 6 months (2)
    - Community meetings to inform about the administration of the medicine chest (1)
    - Payment of the total amount of the medicine chest (1)
    - Meetings to take out money when needed (1)

8. **What will happen with the medicine chest when the project ends?**
    - Continue medicine management in the medicine chest with support of the Development Committee (4)
    - Qualify other people through training activities, with nurse's support.

9. **What do you suggest for the continuity of medicine chests?**
    - Good administration (2)
    - Continuity of Development Committee's support (1)
    - Continuity of Nurse's support (1)
    - Don't extend credits for medicine (1)

FINAL EVALUATION RESULTS
CHILHOOD SURVIVAL PROJECT
PAG/MC
Health Centers Interview

ANSWERS FROM AUXILIARY NURSES

A. TRAINING

1. **What improvements did the Health Center have after training activities by Proyecto Aldea Global?**
   - Improvement in treatment of the patient (7)
   - Improvement in therapies (4)
   - Priority of patients with serious illness (1)
   - Health Center is being arranged (5)

2. **In which subjects is additional training required?**
   - STD/ AIDS (3)
   - Family Planning (5)
   - IUD Insertion (5)
   - Cytology sampling (4)
   - Nutrition (2)
   - Mental Health (2)
   - Tuberculosis (1)

B. SUPERVISION

3. **What suggestions could you give to assure sustainability of medicine chests?**
   - Visits to the administrator every month (4)
   - Permanent support from the Development Committee (3)
   - Involve the municipalities (1)
   - Stimulate the monitor (3)
   - Promote the medicine in other communities (2)

4. **How can the Health Center supervise, control and train the monitor?**
   - Explaining and reinforcing their knowledge (6)
   - In monthly meetings (6)
   - Making supervisions (4)
   - Making efficient use of limited training time (1)
   - PAG must provide the supervisor with guidelines (2)

5. **How effective were the combined supervision field visits? (Extensionists and auxiliary nurses)**
   - No visits were made (1)
   - Analysis of information (5)

- Information system was up-dated (5)
- Weight monitoring was supported (6)
- Supervision of medicine chests (4)
- General job support/fulfillment (3)
- Domiciliary visits to mothers (1)

B. FAMILY PLANNING

6. **What are the obstacles to accessing Family Planning Methods?**
   - Cultural and religious beliefs (4)
   - Male chauvinism (6)
   - Mistrust (2)
   - Culture (2)
   - Lack of counseling (1)
   - Lack of contraceptives (2)
   - It's still something prohibited for women (1)
   - Health personnel lacks the counseling capability (1)
   - Lack of time for counseling in the CESAMOS (1)

7. **What measures could be taken to improve access?**
   - Education of couples (6)
   - Maintain sufficient Depo-Provera supply (2)
   - Visits to church leaders (2)
   - Offer demonstrations about the methods (2)
   - Supply the monitors with methods (1)
   - Give confidence to the person who needs the service (1)
   - Letting women know more about family planning (1)
   - In the consultation, give more information about family planning (1)
   - Create symbols to identify those that come for family planning counseling (1)

8. **Which actions are or should be taken to incorporate community personnel trained by ALDEA GLOBAL into activities of the Health Centers?**
   - Give them basic medicines for the community (4)
   - Meetings every month (7)
   - Let them participate in discussions (4)
   - Invite SS managers to monthly meetings (1)
   - Supply with Family Planning materials (1)
   - Free consultation and give priority to clinical attention (1)
   - Consult references by whom they were sent (1)
   - Supply them with reference cards (1)
   - Supply them with vitamins for personal use (1)

D. SUSTAINABILITY

9. Does the Health Center have the capacity to supply the monitor with basic materials?

- Yes, through the recuperation quote (2)
- Yes, through economical activities (2)
- Yes, through giving incentive (1)
- Yes, through donating material from the Health Area or Health Center (2)
- Yes, through supplying aid from other NGO´s and Municipalities (1)

10. How can the reference and counter-reference system be improved?

- Haven't received (1)
- Give priority to references (2)
- Supply with reference forms (2)
- Try to send an answer to community personnel (5)
- Feedback in filling the forms (1)
- Try to make conscience in the communities to give the answers to the monitors (1)
- Talk to the doctor to improve reference acceptance (1)
- Keep a reference register (1)

FINAL EVALUATION RESULTS
CHILDHOOD SURVIVAL PROJECT
PAG/MC

Mothers Interview

1. **After participating in the health project activities, have you seen any change in your children and family's health?**
   - Know how the child is growing, if it's growing or not (12)
   - Medicine accessibility (1)
   - Know when to take the child to the Health Center (3)
   - Monitors visit the mothers in their households and give counseling, and mothers apply advice (1)
   - Now they know how to treat a child at home (3)
   - Now they have knowledge about Vit. A (2)
   - Now children have a normal weight (3)
   - Now we know pneumonia danger signs (6)
   - Kids get sick less often (3)
   - Now we have better hygiene (2)
   - Drink purified water (2)
   - Now we know how to feed our children (3)
   - We know how to treat children with diarrhea (3)
   - We know how to feed the children after they reach 6 months (1)

2. **Do you receive educational visits from the monitor? (Indicate the monitors work)**
   - Monitors teach that we have to vaccinate our children (2)
   - Monitors visit the mothers when children have diarrhea and pneumonia (3)
   - Monitors teach how to recognize danger signs of pneumonia (3)
   - Monitors refer children to monitors that administer a medicine chest (1)
   - Monitors teach how to prepare food (6)
   - Monitors give counseling about the problem the child has (4)
   - Monitors refer children to Health Center (1)
   - Monitors visit children experiencing weight loss (5)
   - Monitors weigh newborns (2)
   - Monitors administer Vit. A to puerperal women (2)
   - Monitors give counseling about Family Planning (3)
   - Monitors administer litrosol (1)
   - Monitors give counseling on breast-feeding and how to feed the children after they reach 6 months (3)
   - Monitors discuss/give advice on: Pneumonia, diarrhea, vaccines, family planning and personal hygiene (3)

3. **Can you tell us any situation in which the new knowledge and/or monitor's support helped to improve the health of a child?**
   - Improved knowledge of children's nutrition (1)
   - Improved knowledge of children's nutrition after the age of 6 months (1)
   - Improved knowledge of Vit. A and its dietary importance (1)

- Improved knowledge of pneumonia/symptoms of pneumonia (8)
- Improved knowledge of breast-feeding (1)
- Improved knowledge of hygiene, resulting in less frequent illness among children (2)
- Improved knowledge of importance of breast-feeding before the age of 6 months (2)
- Improved knowledge of breastfeeding as contraceptive method (1)
- Improved knowledge of domestic remedies for diarrhea, resulting in less frequent use of anti-diarrheic medicines (3)
- Improved knowledge of weight monitoring
- Less frequent illness among children because of improved care (2)
- Improved knowledge of cough treatment, resulting in use of homemade teas rather than antibiotics (2)
- Improved knowledge of increased feeding needs during diarrhea episodes
- Ability to treat pneumonia at home through monitor's administering of medicines
- Increased use of litrosol to prevent dehydration during diarrhea episodes
- Improved knowledge of symptoms of illness/when to take child to Health Center
- Increased accessibility to medicine through medicine chest, increased visits to medicine chest in times of need

4. How can the monitor keep working after the project finishes?

- Assisting mother in weight-measuring sessions (8)
- Using mother's contributions to buy necessary supplies (13)
- Experiencing community support (5)
- Mothers can accompany the monitor when she visits the community (1)
- Develop activities to raise funds and help the monitor (4)
- Ask for support from the Development Committee to assist the monitor (2)
- Practice what the monitor teaches (1)
- Ask the teachers to support community work (1)
- Nurse's support (1)

5. How do you feel about the attention you receive when you visit the Health Center?

- Receive adequate attention at Health Center (16)
- Appreciate medicine availability at the Center (6)
- Occasionally receive inadequate attention (2)
- In the Health Center they give references to rich people and friends
- Attention has improved in the last year
- They don't attend references
- All children are vaccinated correctly (1)
- When the nurse goes out she leaves a notice of absence (1)
- Sometimes the medicine they administer has bad side effects on the children

- Sometimes mothers don't understand how to give the treatment (1)
- We receive birth control
- The nurse doesn't like to attend to emergency cases
- If we have an emergency in the night, the nurse attends to the case
- Generally there's no consultation on Monday. The nurse travels that day, because she is from Siguatepeque
- We have to be patient because they start to vaccinate at 1:00 P.M.
- With the medicine chest in the community, some mothers don't need the Health Center anymore (2)
- When they meet their quota or we are late, they don't attend to us (2)

6. What reasons are there for women not to use family planning methods?

- Because husbands don't agree (7)
- First they must have all the children and afterwards operate.
- Male chauvinism, they want their wives pregnant every year (5)
- Couples still are afraid of using methods and talking about them (6)
- Some mothers say they will have the children God gives them (2)
- Some say planning is a sin (5)
- They forget to take the pills every day
- Methods produce harmful effects (they embody, varicose veins, cancer) (13)
- Christian principles (2)
- Lack of knowledge about the methods (2)
- It's bad for lasting women (2)
- Some mothers because they delay in getting pregnant
- Kids are born with the pills stuck on their backs
- After planning, children are born malnourished

Fathers Interview

1. **What family planning methods do you know?**
   - Knows all methods by educational chats (9 fathers from La Dalia)
   - Condom, Rhythm, Tubal occlusion, IUD, injection (7 fathers from Nueva Concepción)
   - Condom, pills, Tubal occlusion, Vasectomy (5 fathers from Buen Pastor)
   - Pills, condom, injection, IUD (8 fathers from Casa de Piedra)

2. **Why don't couples use family planning methods?**
   - There's no interest in knowing FPM (1)
   - Some women take pills and still get pregnant (1)
   - Planning is harmful (1)
   - According to traditions or culture, they aren't used to them (1)
   - Church prohibits their use (8 fathers)
   - Lack of information (1)
   - Male chauvinism (1)
   - Women get sick, produce spots in their skin, cancer or infections (1)
   - Sexual relation doesn't feel the same with a condom

3. **What did you learn in the fathers meetings?**
   - Dehydration signs (1)
   - Importance of Vit. A (1)
   - Food containing Vit. A (1)
   - Pneumonia signs (1)
   - Where to seek help in cases of pneumonia (1)
   - Child feeding (1)
   - Family planning (Rhythm method) (1)
   - How to weigh the child (1)
   - Know when growth is adequate or inadequate

4. **Did you change your mind about certain health practices? How?**
   - Changes in hygiene (1)
   - Seek help when a child gets sick (2)
   - Family planning is good because the family lives better (2)
   - Changed male chauvinism (1)
   - Don't give anti-diarrheic medicine anymore (1)
   - We know the monitor's job (1)
   - Improvement in children's health (1)
   - Learned to give children other medicine when weight is inadequate (1)

5. **In which ways could you support the monitor?**
   - Contribute to financial support for transportation
   - Look for another person and train her/him (1)

- Material supply (pencils, notebook) (1)
- Support in meetings (1)
- Look for a place to weigh the children (1)

6. **Would you like a distribution center of family planning methods in your community?**
    - Yes, there are a lot of young persons that need them (3 fathers)
    - Yes because there are a lot of women that want to use methods, but the Health Center is too far away (1)
    - Yes, to be better informed (1)
    - Yes, couples would be more motivated to use methods (1)

FINAL EVALUATION RESULTS
CHILDHOOD SURVIVAL PROJECT
PAG/MC

Interview to 2 Municipalities

MUNICIPALITY OF LAS LAJAS: MAYOR NORMA ULLOA
MUNICIPALITY OF LA TRINIDAD: MAYOR TIBURCIO VALLADARES M.

1. What achievements did the health program Proyecto Aldea Global have?
   Both Municipalities answered:
   - Trained monitors to work efficiently in the community
   - Health Centers received support from the health program PAG, providing equipment for the clinics.
   - Medicine chests were installed in the communities.
   - Latrines have been constructed.
   - Mothers acquired knowledge in health.

2. Did you participate in planning and execution of the program activities?
   Both Municipalities participated in:
   - Installation of medicine chests
   - Installation of Section Stores

   Only one Municipality participated in:
   - Medicine chests visits
   - Signing agreements for infrastructure works
   - Health meetings

3. From the Municipality's perspective, will you include health activities in your Annual Operative Plan (POA)?
   Both Municipalities answered that:
   - They have plans for working with Water Committees in prevention of illness.
   - Promote better water projects in coordination with PAG.

4. In what ways could the Municipality and communities contribute in order to keep working in health care?
   One of the Municipalities answered:
   - The Municipality must leave a financial allotment in the budget for monitor support.
   - Work with community leaders, auxiliary mayors and Development Committees.
   - Develop an education program for the health project.
   - Work together with the Health Center.

MONITORS		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. Qualified trained monitors for health demands in the communities. 2. Monitors have educational material for training activities in the community. 3. Motivated monitors allow voluntary work for children's health. 4. Monitors as members of the Development Committees make easier the support of their activities. 5. Most of the monitors have in order their information system and their educational materials. 6. Most of the monitors have demonstrated capacity to explain the educational material to the community. 7. In high percentage the monitor shares the information with the UPS and the community.	1. Equip monitors to give first aid in the community. 2. Improve the relation between monitors and the rest of health workers. 3. Improve the support from Development Committees in the work that monitors do. 4. Improve the methodology of the monthly meetings of the UPS. 5. It's necessary that the auxiliary nurse (A/N) monitors more often the knowledge and practices of the monitor.	1. Negotiate supply of necessary materials for the monitors in order to give first aid in common emergencies that occur in the communities. 2. Make jointly visits with workers of the Health Center and with support of section supervisors and supervisors of the Health Area, to evaluate the monitor's work, 3. Systematic meetings with Development Committees, monitors and health workers. 4. Strengthen Development Committees to involve them more actively in the health programs. 5. Design strategies to improve the logistic aspects, methodology and incentive plans during the meetings of community workers. 6. Guarantee that the A/N makes more supervision visits to the monitor, through the elaboration of monthly activity programs.

MOTHERS		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. Mothers have adapated to the sessions for weight measurement, and have showed interest in knowing more about children's growth. 2. Mothers know pneumonia signs and seek out treatment. 3. Mothers know the importance of exclusive breast-feeding until 6 months and know when to begin supplementary food. 4. Mothers have improved hygiene practices, purify water, know how to take care of a child with diarrhea at home, through monitor's visits and counseling. 5. Mothers know the work monitors do in the management of the 4 interventions of the project. 6. Now mothers have access to health services in the community (litrosol hand out, Vit. A, reference, community medicine chest, weight measurement of children, counseling, etc.) 7. Mothers have improved practices in management of diarrhea and	1. Some mothers still don't fully integrate learned health activities into usual care. 2. Low couple acceptance towards family planning methods. 3. Some mothers still don't give importance to an inadequate weight tendency.	1. Design a training plan to motivate mothers to integrate 100% of activities. 2. Establish a pilot project in community distribution of family planning methods. 3. Elaborate Information; Education and Communication (IEC) plan for couples, in family planning methods and family health. 4. Create community support groups between mothers, to watch over children that don't gain weight, through a nutrition plan. 5. Negotiation of PAG with other programs and institutions, for the creation of community projects that generate incomes. (Agricultural projects).

pneumonia by not using medicine unless qualified personnel recommend it. 8. Mothers assure sustainability of the monitor's activities, through integration and community support (live forces and local personnel from the Secretary's Office) 9. Mothers say that attention in the Health Center is good and that there's access for consultations, medicine and women's health services. 10. Mothers have good acceptance of the Childhood Survival Program in both Areas (Lajas, Humuya)		

FATHERS		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. Most fathers know modern and natural family planning methods 2. Through meetings, fathers learned danger signs in diarrhea and pneumonia and when to seek for medical help. 3. Most fathers know the work monitor's are doing. 4. Most fathers had behavioral changes, practicing what they learned with the monitor. 5. Fathers agreed in participating and supporting monitor's health activities. 6. Most fathers believe that installation of distribution centers of family planning methods near the community are necessary.	1. Integration of some fathers to the monitor's health work in the community is still lacking. 2. Most fathers don't have the culture of varying food for children's feeding.	1. Design a training plan to motivate fathers to integrate 100% of activities. 2. Seek alternatives for community participation in health education: Health Fairs, Cultural Evenings, Theater, etc. 3. PAG should negotiate crop diversification projects for family consumption (vegetables, basic grains, legumes, etc.)

HEALTH WORKERS		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. Improvement in attention to patients. 2. Improvement in Health Centers order. 3. In some zones, joint supervision visits with extensionists and auxiliary nurses. 4. Workers are well disposed to support monitor's activities once the project ends.	1. More follow-up to training activities for nurses should be given (IMCI) (AIN-AIEPI) 2. Training nurses in Family Planning counseling. 3. Improvement of joint planning at the local level. 4. Improvement in Family Planning Methods supply (Depo-Provera) 5. Involve couples and religious leaders in Family Planning subjects. 6. Look for ways users would feel comfortable when they ask for Family Planning information. 7. Improve reference and counter-reference.	1. Guarantee through continuous visits and with Area Supervisors that nurses trained in IMCI (AIEPI, AIN-C) are practicing what they learned. 2. All workers in Health Centers should be trained in Family Planning Methods. 3. Discuss and analyze in the Auxiliary Nurses and Areas Supervision monthly meetings, how to supervise the monitor's work. 4. Guarantee that the method supplies requirement solicitude will be made in advance. 5. Create a model that allows the identification of a method user, when s/he comes to the Health Services. 6. Guarantee the systematic supply of forms. 7. Documentation of references, and counter-references sent and received. 8. Analysis of the references in monthly meetings.

DEVELOPMENT COMMITTEES-MUNICIPALITIES		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. Promotion of meetings to elaborate working plans and watch over community development in coordination with all existing institutions, local or not. 2. Reduce childhood illness, improving nutritional aspects through monthly vigilance of the monitor and environment sanitation. 3. Development Committees trained in diplomacy techniques and improvement in logistical support of PAG. 4. Development Committee is involved in the organization of health events and development of infrastructure events. 5. Monitor shares information of the work she does with the Development Committee. 6. Development Committees well disposed for location of family planning posts. 7. Utilization of tools for writing proposals. 8. Funds for the medicine chest	1. Community participation in the execution of all projects planned by the Development Committee. 2. Continuous motivation for people in charged of health activities and team support: Monitors, nurses, responsible of medicine chests, families, Development Committees. 3. Inform Development Committees about health situation, so they can have a better participation. 4. Monitors and the Development Committee should analyze information generated jointly. 5. Development of a communication plan for couples, to give them all the information about family planning methods: Secondary effects, advantages and disadvantages, so the couple can decide voluntarily. 6. Presentation of proposals to different institutions, governmental and non-governmental. 7. Development Committee more involved in the administration of medicine chests.	1. Keep effective coordination of community participation in the execution of projects. 2. Level of compromise of people in charge of all processes. Examples: Medicine chests, Development Committees, monitors, families and auxiliary nurses. 3. Incorporation and training of Development Committees in health processes developed in each community. 4. Establishment of continuous coordination between Development Committees and monitors, for logistical support. 5. Participation of Development Committees with the monitors responsible of watching out the children, in suggesting solutions according to findings during the analysis. 6. Divulge information, education and communication plans. 7. Priority of project proposals to institutions, and presentation of an economic counterpart, not qualified manual labor for the community. 8. Let the Development Committee know about administration of medicine chests

sustainability have been obtained from the Development Committee, monetary contributions from beneficiary families and loanings. 9. Development Committees acquired knowledge in administration of medicine chests. 10. Near and immediate availability of medicine in the community, to give response to health problems detected and referred to the Health Center. 11. Development Committee is well disposed to keep the medicine chest functioning permanently in the community.	8. Periodical review and systematization of medicine existence, to avoid insufficient supplies. 9. Following the regulations for medicine chests. 10. Monthly supervision of medicine chests to determine existence and expiration date of medicines.	and what medicine they manage. 9. Medicine supplies in medicine chests according to necessities or sales. 10. Give attention to families in the required moment, according to internal regulations of medicine chests. 11. Do activities for funding, to support adequate medicine chests operation.

TECHNICAL KNOWLEDGE		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. The majority of Auxiliary Nurses are trained and implementing IMCI (AIEPI) strategy. 2. Active participation of monitors in monthly meetings. 3. Auxiliary Nurses well disposed to reinforce knowledge in community personnel.	1. Continuous follow-up to UPSs, in IMCI (AEPI), PAG, SS. 2. Training Auxiliary Nurses in: Family planning, DIU insertion and cytology. 3. Field supervisions should be more effective.	1. Program visits for follow-up. 2. Monitoring and evaluation of defined results during follow-on, and socialize them. 3. Identify Auxiliary Nurses that want to be trained, make the job and fulfill the compromises after training. 4. Define strategies for funding by stimulating community personnel.

SUSTAINABILITY		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. 277 monitors trained and active. 2. Health Center has active coordination with monitors through monthly meetings, litrosol distribution, joint supervisions. 3. Integration of Development Committees. Municipalities, in the foundation, administration and implementation of medicine chests. 4. Mothers are improving their practices in PSI interventions. 5. Joint meetings between Development Committee and monitors. 6. Management of pneumonia cases and references by monitors that have medicine chests.	1. Avoid monitor turnover. 2. Give continuity to activities. 3. Monthly supervisions by municipalities and Development Committees. 4. Periodic reinforcement by auxiliary nurses. 5. Better communication to achieve the execution of these meetings. 6. Register pneumonia cases and use reference forms.	1. Periodic training supervisions by the local level. 2. Active coordination of monitor's activities. 3. Following recommendations given in supervisions, to improve the process. 4. Attain nurse's participation. 5. Give instructions to Development Committees about the benefit of these meetings and achieve better participation. 6. Supply more papers.

TRAINING Monitors, Mothers, Development Committees and Health Workers		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
EXTENSIONISTS 1. Received training by interventions. 2. Knowledge of extensionists allows level of security in talking about the subjects. MONITORS 1. Monitors were trained in interventions. 2. Monitors are training mothers. 3. Monitors assist regularly in UPS meetings. MOTHERS 1. Mothers are learning about children's growth. 2. Mothers can treat their children when they have diarrhea. 3. Mothers recognize when to take their children to the Health Center. 4. Mothers are receiving and practicing knowledge in food preparation. 5. Monitors visit mothers when their children don't gain weight. 6. Mothers have knowledge about	EXTENSIONISTS 1. Extensionists must extend their knowledge in health subjects. 2. Participate in health events at national level for all personnel. MONITORS 1. Monitors transmitting knowledge to all the community. 2. Monitors using educational materials to teach in the community. MOTHERS 1. Children needing weight measurement session taken by their mother or an adult. 2. Include all mothers with children less than 2 years old in weight measuring sessions. 3. Include future mothers in meetings and project activities. 4. Mothers must increase the number of feeding times when their children have diarrhea. 5. Approach couples to guide in Family	EXTENSIONISTS 1. Identify training necessities in the group. 2. Personnel must be trained and oriented at the beginning of the program. 3. Coordinator should be informed about events, national forums. 4. Offer facilities so personnel can assist in those events. The more training, the better the results. MONITORS 1. Monitors should be trained in other subjects: self-esteem, principles, leadership, participative methodologies, community development, children's development, and manual work. 2. Monitors should identify groups in the community to train them in health subjects and then have a training web. 3. Guide the monitors about use and contents of educational material. 4. Monitoring the adequate use of educational material. 5. Increase incentives for the monitor.

breast-feeding and how to feed their children after they are 6 months old. DEVELOPMENT COMMITTEES 1. Development Committees were trained in: Community Diagnoses and Writing Proposals. 2. Some Development Committees presented proposals that were approved; others are in process.	Planning. 6. Inform couples of secondary effects of family planning methods. DEVELOPMENT COMMITTEES 1. Incorporate other Development Committees to the training process. 2. Respect the elaborated training program.	MOTHERS 1. Family planning methods should be accessible to couples through SS. 2. Improve promotion of medicine chest's use. DEVELOPMENT COMMITTEES 1. Capacitators should be part of the project's personnel. 2. Supervision of the training process by the Coordinator. 3. Take into account the Association of Development Committees for future training activities.

COMMUNITY PARTICIPATION		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. Most Development Committees think that there have been health changes that benefit their communities since P.S.I. was implemented. 2. In some way Development Committees activities are integrated with monitor's health activities. 3. Community negotiation with Development Committee for payment of medicine chests. 4. Participation of Development Committees from the community, in training processes of PAG. 5. Some Development Committees are integrated to UPS (SS) meetings. 6. 277 monitors trained and active in two areas: Lajas, Humuya 7. Municipalities know the project's impact and have potential for support. 8. Municipalities involved in installation of three-section medicine stores. 9. Development Committees are administrating medicine chests.	1. Most Development Committees are not organized and have internal problems. 2. Development Committees has little participation in medicine chest's administration. 3. Little participation of the A/N in community health activities. 4. No health activities are considered and stated in the Municipality's Annual Operative Plan (POA).	1. PAG promotes reorganization of Development Committees and teamwork among them. 2. Development Committee auditing administrators of medicine chests every month or every two months. 3. PAG advises Development Committees in the administration of medicine chests. 4. Program delivers basic services between the A/N, extensionist and monitor. 5. Realize / negotiate the inclusion of a community health strategy in the Municipality's Annual Operative Plan.

MEDICINE CHESTS		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. Development Committees have monitored medicine chests every 6 months. 2. Existence of section stores for community medicine chest's supply. 3. Supervised visits to medicine chests by Auxiliary Nurse. 4. Most medicine chests use the registration forms. 5. Medicine chests administrators benefit from the profits of medicine sales.	1. Development Committees should be more constant in their monitoring visits to medicine chests. 2. Reactivation and reinforcement of section committee. 3. Coordination between Auxiliary Nurse and Development Committee for medicine chest's monitoring. 4. All medicine chests must use the registration forms adequately. 5. Adequate management of Information System. 6. Medicine chest's administrators and Development Committees learn to earn profits from medicine sales.	1. Guarantee participation of Development Committees in more active monitoring activities. 2. Strengthening section committee organization through community participation. 3. Strengthening supervision process through incorporation of members from the Development Committee. 4. Guarantee that 100% of medicine chest administrators are paying attention to registration forms. 5. Get feedback from medicine chest's administrators in the correct use of SIS and the correct use of the chronometer. 6. Guarantee that administrators and Development Committees can earn profits without the extensionist´s support.

QUALITY OF ATTENTION MANAGEMENT OF PNEUMONIA CASES		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
MONITORS 1. Monitors refer children with pneumonia signs and are attended in the UPS 2. Monitors identify and treat children with pneumonia in their community. 3. Some monitors are training in identification and treatment of pneumonia cases in working zones. 4. Monitors attend cough and cold cases at home without going to the Health Center. NURSES 1. Health Centers have trained workers that identify, treat and refer pneumonia cases. 2. Attention to patients has improved. 3. Improvement in furniture, archives, pharmacy and paper supplies in Health Centers.	1. Monitors trained in pneumonias use the graph and chronometer for making a diagnosis. 2. Use the elaborated forms when patient references are made. 3. Monitor uses the control form for pneumonia management. 4. Monitor gives information in the Health Center about cases attended. 5. Nurses respond to references made by the monitors. 6. Monitoring visits to monitors that have medicine chests. 7. Explain: correct doses, schedule and treatment duration to the patient. 8. Increase joint supervisions between PAG and SS. 9. Every child that seeks medical attention in the UPS must bring the monitor's weight control card.	1. Make comparative indicators for pneumonia cases by trimester. 2. Monthly control of referred pneumonia cases. 3. Supply monitors with reference forms. 4. Supply with adequate forms. 5. Follow-up pneumonia cases identified and attended. 6. Monitors that have medicine chests are given incentive through a payment for their attention. 7. Auxiliary Nurses give more importance to references. 8. Give feedback to the monitor during visits. 9. Supply UPS that have energy supply, with nebulizators. 10. Health Centers that haven't implemented the 9 compromises which they proposed must start to work on them. 11. Weigh the children adequately (without clothing) in the UPS

DEVELOPMENT COMMITTEE-MUNICIPALITY		
POSITIVE ASPECTS	**ASPECTS TO IMPROVE**	**RECOMMENDATIONS/ SPECIFIC ACTIONS**
1. Development of nutritional vigilance of children, environment sanitation and establishment of teams in health centers. 2. There has been participation in the coordination of: Installation of medicine chests, Section Stores, environmental sanitation, health meetings. 3. Municipality has the vision of improving prevention of diarrheic diseases. 4. Development of educational program to work jointly with community leaders, Development Committees and Health Centers.	1. Coordinate health activities with Municipalities. 2. Permanent communication for follow-up projects in process. 3. Inform Municipalities about health activities. 4. Develop a working plan to decrease diarrheic diseases. 5. Good communication between monitors and Municipality.	1. Continuous coordination with Municipalities. 2. Participate in the Municipality's Annual Operative Plan design. 3. Have monthly meetings to inform Municipalities. 4. Extend projects according to each community's necessities. 5. Joint follow-ups between nurse, monitor and Municipality.

ATTACHMENT C

LIST OF PERSONS INTERVIEWED AND CONTACTED

List of Monitors

Barrio Brisas del Bosque

1. Reyna Amaya Rodr?guez
2. Andrea Ulloa
3. Efra?n Menc?a Flores

Community La Dalia, Las Lajas

4. Francisca Morales
5. Juan Miguel Romero
6. Mar?a de los Angeles
7. Guadalupe Hernández

Community Candelaria, Ojos de Agua

8. Concepción Ulloa Ulloa

Community Casa de Piedra

9. Justina Hernández
10. Mar?a Amparo Bueso
11. Mar?a Gladys Padilla

Municipio Las Lajas

12. Daysi Reyes
13. Carmelina Bonilla
14. Alma Iris Ulloa
15. Elisa Hernández
16. Mar?a del Rosario

Community El Pito, Socorro de la Peñita y Guarajao Nuevo

17. Digna Espinoza
18. Rosario Velásquez
19. Mar?a Eladia Hernández
20. Rude Maribel Meza

Community Cerro Blanco

21. Celenia Martˀnez
22. Marˀa Avilia Rivera
23. Xiomara Martˀnez
24. Marˀa Isabel Chavarrˀa

Community Palmichal Fátima

25. Argelia Membreño
26. Marina Lorenzo Jiménez

Community Monte de Dios

27. Enma Julia Altamirano
28. Sonia Bonilla
29. Julia Padilla
30. Margarita Mejˀa

Community San José de Planes

31. Lilian Espinoza
32. Andrea Vásquez
33. Beneranda Rivera
34. Marina Meza
35. Sandra Rivera

Community Buen Pastor, Lajas

36. Aˀda Yanes
37. José Tobˀas Ulloa
38. Marˀa del Rosario Ulloa
39. Gladys Ponce
40. Hilda Rosa Maldonado

Community Nueva Concepción

41. Jacinta Flores
42. Marˀa del Rosario Ulloa

Community Tierra Blanca

43. Marˀa Teresa Amaya
44. Marˀa del Carmen Castro
45. Marˀa del Carmen Rodrˀguez
46. Dilma Domˀnguez
47. Celenia Rosa

48. Martha Gloria Reyes

Barrio Santa Martha, La Libertad

49. Fanny Melisa Villalta Sánchez
50. Mariana Mart?nez
51. Cristina Fajardo
52. Angela Manzanares

Community Brisas de Bacadilla

53. Gladys Urqu?a
54. Ofelia Suazo

List of Participants

Community Brisas de Bacadilla

1. Efra?n Urqu?a
2. José Adán Gámez
3. Heriberto Garc?a
4. Pedro Urqu?a Gámez
5. Elsa Urqu?a
6. Mar?a Odilia Urqu?a
7. Isaura Gámez
8. Teodora Pineda

Community Los Anises

9. Neptal? Cortez
10. Plácida Flores

Community La Dalia, Las Lajas

11. Abraham Galeano
12. Juan Miguel Romero
13. Julián Hernández
14. Belis Castillo
15. Pedro Pablo Galeano

Community El Pito

16. Arzub? Ventura
17. Pablo Meza
18. Tulio Zavala López
19. Carlos Gerardo Meza

Community Casa de Piedra

20. Juan Bautista Ulloa
21. Pedro Ulloa
22. Ramón Ulloa
23. Mat?as Ulloa
24. José de la Paz Castro

Community Candelaria

25. Rigoberto Ulloa
26. V?ctor Ulloa

Barrio Brisas del Campo

27. Mar?a Idalia Ulloa
28. Eva Lidia Rodr?guez
29. Gonzalo Rivera
30. José Benjam?n Ram?rez
31. Manuel de Jesús Rivera

Community Buen Pastor, Lajas

32. Apolonio Yanes Galeano
33. Ranulfo Almendares
34. José Manuel Rivera
35. Mar?a Dolores Ulloa

Community San José de Planes

36. Mar?a de la Luz Rivera
37. Demetrio Guillén
38. Antonio Bueso Velásquez
39. Lino Meza
40. F?lex Cabrera Maldonado
41. Miguel Angel Machado

Community Monte de Dios

42. Enma Julia Altamirano
43. Sonia Bonilla

44. Julia Padilla
45. Altagracia Carranza
Sabina Mej?a

List of First Aid Kit Supervisors

Community El Pito

1. Rudy Meza

Community La Dalia, Lajas

2. Francisca Morales Padilla

Community Brisas de Bacadilla

3. Efra?n Ben?tez

Community Las Piñas

4. A?da Yanes

Community Los Anises

5. Mélida Ulloa

List of those Responsible for Sectoral Storage of Medicines

Municipio Las Lajas

1. Carmelida Bonilla

Community Tierra Blanca

2. Martha Gloria Reyes
3. Mar?a del Carmen Rodr?guez
4. Segundo Valladares

List of Mothers

Community Brisas de Bacadía

1. Yolanda Isabel Yanes
2. Aracely Urquía
3. Vilma Esperanza Gámez
4. María Odilia Urquía
5. Elsa Urquía
6. Emélida Vigil
7. Lesly Vigil
8. Marcelina Hernández
9. Blanca Leticia Vásquez
10. Alba luz Pérez
11. Vilma Azucena Yanes
12. Fidelina Zavala

Community Palmichal Fátima

13. Herminia Cabrera
14. Albertina Rodríguez
15. Dania Petrona Martínez
16. Gloria Cálix
17. Doris Migdalia Rodríguez
18. Ana Bessy Saravia
19. María del Carmen Rodríguez

Community San José de Planes

20. Doris Reyes
21. Amparo Cáceres
22. Argentina Hernández
23. Esmeralda Machado
24. Patricia Varela
25. Elena Bueso
26. Maribel Machado
27. Elida Avila
28. Herminia Cáceres

Community Monte de Dios

29. Eda Bardales
30. Caridad Mejía
31. Mirian Y. Velásquez
32. Hilda García
33. Altagracia Carranza

34. Elizabeth Nuñez
35. Savina Mejȷa
36. Leila Domȷnguez
37. Aracely Bardales
38. Basilia Ulloa

Community El Pito

39. Marȷa de Jesús Mejȷa
40. Lesbia Mejȷa
41. Rosa Aminta Cruz
42. Suyapa Alvarado
43. Dominga López
44. Juana Zúniga
45. Nely E. Mejȷa
46. Rosa Meza Pérez

Community Tierra Blanca

47. Marȷa Ventura Padilla
48. Bertilia Valladares
49. Marȷa Carranza
50. Marȷa Baires
51. Esmeralda Padilla
52. Marȷa Estela Montoya
53. Marȷa Emérita Mendoza
54. Sandra Padilla
55. Reina Isabel
56. Marȷa Isabel Ulloa

Community Cerro Blanco

57. Lidia M. Guerra
58. Delmy Villeda
59. Sonia Oseguera
60. Mercedes Turcios
61. Suyapa Guerra
62. Claudia P. Pereira
63. Marȷa de Suyapa Rivera
64. Marȷa Rosario Peña

Community La Dalia/Las Lajas

65. Norma Isabel Bueso
66. Maria Sofȷa Ulloa
67. Enma Elena castillo

68. Marʔa Angelina Ulloa
69. Rita Elena Romero
70. Paula América Mancʔas
71. Nuvia Aracely Galeano
72. Yolanda Caballero
73. Cladia Maritza Ulloa
74. Maria Aracely Ulloa

Community El Buen Pastor/Las Lajas

75. Marʔa de la luz Romero
76. Dominga Ulloa
77. Paulina Mejʔa
78. Ana Aracely Chavarrʔa
79. Lidia Nohemy Chavarrʔa
80. Petrona Flores
81. Guillermina Redondo

Community Brisas del Bosque/Las Lajas

82. Marʔa de Jesús Cardona
83. Blanca Girón
84. Doris Aguilar
85. Marcia Ulloa
86. Maricela Padilla
87. Jacinta Rodrʔguez
88. Teodora Aguilar
89. Elda Rivera

Community barrio Suyapa/Las Lajas

90. Norma Suyapa Flores
91. Catalina Roque
92. Josefa Yamileth Lorenzo
93. Isidora Pérez
94. Maria Dorila Morales
95. Suyapa Alvarado

Community barrio Santa Martha/La Libertad

96. Derni Marʔa Fugón
97. Marʔa Cristina Martʔnez
98. Mario de los Angeles Arguijo
99. Catalina Manzanares
100. Lucʔa Sánchez
101. Yenia Guzmán

102. Verónica Castro

Community Casa de Piedra/Las Lajas

103. Natalia Ulloa
104. Elsa Rosa Ulloa
105. Ada Alicia Castro
106. Mirna Castro
107. Gloria Hernández
108. Yolanda Padilla
109. Francisca Reyes
110. Maria Avila
111. Maria Cristina Valladares
112. Norma Ulloa
113. Mar?a Padilla
114. Analina Ulloa

Community Candelaria

115. Bessy Judith Euceda
116. Ana Mavy Menc?a
117. Mirna Azucena Velásquez
118. Eva Marina Ulloa
119. Ercilia Ulloa
120. Angélica Enr?quez
121. Rosa Mar?a Ulloa
122. Geraldina Zúniga
123. Mar?a Marina Ulloa
124. Wendy Salgado Ulloa
125. Xiomara ulloa

List of Fathers

Community La Dalia/Las Lajas

1. Pablo Ulloa
2. Luis Montoya
3. Jose Arnaldo Padilla
4. Trinidoro Ulloa
5. Jacinto Romero
6. Augusto César Ulloa
7. Jerem?as Ulloa
8. Rigoberto Ulloa
9. Pedro Pablo Galeano

Community Nueva Concepción

10. Juan Antonio Ulloa
11. Arturo Licona
12. Roger Córdova
13. Anastacio Flores
14. Buena Ventura Ulloa
15. Concepción Ulloa
16. César Ulloa

Community Buen Pastor/Las Lajas

17. Justino Romero
18. Hilario Alexis Romero
19. José Arturo Castillo
20. Geovany Hernández
21. Javier Castillo

Comumidad Casa de Piedra

22. Juan Bautista Ulloa
23. Juan Francisco Padilla
24. Mat?as Ulloa Hernández
25. Pedro Ulloa Hernández
26. Valent?n Avila Bueso
27. José de la Paz Castro
28. Rodrigo ulloa
29. Ramón Ulloa

Community Palmichal Fátima

30. Antonio Saravia
31. Calixto Cabrera
32. Francisco Cardona

ATTACHMENT D

FINAL KPC SURVEY

MERCY CORPS INTERNACIONAL / PROYECTO ALDEA GLOBAL

Child Survival Project VIII

FINAL SURVEY

ABOUT KNOWLEDGE, PRACTICES AND COVERAGE

OF CHILD SURVIVAL

Siquatepeque, Comayagua

Elaborated by Dr. Joel Durón R.

Siguatepeque, Comayagua, Honduras C.A, August 2001

TABLE OF CONTENTS

List of Abbreviations

1. IMC-C (AIN-C):	Integral Management of Child at Community Level
2. HFC (CEFASA):	Health Family Census for Health
3. HCPO (CESAMO):	Health Center with Physician and Odontologist
4. KPC (CPC):	Knowledge, Practices and Coverage
5. DIP (PDI):	Detailed Implementation Plan
6. MTE (EMT):	Mid Term Evaluation
7. NIEFH (ENESF):	National Interview of Epidemiology and Family Health
8. RF (FR):	Respiratory Frequency
9. ARIs (IRAs):	Acute Respiratory Infections
10. BF (LM):	Breast-feeding
11. EBF (LME):	Exclusive Breast feeding
12. MC:	Mercy Corps
13. FPM (MPF):	Family Planning Methods
12. WHO (OMS)	World Health Organization
14.NGOs (ONGs):	Non-Governmental Organizations
15. PAG:	Proyecto Aldea Global
16. CSP (PSI):	Child Survival Project
17. PVO- CSSP:	Private Volunteer Organization-Child Survival Support Program
18. SR (RS):	Sanitary Region
18. SOH (SS):	Secretary´s Office of Health
19. ORT (TRO):	Oral Rehydration Therapy
20. SPU (UPS):	Services Producing Unit

EXECUTIVE SUMMARY

The Child Survival Project, "Results that Last," began on September 29, 1997 in eight municipalities of Comayagua, Honduras. Proyecto Aldea Global (PAG) is in charge of execution with USAID-Washington funds through Mercy Corps (MC).

After four years of project implementation, documentation of impact achieved is necessary. This Final Survey of Knowledge, Practices and Coverage (KPC) in Child Survival will help to serve that purpose. The survey will also be useful for the establishment of new goals in October, when the second stage of the extension begins for a two-year period. The project area corresponds to 162 communities distributed in the following municipalities: Siguatepeque, Taulabé, Meámbar, La Trinidad, Ojos de Agua, La Libertad and Las Lajas; all located to the North of the Department of Comayagua, Honduras.

In this survey, a cross section was used to show the actual level of KPC of mothers with children less than 24 months that are in Growth Control / Childhood Nutrition, Management of Diarrheic Illness, prevention of death by pneumonia and Family Planning.

The investigation followed the "30 Conglomerates Model" designed by the World Health Organization (WHO). PVO-CSSP from Johns Hopkins University of the United States of America, from which the necessary questions were taken to measure the project objectives, developed the main questionnaire. This questionnaire was identical to the one used in the KPC Baseline in Lajas, conducted in June 1999, with adjustments made according to our context. Before collecting the information, a trial-run was conducted in the community of El Socorro, municipality of Siguatepeque, Comayagua. Questions were directed to mothers of children less than 24 months.

For data collection, 15 external interviewers were hired; these were selected from outside of the project team in order to avoid methodological biases. Interviewers were trained on June 25 –27, 2001. A field trial interview was made on June 28 and data collection on July 2-6 of the same year. Transcription of data, entering data, information analysis and elaboration of the first report was done from July 9 to August 22, 2001. Final report was finished on August 29, 2001.

Main findings of KPC include:

- **Demographic Information:** Most women (78.4%) with whom we work are young women between 18 and 35 years old; 21.6% are in extreme ages that are considered at risk. This information has been useful in documenting the female population with which we work since the project has no direct intervention in approaching reproductive risk factors.

  Three fifths of mothers (59.8%) have attained some level of elementary school education and are accustomed to reading printed material, which allowed for the provision of printed training material to reinforce communication of key health messages during the last two years of the project.

- **Nutrition and Vitamin A:** The totality of indicators included in this section had a positive change, if we analyze percentages from findings in baselines (KPC baseline) to actual information. Those indicators that had high percentages at the outset of the project have remained significant throughout. These indicators are as follows:

  Breast-feeding: 99.3% of the children have received breast-feeding and 83.4% of the children started breastfeeding in the first 8 hours after birth. The final goal was that 35.0% of children less than 6 months were receiving exclusive breast-feeding (EBF); This goal was exceeded, attaining 54.5%. 96.0% of children between 6 and 10 months are receiving supplementary feeding; 48.5% of children between 20 and 24 months old are breastfeeding in addition to re receiving other food, representing a percentage difference of 21.2% compared to Lajas Baseline (27.3%).

  Supplementary food: 88.0 % of mothers know that supplementary food should be started at 6 months, with an increase in 24% compared to the baseline (64.0% CPC Lajas); 76.4% add food rich in vitamin A, 53.5 % add food rich in iron and 10.6 % use oil in their children food. Food frequently introduced to children before they are 6 months old include, in order of frequency: liquids, cow milk and honey or sugar. The frequency of introducing these food has actually lessened as the percentage of EBF increased.

  Vitamin A: In relation to vitamin A coverage, it was found that there has been conservation of the high percentage of children between 6 and 11 months that have received their first doses (83.9 actual and 71.4% at the beginning of the project); The same behavior occurs in children between 12 and 23 months that have received two doses of Vit. A, with the 46.0% at the beginning (Humuanda Baseline) actually reaching 77.4%.

- **Growth Monitoring:** This is an intervention where substantial positive changes have occurred. We found that of the 16.4% of children under two that had growth control cards or growth graphics at the beginning of the project, 93.0% of them still have it. This indicates an improvement in access to the growth monitoring program of the Secretary's Office of Health. On the other hand, 81.7% of children under two have been weighed at least twice in the last six months. Of this group, 91.5% had their weight registered and graphed in the growth control card. Most mothers currently know that the most important thing to do if their children do not grow adequately is to give them food more times a day and to supplement their diets with food rich in energy. This was not the case at the beginning of the project, when the majority of mothers said that it was better to take their children to the Health Center in such an event. The percentage of children with inadequate growth is 34.7%, which we consider high. Causes of this situation are directly related to the major economic depression that the country is suffering.

- **Diarrheic Diseases Control**: Prevalence of diarrhea in the last two weeks was 38.9%, a percentage similar to that shown in the Lajas Baseline. Management practices of acute episodes of diarrhea continue to be good if one considers that percentages of this practice continue to be high. During diarrhea in children, 88.3% of children continue breast-feeding; 80.4% (64.1% Baseline) receive equal or more amounts of liquids besides breastmilk, 62.2% (46.3% Baseline) continue their usual feeding and 69.2% (41.7 % Baseline) received Oral Rehydration Therapy (ORT).

The percentage of mothers that used anti-diarrheic medicine to treat diarrhea decreased from 72.0% in the baseline to 41.0%. Among mothers who had children with diarrhea in the last two weeks before the survey, 67.5% asked for advice or treatment. 54.4% went to the Health Center and 40.5% went with the Monitor. Trained health workers also gave advice. It is noteworthy that at the beginning of the project only 6.6% of health workers were sought out for treatment of children with diarrhea.

82.7% (64.0% baseline) of mothers recognize at least one dehydration sign in their children as a reason to seek treatment; sunken eyes is the most frequent sign recognized by mothers (48.2%). No mother said she would suspend liquids or food to her children with diarrhea.

The strategy of training more voluntary community personal (Monitors), has improved access and availability of litrosol to community members. 94.0% (70.7% baseline in Lajas) of investigated mothers said that it is easier to get litrosol in their hometown, mostly because they have a distributor near their households.

- **Respiratory Infections:** Prevalence of Acute Respiratory Infections in the last two weeks was 34.9%; 20.9% of the children had signs compatible with Low Respiratory Infections (probable pneumonia); 12.3% had intercostal retractions. 84.1% (50% baseline) of the children with compatible signs of pneumonia, received treatment by health workers; 78.7% (61.7% baseline) of mothers recognized increased respiratory frequency and 38.2% (l3.3% baseline) recognized intercostal retraction as reasons to take their children to the Health Center.

- **Family Planning:** The final goals of this intervention were achieved with satisfaction. The investigation reveals that 66.4% of the interviewed women (28.3% baseline of Lajas) recognize at least three modern methods for Family planning and 24.0% (20.8% baseline) of mothers that are not pregnant and do not want to be or are not sure that they want another child in the next two years are using a modern method for Family Planning.

I. INTRODUCTION

A. Background

About one third of the population of Honduras does not have access to health services, with rural and marginal urban residents primarily lacking, despite the goal of the Secretaty's Office of Health (SOH) of Honduras to maximize the population's access to health services.[1] The SOH have nevertheless declared "the health services to be opportune, appropriate, of quality and with equity."

The Proyecto Aldea Global (PAG) is a private non-profit organization working in the development field. It is legally recognized by the Hondurian Government with juridical personality according to Resolution 50-86 of July 14, 1986. Its mission is to encourage the development of a free society that is conscious of and working toward its potential, to assure individual and collective harmony in the community as well as with God, to promote equity among men and women, and to encourage an

[1] MSP. Honduras: Health Situation and Priorities 1994-1997, 1974. pp 1.

environmental, moral and spiritual ethic, leaving the nation of Honduras with hope as its legacy for future generations.

PAG began its activities in 1987 with the execution of the Proyecto Protección de la Cuenca del Río Yure, in the department of Cortés. It later expanded its operations into the zone of the Humuanda´s River watershed in the department of Comayagua. Its coverage has since been extended to include the execution of health, agro-ecology, civil society and infrastructure programs.

Inspired by the institutional mission, the Child Survival Project, "Results that Last," surged forth with the goal of decreasing mother and child mortality through an educational process that allows the population to adopt better practices for health conservation. In addition, "Results that Last" collaborates with the SOH in implementation of protocols for management of the more common diseases that put children's lives at risk.

The Project is contributing to the SOH's strategy to increase access to health services by: (a) increasing the number of health providers in the community who detect children and women at risk and refer them to the corresponding authority; (b) Increasing early detection of children and women at risk and involving them in processes of health managemen; (c) Improving the local information system by promoting community participation; and (d) Strengthening local management capacity of the Service Producing Units (SPU) of the SOH. In summary, "Results that Last" expects to contribute to the achievement of the goals of the SOH on the regional level as well as in the particular area in which the project is focused.

The Final Survey about Knowledge, Practices and Coverage (KPC) was conducted in order to document the project's impact after four years of work as well as to establish a baseline over which new goals should be created for the project's second phase, which begins in October for a two-year period.

B. Objectives / Project Goals

After performing a Mid Term Evaluation (MTE) of CSP and considering the KPC baseline surveys of Humuanda and Lajas which provided a baseline average, objectives and goals of the "Results that Last" project were modified. The final goals are presented in the following tables.

Objective	Final Goal	Final KPC achievement
Management of Pneumonia cases		
1. Increase the number of mothers that seek out medical treatment for their children with pneumonia signs.	**60%**	**84.1%**
2. Increase the number of mothers that recognize signs and symptoms of pneumonia in their children (intercostal retractions and increased respiratory frequency, respectively).	**20%**	**38.2%**
	70%	**78.7%**
3. Improve the quality of services in management of pneumonia cases given by the SOH through Health Centers.	**14 / 17**	*****

Management of Diarrhea Diseases 4. Increase the use of Oral Rehydration Therapy (ORT) by mothers of children who have experienced diarrhea in the last two weeks, including: Litrosol, domestic salts, porridge, teas or other liquids).	**60%**	**69.2%**
5. Increase the number of children who have experienced diarrhea in the last two weeks that receive solid food with the same or more frequency than usual (among children that already consume solid food).	**71%**	**62.2%**
6. Increase the number of children who have experienced diarrhea in the last two weeks that receive liquids the same or more than usual.	**85%**	**80.4%**
7. Increase the number of mothers that recognize at least one sign of dehydration.	**75%**	**82.7%**
8. Increase the number of mothers that have easy access to Litrosol (Oral Rehydration Salts) in the community.	**85%**	**94.0%**
Nutrition/ Vitamin A 9. Maintain the level of mothers that start breastfeeding their child in the first hour after birth.	**67%**	**72.4%**
10. Increase the number of children less than six months receiving exclusive breastfeeding.	**35%**	**54.5%**
11. Increase the number of mothers that recognize that children older than six months must begin receiving solid food.	**65%**	**88.0%**
12. Increase the number of children less than 2 years old that were weighed at least two times in the last 6 months.	**80%**	**81.7%**
13. Increase the number of children 12-23 months receiving two doses of Vitamin A.	**60%**	**77.4%**
Family Planning 14. Increase the number of women that do not want another child in the next 2 years to achieve this wish by using Family Planning Methods.	**25%**	**24.0%**
15. Increase the number of mothers that recognize at least three modern methods of Family Planning.	**40%**	**66.4%**

Observations: * Result documented in the Quality of Management of ARI´s Investigation.

As documented in the table above, all goals were achieved and some were exceeded. Exceptions are 4, 5 and 14 in which added equations to the goals were achieved in 87.6%, 94.6% and 96.0% respectively.

C. Survey Objectives

The principal objectives of the survey were to:

1. Measure practices and coverage to evaluate the efficacy of each intervention of the project by comparing baseline results with the end goals of the project.

2. Obtain information about the knowledge of mothers with children less than 2 years old in the project's area to determine the degree of change obtained after four years of Child

Survival activities. In so doing, goals for the next two years of project extension can be more easily established.

3. Share the information obtained with personnel from the SOH and other NGOs that work in the project's area so it can be used as a baseline reference for future interventions.

D. Description of Beneficiaries

1. *Size of Beneficiary Population*

To date, the total population benefiting from the Project for the year 2001 is 30,866. 7,789 are children less than 2 years old and 22,297 are women in in their reproductive years. This population is distributed equally in both areas where the CSP has activities, Humuanda and Lajas.

2. Geographical Area

Investigation of KPC was made in the influence area of CSP, which corresponds to the municipalities of: Siguatepeque, Taulabé, Meámbar, La Trinidad, Ojos de Agua, La Libertad and Lajas. The list of all communities included in this survey can be found in Attachment 2.

All municipalities are part of the action area of Areas 1 and 3 of the Sanitary Region 2 of the SOH, based in the department of Comayagua. In each municipality, work is done collectively with a Service Producing Unit (SPU or Health Center), where one or two Health Extensionists from the Project work. Their office is based in the SPU building.

E. Activity Chronogram

Field activities of the KPC Final Survey were executed between June 25 and July 6, 2001. The different stages of the survey were carried out on the following dates:

June 25: Training of supervisors/interviewers: Sampling methodology, sample and conglomerate selection. Begin questionnaire review: purpose of each question.

June 26-27: Questionnaire review: Filling the questionnaire, language use, method of asking each question, playing roles to practice the interview.

June 28: Reviewing supervisors role, methodology of the beginning point; field trial in the community El Socorro, Siguatepeque; final review and questionnaire printing; designing the route for data collection and logistic preparatives.

June 2-6: Data collection.

July 9-13: Entering data into the computer.

August 4-17: Elaboration of the first survey report.

August 20-31: Final report.

II. INVESTIGATION METHODOLOGY

A. The Questionnaire

A generic questionnaire designed by PVO-CSSP, Johns Hopkins University, for KPC surveys was used. From this base questionnaire, questions were selected according to objectives of the Project. Questions 16, 16a, 16b, 16c and 16d were added when the KPC in Lajas was implemented in May 1999, because they were necessary to evaluate the Integral Management of the Child in the Community (IMC-C) (see questionnaire in Attachment 1).

The questionnaire was reviewed with the team that participated in the survey at least five times. The purpose was too adequate it to the local language. The last review was done with all the survey team after making the field trial.

The questionnaire is designed to be used with mothers with children less than 24 months old and it's composed of 40 questions distributed in the following sections: **Identification of the child and the mother,** questions 1a, 1b, 2a and 2b; **Education / Occupation of the Mother**, questions 3 a to 6; **Breastfeeding / Feeding,** from 7 to 14; **Growth Control / Vitamin A**, from 15 to 17a; **Diarrhea Diseases**, from 18 to 29; **Respiratory Diseases**, from 30 to 35; **Family Planning** from 36 to 40.

B. Sample Size

Since this survey covers a diversity of interventions in Mother and Child Health, the size of the sample was selected using the widest-reaching intervention, that is, the one that had less prevalence. The intervention used was Use of Modern Family Planning Methods that had prevalence of 23% (according to SIS of CSP September 2000) and with a precision (d) of 95%.

The formula used to calculate the size of the sample was $n = z^2pq/d^2$, where n = size of the sample; z = 1.96 (for a Critical limit of 95%); p = rate of coverage or prevalence; q = 1 - p; and d = desired precision. Using this formula, the following calculation was made:

n = (1.96 x 1.96) (0.23 x 0.77) / (0.05 x 0.05)
n = (3.84) (0.18) / 0.0025
n = 276 = Size of the sample

To minimize the possible limitants or the margin of error considered for this type of surveys, we calculated the size of a sample using 30 conglomerates, with at least 7 interviews being considered for each one. Thus, 210 should be the minimum size of the sample using the formula mentioned above.

The final sample size was 300 sample (10 for each conglomerate). This sample size yields more reliable information because it is caluculated with the formula mentioned above.

C. Sample Selection Process

The sample was taken from the project's influence area and was comprised of mothers with children less than 24 months old. 30 conglomerates were selected following the technique described in the "Household Survey Manual: Diarrhea Case Management, Morbidity and Mortality, WHO, Geneva 1989."

The populations of each of the 159 communities of the municipalities of Siguatepeque, Taulabé, Meámbar, La Trinidad, Ojos de Agua, La Libertad and Lajas were considered for the conglomerate selection. Population data was obtained from the Health Family Census (HFS) of the SOH given by the Health Centers of the Areas 1 and 3 in which we worked.

The sample interval was calculated by dividing the total accumulative population into 30. Using a random number as a starting point, the first conglomerate was selected; by adding one sample interval to the previous conglomerate, each of the following 29 conglomerates was selected (see Attachment 2).

For data collection, two teams of interviewers were organized. One was composed of eight interviewers and two supervisors and the other of seven interviewers and one supervisor. A total of 15 interviewers participated, none of whom belonged to the project. They were contracted and trained especially for data collection.

The procedure used for selecting the starting point in the community was the same as described in the WHO manual, where the first house is selected randomly and is followed by the nearest house. 10 mothers were interviewed in each conglomerate. When teams found mothers with two children under the age of two, questions were asked regarding the youngest child; when they found more than one mother with a child under two in a single household, only one mother was interviewed. If a house was closed, then the next house was visited and if the mother of the child wasn't home, then another mother was interviewed.

D. Training Supervisors and Interviewers

All supervisors were part of the project's team. Supervisors were: Raúl Medina, Guadalupe Solís, Paula Vásquez, Reiner Bonilla and Joel Durón. As mentioned before, data collection was done with external personnel in an attempt to eliminate biases and to assure the collection of reliable data.

The CSP Coordinator together with his/her team was responsible for the survey conduction and personnel training. Supervisors and interviewers were trained in: a) Purpose and filling the inquiry instrument b) Sample selection process, c) Starting point methodology, d) !uestionnaire review, and

e) Supervisor's role. In the last training day, a trial of instrument utilization was made to practice the inquiry in the community of El Socorro, Siguatepeque.

E. Guidance of Interviews

Interviews were conducted from July 2-6, 2001. Each supervisor was present in at least one complete interview performed by a team interviewer and made necessary suggestions for each case. Interview lasted an average of 15 minutes.

F. Analysis of Data

The program EPI INFO 6.04 was used for entering and analysis of data. Raúl Medina, Supervisor of the Information System of PAG, was responsible for database design, information entering and frequency tables production. Roy Portillo, EpiInfo technician, supported him.

III. RESULTS PRESENTATION

Data are presented in a way they give a descriptive panoramic of the project's principal indicators. Comparing this data with those of the KPC baseline allows one to evaluate the impact of activities made in the context of CSP. In addition, data will allow us to establish a base over which we need to focus the project in the two-year extension, starting 1 October of this year.

The principal findings, grouped by intervention and other important criteria are described next (frequency tables are showed in Attachment 3).

1. Demographic Information

1.1 Reproductive Risk

Most of the interviewed women were between 18 and 35 years old (78.4%). 5.6% and 16.0% are in extreme ages which are considered at risk, that is, less than 18 years old or older than 35, respectively (see Table 1).

2.1 Stratification of children by age

Table 2 shows that 45.5% of the children are 1 year old or more, the rest are less than 1 year old.

3.1 Education / Mothers Occupation

Table 3 shows that during the life of the project, the percentage of mothers that have attended any elementary school grade and are used to reading (59.8%) has been sustained in comparison to 57.7% and 70.7% for KPC of Lajas and Humuanda respectively. Similarly, most of the investigated mothers (91.0%) do their job inside the house so they do not delegate their children's care.; this percentage approximates that found by the KPC baseline of Humuanda (91.3%) and is slightly higher than the one of Lajas that was in 83.7% (See Table 4).

Most of the mothers that work out of their homes leave their children's care to older siblings (40.7%) or, less frequently, to other relatives (29.6%) (see Table 5). 81.4% of mothers work at a job that does not generate any economic profit, meaning that they only do domestic household activities.

2. Nutrition / Vitamin A

Table 7 shows that only 2 of the 301 children investigated were never breastfed, thus indicating that 99.3% of the children have been breastfed at some point in their lives. Appropriate childhood feeding practices are shown through the following **Key Indicators** (see Indicators List in Attachment 4):

a) **Starting Breastfeeding:** 72.4% of the children investigated were breastfed in the first hour after birth. 83.4% were breastfed in the first 8 hours after birth.

b) **Exclusive Breastfeeding (EBF):** 54.5 % of the children less than 6 months old are exclusively breastfed.

c) **Introduction of Supplementary Food:** 96.0% of the children between 6 and 10 months old are receiving supplementary solid or blended food.

d) **Breastfeeding (BF) persistence:** 48.5% of the children between 20 and 24 months old are still breastfeeding in addition to eating other food.

Table10 shows that the most foods that mothers most frequently introduce to their children of less than 6 months are: liquids like teas 50.0%, honey/sugar 32.1%, fruits like mature mango / mature plantain 28.6%, and milk formula 21.4%.

Table 11 shows data of mother's knowledge about the age at which a child less than 1 year old should start receiving supplementary food besides breastfeeding. **88.0% of mothers know that their children should start receiving food when they are 6 months old or older.**

The following foods, in order of importance, or ones that mothers use to supplement their children's diet of breastmilk: (1) Food rich in Vitamin A 76.4%; Food rich in Iron 53.5% and food rich in fats 10.6%. 45.5% would add other types of food like rice, potatoes, etc.

62.1% of the mothers know that vitamin A helps in prevention of blindness. 61.1% recognize that intense yellow colored vegetables have vitamin A (see Tables 13 and 14).

The survey shows that from children between 6 and 23 months, 90.8% have received a vitamin A doses (Table 17). Coverage of doses by age is as follows: (a) 83.9% of children less than 6 months have had single doses; (b) of children between 12 and 23 months, 81.0% have received the first doses, 77.4% the second doses and only 13.1% the third one. Just one child less than 6 months received one dose without needing it.

3. Growth Control

93.0% of the children investigated have a growth control card or graphic of Growth Control, 2% lost it and 5% never had one. This means that **95**% of the children less than 2 years **had access to the Growth Control Service,** through the ICM-C strategy**.** Of the 280 children that had graphic, 87.9% (246) have been weighed at least twice in the last 6 months. Despite this fact, the total percentage of children weighed at least twice in the last 6 months in relation to the total of children investigated is **81.7% (246 of 301).**

Table 16a shows that for 91.5% of the children that have been weighed have had their weight tendency graphed by the Health Monitor. The reasons why the rest of children were not given a graph with their weight tendency are: (1) they have their weight registered but don't have their tendency 66.7%; (2) they have isolated weights 28.6% and (3) they only have one weight registered 4.8% (see Table 16b).

Most of the children that were weighed at least twice in the last six months (64.9%) are growing appropriately, 34.7% are growing inadequately and for 0.4% it was not possible to determine growth adequacy because their tendency was illegible (see Table 16c).

Mothers say that if their child was not gaining weight, they would: (1) Increase the number of feeding times per day, 47.2%; (2) take him/her to the Health Center, 33.2% and (3) give food with high caloric content, 21.3%. Other things they would do would be to administer healthy foods, such as vegetables and fruits, and to give supplementary vitamin.

4. Control of Diarrhea Diseases

Prevalence of diarrhea in the last two weeks according to Table 18 was 38.9%. The following indicators show ways in which mothers manage diarrhea diseases.

Key Indicators:

a) Continue Breastfeeding: 88.3% of children less than 24 months old with diarrhea in the last 2 weeks have received the ususal amount or an increased amount of breast milk.

b) Continue Liquids: 80.4% of children less than 24 months old with diarrhea in the last 2 weeks have received the usual amount or an increased amount of liquids other than breast milk.

c) Continue Feeding: 62.2% of children less than 24 months old with diarrhea in the last 2 weeks have received the usual or an increased amount of food.

d) Oral Rehydration Therapy (ORT) use: 69.2% of children less than 24 months old with diarrhea in the last two weeks have been treated with ORT.

Table 22 shows that 41.0% of mothers use medicine (medicine against diarrhea and/or antibiotics) to treat diarrhea in their children. 67.5% of mothers with children that had diarrhea sought advice or treatment. This service was provided by the Health Center in 54.4% of cases and by the Health Monitor in 40.5% of cases (see Tables 22 and 23).

82.7% of mothers recognize dehydration signs as a reason to seek out treatment. The three most recognized signs are: sunken eyes, dry mouth, and crying without tears, with 48.2%, 37.5% and 21.6%, respectively (see Table 25).

No mother said that she would **"omit liquids" or "omit food"** to a child if s/he had diarrhea. 41.6% of the mothers would give food more frequently or give more amounts of food than usual while her child was recuperating from diarrhea (see Tables 26 and 27).

The facility with which mothers can get litrosol in their communities is illustrated by the fact that 94.0% of mothers claimed that litrosol was easy to obtain. Only 6.0% said the opposite, citing difficulties such as: living too far away from a person that distributes litrosol 50.0% and no one distributes it 22.2% (see Tables 28 and 28a).

It was possible to determine that 84.1% of the surveyed families purified their drinking water in one of two principal ways: adding chlorine 53.2% and boiling 43.5% (see Table 29).

5. Respiratory Diseases

Of the 301 children surveyed, 105 (34.9%) had Acute Respiratory Infections (ARI) in the last two weeks before the survey (Table 30). 20.9% (63 of 301 surveyed children) had signs compatible with pneumonia (see Table 31).

Key Indicators:

a) Medical treatment for children suspected of having pneumonia: 84.1% of children suspected of having pneumonia in the last two weeks before the survey received treatment by trained health personnel(see Indicators List in Attachment 4).

b) Mothers that recognize respiratory frequency as a sign of pneumonia: 78.7% of mothers recognize that an increase in respiratory frequency is a reason for taking their child to a Health Center and 38.2% mentioned intercostal retractions (see Table 35).

5. Mother's Health

93.7% of surveyed mothers were not pregnant.

Key Indicators:

a) Mothers that recognize at least three modern family planning methods.

66.4% of mothers mentioned they know at least three modern family planning methods.

b) Use of Modern Family Planning Methods: Of 282 non-pregnant mothers, 219 (77.7%) do not want another child in the next two years or are not sure if they want another chidl in the next two years. **Of these 219, 52 (24.0%)** are using a modern family planning method (see Tables 37 to 40). Total rate of the use of family planning methods, including natural methods, is 26.0 % (see Table 39).

IV. RESULTS DISCUSSION

1. Demographic Data.

As in previous investigations, we grouped mother's ages following risk criteria for age according to established norm of the Secretary's Office of Health. According to this, mothers less than 18 years old or older than 35 comprise a population group of about one fifth of the surveyed sample, data similar to that found in the KPC of the project in Humuanda and in Lajas, conducted in 1998 and 1999, respectively. This shows that the great majority of women (78.3%) in the influence area of the project aren't at risk because of their age.

Previously obtained data have been used to document the population with which we are working, since CSP's principal focus in mother's health is promotion of modern family planning methods use and not in confronting mother's risk quotient.

The large percentage of mothers used to reading has been maintained. Three fifths of mothers (59.8%) have attended primary school and at least once each day read some printed material. This permitted us to make the decision to hand out health manuals and other printed materials during the two years of the project, so Monitors could share health information in their communities. We are sure that this helped to obtain good results in improving mother's knowledge as well as promoting better practices for the protection of children's health.

Since most mothers work in their houses (91.0%) and don't delegate their child's care to others, it was easier to find moments for reflection with mothers about basic health messages, such as making sure of adequate growth rate in children and how to take care of children when they are sick..

2. Nutrition / Vitamin A

2.1 Breastfeeding and Appropriate Practices of Childhood Feeding.

It is known worldwide that breastfeeding is a determinant factor for childhood survival and that breast milk is the only food without contraindications that the child should receive in its first six months of life, to assure appropriate growth.

According to the Encuesta Nacional de Epidemiología and Salud Familiar, 1996 (ENESF Honduras), breastfeeding (BF) is a generalized practice in the national level, since 90% of mothers breast-fed their children in some moment of their lives. For the Sanitary Region 2 this percentage was higher, reaching 97.2%.

In the actual KPC survey, the percentage of children that were breastfed was also considerably high (99.3%). Thus, the problem of breastfeeding is not whether mothers breastfeed or not but whether they breastfeed exclusively. The rate of Exclusive Breastfeeding (EBF) at the national level is low, considering that only 14.6 % of children less than 6 months surveyed in the ENESF-1996 received EBF. This percentage was similar (15.7%) to the one found in the KPC survey of CSP, done in Lajas in June 1999.

CSP final goal was to achieve at least 35.0% of children less than 6 months old receiving exclusive breastfeeding. This goal was exceeded, with a final indicator of 54.5%. This final indicator is higher than that reported at the national level in 1996 (42.4%), but only in children 0-3 months old. This increase is most likely correlative with the huge effort that Health Monitors made during the four years of the project.

As the rate of EBF has increased positively, the use of other foods commonly introduced before 6 months, like teas, coffee, water, cow milk, honey and unrefined sugar or “candy", has diminished. According to actual data, food is still frequently introduced before 6 months, but the percentages of children that received such food is much less than the percentage reported in the KPC survey in Lajas.

It is clearly demonstrated that an early start of BF is beneficial to the mother’s and child’s health (McCannn *et al.*, 1984). Practices of early contact in the first hours after birth, as in the first 8 hours after birth, is still high, with a 72.4% and 83.4%, respectively, the same as the percentages found in baseline surveys done before. If one compares this data with the ones reported in the ENESF-1996 for Region 2, one finds that the previous ones are lower (43.1% and 31.7%, respectively).

Final Goal: Maintain the 67.0% of mothers that start breastfeeding in the first hour after birth. **Result:** 72.4%. We can consider that in the area of the project, most of the mothers practice early contact, with subsequent benefits for the mother and the child.

In 1991 the World Health Organization (WHO) recommended the use of the following indicators for evaluation of the appropriate practices of childhood feeding: (1) **Introduction of supplementary Food when the child reaches 6 months old;** final result is 96.0%, similar to the one found in the KPC in Lajas and Humuanda (96.5% and 96.6% respectively); and (2) **Persistence of BF when the**

child is between 20 and 23 months old; the percentage has increased from 27.3% at the beginning of the project to 48.5% at the end. The final result is similar to the percentage reported in the ENESF-1996 for Region 2 (50.9%).

Final Goal: Increase to **65.0%** the mothers who recognize that their children older than 6 months should receive solid food. **Result:** This indicator was achieved with **88.0%.**

In the final report of KPC survey in Lajas we analyzed that even though there was a high percentage of mothers that had good supplementary food practices (besides breastfeeding, children received solid food, porridge, and puree) the percentage of mothers that recognized that supplementary food should be started at 6 months, was less (64.0%). Thus, practice was much better than knowledge. In fact, we found a better correlation between knowledge and practice, since 88.0% of the mother interviewed said that the age for starting supplementary food is 6 months or older.

1.2 Vitamin A

Since the early 1990s, Honduras began the strategy of Vitamin A supplementation to all children less than 5 years old. This activity is part of the efforts that are made to reduce micronutrient deficiency, which puts children's lives at risk.

In efforts to maintain Vitamin A macrodose supplementation, CSP coordinated with the SOH, arranging for training of Health Monitors who would teach in the communities to promote the consumption of food rich in Vitamin A and would provide macrodoses of it to the community. These community personnel have thus helped to achieve the following results:

The percentage of children between 6 and 11 months that have received their first Vitamin A doses is still high (83.9% actually and 71.4% in baseline). The project set as the **Final Goal:** Increase up to **60.0%** the children between 12 and 23 months that have received at least two doses of Vitamin A. **Result:** This goal was exceeded, with **77.4%** as the final indicator. Coverage of children between 12 and 23 months that have received two Vitamin A doses at the beginning of the project was 46.0% and 42.1%, respectively, according to the KPC survey in Lajas and Humananda.

3. Growth Control

Implementation of growth control by CSP has been through the national strategy of Integral Management of Child in Community level (ICM-C), designed by the Secretary's Office of Health that was implemented in the country some years ago. Priority population is constituted by children less than 2 years old, because that is the period of major growth, during which children develop their abilities. During this time, children need high levels of affection, protection and care that assure them appropriate feeding.

For evaluation of behavior in this intervention, analysis of some indicators is necessary:

- Children's access to ICM-C Strategy.

When CSP started its activities, children's access to the growth control program of the SOH was low. In the Lajas area, of the 300 children surveyed only 16.4% had a growth control card or graphic for weight control (of these, 1.7% lost their growth control card); for the area of Humuanda (whose Health Centers are part of Area 3 of the SOH) this percentage was higher, reaching 47.7%. After four years of the project, we found different results, where 93.0% had their growth control card or weight control graphic.

Baseline data show that in the area of Humuanda the percentage of children weighed at least twice in the last 6 months (33.0%) was higher than in Lajas, where it only reached 0.3%. The **Final goal** of the project was that **80.0%** of children under 2 years old would be weighed at least twice in the past 6 months. **Result:** According to Final KPC data, **81.7%** was achieved.

- Children weighed in the last 6 months that have a weight tendency graphic.

Graphing weight tendency of children in the growth control card is a very important activity in the management of the IMC-C Strategy, because it means that the Monitor registers the child's weight, graphs the tendency and then explains to the mother how the child is growing to decide afterwards the type of counseling she will give to the mother. If the tendency is not graphed, the IMC-C process practically does not occur.

We cannot establish a comparison of this indicator with baseline data because the questions for the indicator were asked only in the KPC baseline of Lajas, in which only 1 child of 300 interviewed was weighed at least twice in the last 6 months. So we will only say that the **final achievement of this indicator is 81.7%**. This is an excellent percentage, not only for the result but for the implications mentioned above. In addition, it evidences the good work done by the Monitor, since this indicator depends totally on his/her application in the job.

- Children with adequate growth.

This indicator also cannot be compared to baseline data, for the same reasons mentioned above. The actual percentage of children with inadequate growth found is 34.7%, which we consider high. According to our criteria, it should only be 20.0%.

The geographic influence area of CSP is a zone where almost 100% of the population depends on coffee culture, whose prices have plummeted in international markets in the last two years. Poverty is worsening in the zone and deterioration of health is a probable outcome.

It is interesting to note that mothers are better getting the message of what they should do when their child is not gaining weight. We found that 47.2% know that they should allow their children to consume food more times a day and 21.3% said that they should administer high caloric foods, in comparison to 19.7% and 8.3% found in the baseline of Lajas, respectively.

4. Diarrhea Diseases Control

Diarrhea is the second cause of death in children less than 5 years old and constitutes one of the most common determinants in growth stunting. If it is not treated on time, children may develop chronic malnutrition or die.

In this survey we found that diarrhea prevalence in the last two weeks is 38.9%, slightly lower than the one found in the baseline survey of Humuanda and Lajas (42.3% and 44.0% respectively) but still high in comparison to the national average reported by ENESF-1996 (19.3%). Both surveys were made approximately in the same time of the year, when prevalence is higher (May and June).

We do not expect that diarrhea prevalence will change with Child Survival interventions, since actions in this respect concentrate in strengthening educational messages for mothers to learn how to manage acute diarrhea episodes appropriately. This involves the appropriate management of liquids including Oral Rehydration Therapy (ORT), continued feeding during the child's illness and appropriate management during recovery. The most important indicators of diarrhea diseases management are discussed below:

- Continuity of breastfeeding during diarrhea.

Children with diarrhea that as treatment for the diarrhea episode have an increased chance of developing complications and require longer recovery periods.

Continued breastfeeding during diarrhea is helpful in recovery. We found that 88.3% of mothers do it. This positive practice indicates that complications of diarrhea will continue to be reduced, especially death, and hence childhood mortality rateswill decrease. This rate has fallen considerably in Honduras in the last twenty years.

- Continuity of liquids during diarrhea

Final Goal: 85% of children who had diarrhea in the two weeks before the survey received liquids in the same amount or more than usual. **Result:** Achievement of this goal is **80.4%**, a percentage that is near the goal of 95%. This practice increased from 64.1% at the beginning of the project.

- Continuity of feeding during diarrhea

Final Goal: 71.0% of children with diarrhea in the last two weeks before the survey are receiving the same quantity of food or more food than usual. **Result:** Achievement of this goal is 62.2%, a percentage near the goal of 88%. This practice increased from 46.3% in the baseline to the current levels, establishing a difference of 15.9%.

- Use of Oral Rehydration Therapy

The indicator of ORT goes further than just Oral Rehydration Salts (Litrosol) use, because it also includes treatment with domestic remedies, such as grain, porridge, teas, and other liquids.

Final Goal: 60.0% of children with diarrhea in the last two weeks before the survey received Oral Rehydration Therapy. **Result:** Of the children surveyed, 69.2% received ORT as part of the management of acute diarrhea episodes.

- Recognition of dehydration signs

Recognition of dehydration signs as danger signs that require medical treatment increased since the baseline. This means that we started with 64.0% of mothers that recognized one dehydration sign and are now showing that 82.7% of mothers recognize at least one sign. **Final Goal:** 75.0% of mothers recognize at least one dehydration sign. **Result:** As mentioned before, achievement of this goal was 82.7%. The most frequent dehydration sign recognized was "sunken eyes". Thirst and dry mouth are two signs that appear prematurely in diarrhea episodes. Recognition of these signs by mothers is low. The principally recognized sign was not modified during the project's implementation.

The percentage of mothers that sought advice or treatment for their children with diarrhea was 67.5%. Advice or treatment was given mostly by the Health Center in 54.4% and Health Monitor in 40.5% of the cases. The presence of Monitors was extremely helpful, considering that at the beginning of the project only 6.6% of mothers consulted a Health Volunteer.

The tradition of using medicine against diarrhea for management of the illness has diminished from 72.0% in the baseline to 41.0% currently. This last data is similar to the one found at the national level by the ENESF-1996 which was of 38.2%. It should be mentioned that, in our survey, the term "against diarrhea" is wider than the concept used in the ENESF since we grouped in this category all the mothers that gave their children any kind of pill (anti-diarrheaic or antibiotic).

The SOH has eliminated from the basic medicine chest the use of medicine against diarrhea for management of the illness. In our experience, we found that diminishing the levels of self medication against diarrhea is very difficult, mostly because of massive propaganda through radio station that have national coverage, where the quality of these medicines are announced. Nevertheless, basic messages given to mothers through the Monitors have produced the expected results.

- Facilities to get Oral Rehydration Salts (Litrosol)

At the end of CSP the number of Health Monitors trained and incorporated to the health system, meaning that they have been added to the community team of the SOH, is 295. This allowed a huge improvement in this because the Health Centers have provided Litrosol to the communities in a systematic way through this new community web. The **Final Goal** was to**:** Increase to 85.0% the percentage of mothers that have community facilities in which Litrosol can be obtained. **Result:** This goal was achieved up to 94.0%.

The last result can be demonstrated by analyzing that in the KPC survey of Lajas, the two principal reasons given by mothers for why it is difficult to get Litrosol were that there was no distributor were they live (45.5%) and because there was no one to distribute it (35.2%). This last reason was reduced to 22.2% although the former increased to 50.0%.

Although our project did not employ an educational focus to achieve an increase in the consumption of safe water, institutionally an effort has been made to develop water projects that allow some communities to consume clean water. Water filters activated by solar energy have also been provided to the majority of the Health Centers with whom we coordinate, making available safe water to other part of the population.

In analyzing data of how the interviewed population purify their water, we found that the group that does not use any form of water purification, meaning that they drink non-safe water, changed from 37.7% at the beginning of the project to 15.9% currently. This data is relevant it reveals a direct association between contaminated water consumption and the frequency of gastrointestinal infections that threaten children's lives and/or cause chronic diarrhea with subsequent malnutrition.

4. Acute Respiratory Infections (ARIs)

With the reduction of deaths by dehydration and immunopreventable diseases, acute Respiratory infections (ARIs) have emerged as the first cause of death in children less than five years old. Children usually have between 5 and 10 ARI episodes per year, with the majority self-limited because of their viral etiology. Some of these cases can be pneumonia and if not treated with antibiotics in a timely fashion, will invariably cause death.

The project's emphasis in this intervention was not ARI prevention but assuring that mothers of children less than 5 years old can identify early pneumonia signs and seek immediate medical treatment. Teaching symptom-identification is done through educational communication with mothers and encouraging the seeking out of treatment is assured by: (1) A Monitor that manages pneumonia cases in the community; (2) Other Monitors assisting mothers in detection of increased Respiratory frequency and intercostal retractions as pneumonia signs and then refer children with these signs to the corresponding level of medical attention on time.

In the actual survey we found that Acute Low Respiratory Infections prevalence (probable pneumonia) is 20.9%, a percentage that is more reasonable than the one found in the KPC of Humuanda and Lajas (55.3% and 47.3% respectively), and very similar to that found by the ENESF-1996 for RS 2 (17.2%).

The percentage of mothers reporting intercostal retractions in their children besides increased respiratory frequency was lower (12.3%) than that found in the baseline of Lajas (31.3%). This reduction can be explained by the fact that mothers currently identify respiratory frequency as a an early sign of pneumonia. Intercostal retractions, which occur later in the illness, have actually diminished as a motive for consultation.

Mother's knowledge of pneumonia signs requiring medical attention remains high, as described by the following goal analysis. **Final Goal:** 70.0% and 20.0% of mothers recognize increased respiratory frequency (RF) and intercostal retractions as pneumonia signs. **Result:** 78.7% recognize RF as a pneumonia sign and 38.2% recognize retractions. As these data indicate, the final goal was exceeded, meaning that mothers are currently more prepared to know when their children are ill and need medical treatment.

Nevertheless, it is not sufficient that mothers know how to recognize pneumonia. The next step is for them to know what to do when their children have pneumonia. To achieve this objective, an educational component was developed through Health Monitors. Achievements can be seen in the following data analysis. **Final Goal:** 60.0% of mothers of children showing signs compatible with pneumonia seek medical treatment. **Result:** This goal reached 84.1%, due to improved access to pneumonia treatment by having a Health Monitor trained in treatment of the disease available in the community.

The number of mothers that consulted the Health Monitor trained for pneumonia treatment increased from 4.2% at the beginning of the project to 24.1%. In contrast, people that consulted a private clinic were reduced from 22.9% at the beginning of the project to 13.0%. This means that having a community post where effective treatments are given is advantageous for families, not only for child's health but also by saving time, effort, and money for the entire family.

5. Family Planning

Using a method for Family Planning is a determinant factor that influences the fertility of couples and constitutes an important factor in decreasing reproductive risk of women in their reproductive years.

According to data of ENESF-1996, Sanitary Region 2 has the lowest rate of Family Planning method use (36.9%, including modern and natural methods). Use is diminished in rural areas, so it is common to find low use rates such as the ones described above in those areas.

According to project's baseline data, knowledge and practices of modern methods of Family Planning in the influence area are low. However, after four years of continuous work, the following achievements have been made:

Final Goal: Increase up to 25.0% the percentage of women that do not want to have another child in the next two years who manage to avoid pregnancy by using a modern Family Planning method. **Result:** This goal was achieved in 24.0% of the group, with an added 96% achievement rate according to the end goal.

Final Goal: Increase up to 40.0% the percentage of mothers that recognize at least three modern methods of Family Planning. **Result:** This goal was achieved up to 66.4%. This was reached by procuring that the Monitor in each community had a catalog of Family Planning modern methods that could be seen and touched, not just pictures and descriptions.

The attempt to increase Family Planning coverage at the national level is still a challenge, since the perspective in the last twenty years is that coverage has been increased approximately 5% for every 5 years.

V. BIBLIOGRAPHY

1. World Health Organization. Interview by Household Visiting to Determine Morbidity and Mortality by Diarrhea and Treatment Practices. Manual. Génova, 1989.

2. Johns Hopkins/PVOCSSP. Trainer's Guide for PVO Child Survival Project, Rapid Knowledge, Practice and Coverage (KPC) Surveys. Baltimore, Maryland, May 1994.

3. Ministry of Health. Health Situation and Priorities 1994-1997. Tegucigalpa, Honduras, 1974.

4. Honduras National Interview of Epidemiology and Family Health. Final Report 1996.

5. Mercy Corps / Proyecto Aldea Global, "Results that Last". Honduras Child Survival Project. First Annual report.

6. Mercy Corps / Proyecto Aldea Global, Knowledge, Practice and Coverage Baseline Survey Report Child Survival Project VIII.

7. Project HOPE, Baseline Survey in Knowledge, Practices and Coverage in Child Survival, Final Report, 1995.

Attachment 1

PROANDECTO ALDEA GLOBAL

Child Survival Project

(QUESTIONNAIRE OF KNOWLEDGE, PRACTICES AND COVERAGE (KPC)

INTERVIEWER: **Remember that all questions should be directed to Mothers with children less than 2 years old (Less than 24 months old).**

GEOGRAPHICAL IDENTIFICATION

Name of the Community: _____ Date of interview ___/___/___
Date Month Year

Name of Interviewer: _____

Name of the Supervisor: _____

MOTHER AND CHILD INFORMATION

1a. Name of the mother_____

1b. Mother's age____ ____

2a. Name of the child _____

2b. Date of birth of the child ___ / ___ / ___ 2c. Age of the child ___ ___ (months)
Date Month Year

3. What was the last grade you attended in school?
*(**Circle the mother's answer**)*

1. None
2. Elementary; not used to reading
3. Elementary; used to reading
4. Secondary or higher

4. Do you work out of your house? *(**Circle the mother's answer**)*

1. Yes
2. No --→ **GO TO QUESTION 6**

5. Who takes care of _(Name of the child) while you work or you're out of your house?
(INTERVIEWER: It's possible that she mentions various answers. Circle them as she says them).

a. The mother takes the child

b. Husband or partner
c. Older Siblings
d. Near relatives
e. Friends or neighbors
f. Maid
g. Day care center
h. Others (specify) _____

6. Do you have any work that yields economic profit?

(INTERVIEWER: It's possible that she mentions various answers. Circle them as she says them).

a. None ------> **GO TO QUESTION 7**
b. Handicrafts, weavings, rugs, etc.
c. Harvest cutters
d. Sale of agricultural products
e. Sale of dairy products
f. Works as a maid
g. Store, salesperson
h. Salaried worker
i. Other job (specify)_____

BREASTFEEDING

(INTERVIEWER: In each of the questions, circle the answers given by the mother).

7. Are you breastfeeding_____(Name of the child)?

1. Yes-------> **GO TO QUESTION 9**
2. No

8. Have you ever breast-fed (Name of the child)?

1. Yes
2. No-------> **GO TO QUESTION 10**

9. After birth, when did you started breastfeeding ___(Name of the child)__for the first time?

1. During the first hour after birth
2. Between the first hour and 8 hours after birth
3. More than 8 hours after birth
4. Doesn't remember/ doesn't know

10a. Are you giving the child water, coffee, chamomile tea, lemon tea, anis, canella, orange or eucalyptus to (Name of the child)?

1. Yes

2. No
3. Doesn't know/doesn't answer

10b. Are you giving cow milk, goat milk, soy milk, or canned milk to (Name of the child)?

1. Yes
2. No
3. Doesn't know/doesn't answer

10c. Are you giving (Name of the child) blended potatoes, pumpkin, sweet potatoes, mango, porridge, or soups?

1. Yes
2. No
3. Doesn't know/doesn't answer

10d. Are you giving (Name of the child) fruits?

1. Yes
2. No
3. Doesn't know/doesn't answer

10e. Are you giving(Name of the child) carrots, pumpkin, mango, melon or papaya?

1. Yes
2. No
3. Doesn't know/doesn't answer

10f. Are you giving (Name of the child) green leafy vegetables such as mustard, celery, coriander, radish, yucca or beet?

1. Yes
2. No
3. Doesn't know/doesn't answer

10g. Are you giving (Name of the child) chicken, fish or meat?

1. Yes
2. No
3. Doesn't know/doesn't answer

10h. Are you giving (Name of the child) beans, beans with rice, soy or gandul?

1. Yes
2. No
3. Doesn't know/doesn't answer

10i. Are you giving (Name of the child) eggs, cheese or quesillo?

1. Yes
2. No
3. Doesn't know/doesn't answer

10j. Are you adding green leafy vegetables like mustard, celery, coriander, radish leaves, anduca, or beet to the food of __(Name of the child)?

1. Yes
2. No
3. Doesn't know/doesn't answer

10k. Are you adding honey, sugar or sweeteners to the food of __(Name of the child)?

1. Yes
2. No
3. Doesn't know/doesn't answer

10l. Are you adding butter or oil to the food __(Name of the child)?

1. Yes
2. No
3. Doesn't know/doesn't answer

11. At which age should the mother start supplementary food in addition to breastfeeding?

1. Before 4 months
2. Between 4 and 6 months
3. At 6 months or older
4. Doesn't know

12. What food would you give to the child besides breast milk?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. Doesn't know**-------> GO TO QUESTION 13**
b. Fried food or add oil to the food
c. Food rich in iron (viscera, meat, green leafy vegetables)
d. Food rich in vitamin A (vegetables with yellow pulp or green leaves, eggs)
e. Other food (specify)_____

13. Do you know what vitamin helps to prevent blindness?

1. Vitamin A
2. Doesn't know or gives another answer

14. Do you know what food contains Vitamin A to prevent blindness?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. doesn't know or answers another thing**-------> GO TO QUESTION 15**
b. Vegetables with green leaves
c. Dark yellow or orange vegetables and fruits
d. Fish, meat or viscera
e. Breast milk
f. Egg yolk

GROWTH CONTROL

15 . Does (Name of the child) have his/her growth control card or graphic for weight control?
1. Yes, he/she has the card--------> (**INTERVIEWER: You must see the card**)
2. He/she lost the card--------> **GO TO QUESTION 16d**
3. No, he/she never had the card----> **GO TO QUESTION 16d**

16. ***INTERVIEWER: See the growth graphic of the child and register the following information: Has the child been weighed in the last 6 months?***

1. Yes
2. No-------→ **GO TO QUESTION 16d**

16a. ***See the growth graphic and verify that the weight tendency of (Name of the child) has been graphed in the last 6 months.***

1. Yes ------→ **GO TO QUESTION 16c**
2. No------→ **CONTINUE**

16b. What are the reasons why there is no graphic of the weight tendency of (Name of the child)

1. It has weight measures registered but no tendency graphic
2. Only has one weight measure registered------→ **GO TO QUESTION 16d**
3. Weight measurements are isolated----------→ **GO TO QUESTION 16d**

16c. **INTERVIEWER: Verify by watching the weight graphic, how is (Name of the child)´s growth.**

1. Adequate growth
2. Inadequate growth
3. Illegible tendency

16d. What would you do if your child was not gaining weight?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

1. Take the child to the Health Center
2. Follow advice given by the Monitor.

3. Increase the child's feeding times per day.
4. Give food with high energy content (Honey, sugar, greases)
5. Doesn't do anything / Doesn't know
6. Others (specify)_____

17. ***Check the vaccine control and write Yes, (Name of the child) has received any doses of Vitamin A.***

1. Yes
2. No----------→ **GO TO QUESTION 18**
3. Doesn't have vaccination card-----→ **GO TO QUESTION 18**

17a***. Write in the space the doses of Vitamin A that (Name of the child) has received.***

VITAMIN A

DATE: (1) _____/_____/_____ (2) _____/_____/_____
Date Month Year Date Month Year

(3) _____/_____/_____ (4) _____/_____/_____
Date Month Year Date Month Year

DIARRHEA DISEASES

18. Has (Name of the child) had diarrhea in the last two weeks?
    1. Yes
    2. No--------> **GO TO QUESTION 25**
    3. doesn't know--> **GO TO QUESTION 25**

19. ***(INTERVIEWER: If mother is not breastfeeding anymore (see question 7), circle answer 5 and go to #20. Otherwise, read choices 1 to 4 to the mother and circle the answer).***

    During the diarrhea episode of (Name of the child)did you breast feed the child **. . . . .**
    1. More than usual?
    2. Same as usual?
    3. Less than usual?
    4. Stopped breastfeeding completely?
    5. Child wasn't breastfeeding anymore

20. During the diarrhea episode of (Name of the child) did you give the child other liquids...?
    (READ THE CHOICES TO THE MOTHER)
    1. More than usual?
    2. Same as usual?
    3. Less than usual?
    4. Stopped giving liquids completely?
    5. The child only was breast-fed

21. During the diarrhea episode of (Name of the child)did you keep giving the child blended food, porridges, purees or other solid foods... **(READ HER THE CHOICES)**

    1. More than usual?
    2. Same as usual?
    3. Less than usual?
    4. Stopped giving food completely?
    5. The child only was breast-fed

22. When (Name of the child) had diarrhea, what did you give the child?
    (INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

    a. Nothing**--------> GO TO QUESTION 23**
    b. Litrosol
    c. Domestic Rehydration salts
    d. Rice porridge or cornstarch
    e. Tea or other liquids
    f. Medicine against diarrhea or antibiotics
    g. Others (specify)_____

23. When (Name of the child) had diarrhea, did you seek out treatment?

    1. Yes
    2. No**--------> GO TO QUESTION 25**

24. Who did you ask for advice or treatment for _____(Name of the child)__´s diarrhea?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. Public Hospital
b. Health Center
c. Private Clinic or Doctor
d. Drug store
e. Community Health Volunteer
f. Traditional Medicine Man
g. Traditional Birth Attendant
h. Relatives or Friends
i. Others (specify)_____

25. If ____(Name of the child)__had diarrhea, what symptoms or signs would let you know that the child is dehydrated?

(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. Doesn't know**---------> GO TO QUESTION 26**
b. Restless or irritable
c. Dry mouth
d. Sunken eyes
e. Cries without tears
f. Thirsty
g. Urinates less
h. Skin fold (turgor)
i. Others (specify)_____

26. If (Name of the child) had diarrhea, what would be the most important thing you would do?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. Doesn't know--------->**GO TO QUESTION 27**
b. Quickly start giving liquids
c. Give the child more liquids than usual
d. Give the child less food but more frequently
e. Prepare litrosol appropriately and gives it to the child
f. Take the child to the Hospital or Health Center
g. Give more food after the diarrhea episode
h. Stop liquids
i. Stop food
j. Other (specify)_____

27. What important things should the mother do when the child is recovering from diarrhea?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. Doesn't know--------> **GO TO QUESTION 28**
b. Give food to the child more frequently
c. Give more food than usual
d. Give high caloric food
e. Other (specify)_____

28. Is it easy for you to get Litrosol or Oral Rehydration Salts in your community?

1. Yes-------→**GO TO QUESTION 29**
2. No
3. Doesn't know

28 a. Why is it difficult to get Litrosol or Oral Rehydration Salts?

1. No stock in the Health Center/Health Center closed
2. Lives far away from the distributor
3. In the community there isn't a person that distributes them
4. Others (specify)_____

29. How do you or your family purify water for drinking?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. None
b. Boiling
c. Adding chlorine
d. Filtering
e. Other (specify) _____

RESPIRATORY DISEASES

30. Has (Name of the child) been sick with cough or breathing difficulty in the last two weeks?

1. Yes
2. No--------> **GO TO QUESTION 35**

31. Did (Name of the child) breath become ragged or faster than usual when he/she had a cough?

1. Yes
2. No---------> **GO TO QUESTION 35**
3. Doesn't know---> **GO TO QUESTION 35**

32. When (Name of the child) was breathing raggedly, did you saw intercostal retractions?

1. Yes
2. No---------→ **GO TO QUESTION 35**
3. Doesn´t know---→ **GO TO QUESTION 35**

33. Did you seek advice or treatment when (Name of the child) had trouble breathing?

1. Yes
2. No----------> **GO TO QUESTION 35**

34. Who did you consult for the cough or breathing difficulty treatment for (Name of the child)?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. Public Hospital
b. Health Center
c. Private Clinic or Doctor
d. Community Health Volunteer
e. Traditional Birth Attendant
f. Traditional Medicine Man
g. Drug Store, Other Stores
h. Relatives or Friends
i. Other (specify)_____

35. What are signs or symptoms of Respiratory infection that would make you take (Name of the child) to a Health Center or Hospital?
(INTERVIEWER: It's possible that the mother gives various answers. Circle them as she says them).

a. Doesn't know--------> **GO TO QUESTION 36**
b. Ragged Breathing / High respiration rate
c. Retractions under its costal bones

d. Has lost appetite
e. Has fever or sweats
f. Cough
g. Others (specify)_____

FAMILY PLANNING

36. What Family planning methods do you know?
(INTERVIEWER: Circle the methods she knows without you suggesting anyone)

a. None-------→ **GO TO QUESTION 37**
b. Tubal occlusion (Female Surgery)
c. Vasectomy (Male Surgery)
d. Injectables
e. Contraceptive Pills
f. Intrauterine Dispositive (IUD)
g. Diaphragm
h. Condom
i. Foam, Jelly, Ovules
j. Amenorrhea by breastfeeding
k. Natural Method: Rhythm (Billings)
l. Abstinence
m. Coitus Interruptus
n. Others (specify)_____

37. Are you currently pregnant?

1. Yes-------> **END THE INTERVIEW**
2. No

38. Would you like to have another child in the next two years?
1. Yes -------> **END THE INTERVIEW**
2. No
3. Doesn't know

39. Are you or your couple using any Family planning method?
1. Yes
2. No ------→ **END THE INTERVIEW**
3. Doesn't know → **END THE INTERVIEW**

40. What is the principal method that you or your partner are using to prevent pregnancy?

1. Tubal occlusion (Women Surgery)
2. Vasectomy (Men Surgery)
3. Injectables
4. Contraceptive Pills
5. Intrauterine Dispositive (IUD)
6. Diaphragm
7. Condom
8. Foam, Jelly, Ovules
9. Amenorrhea by breastfeeding
10. Natural Method: Rhythm (Billings)
11. Abstinence

12. Coitus Interruptus
13. Other (specify)_____

SHOW GRATITUDE AND SAY GOODBYE.

ATTACHMENT 3

Mercy Corps Internacional/Proyecto Aldea Global

Child Survival Project VIII
Knowledge, Practices and Coverage in Child Survival Survey

Frequency Tables

I. MOTHERS AND CHILDREN GENERAL INFORMATION

Table 1: Age of mothers by age groups

Age of mother	Frequency	Percentage
15 – 17	21	7.0
18 – 35	235	78.3
36 – 48	44	14.7
Total	**300**	**100.0**

Table 2: Age of children by age groups.

Child's age	Frequency	Percentage
0 - 5	83	27.7
6 – 11	77	25.7
12 – 23	140	46.6
Total	**300**	**100.0**

II. MOTHER'S EDUCATION / OCCUPATION

Table 3: Mother's highest level of education attended

Mothers Education	Frequency	Percentage
None	50	16.7
Primary / doesn't read	56	18.6
Primary / reads	173	57.7
Secondary / Superior	21	7.0
Total	**300**	**100.0**

Table 4: Place where mothers do their job.

Category	Frequency	Percentage
Inside the house	251	83.7

Outside the house	49	16.3
Total	**300**	**100.0**

Table 5: Person that takes care of the child while the mother is working (Multiple Choice Answers, n = 49).

Persons that take care of the child	Frequency	Percentage
The mother takes the child with her	11	22.4
Husband/ Partner	0	0.0
Older siblings	16	32.7
Relatives	25	51.0
Neighbors / friends	2	4.0
Made	1	2.0
Day Care Center	0	0.0

III. BREAST-FEEDING AND CHILD FEEDING

Table 6: Mothers currently breastfeeding their child.

Breastfeeding their child	Frequency	Percentage
Yes	232	77.3
No	68	22.7
Total	**300**	**100.0**

Table 7: Mothers not currently breastfeeding a child but did before.

Breast fed a child before	Frequency	Percentage
Yes	64	94.1
Never	4	5.9
Total	**68**	**100.0**

Table 8: Time in which the child was nursed for the first time after delivery.

Child breast fed for the first time	Frequency	Percentage
1 hour after birth	193	65.2
1 to 8 hours after birth	40	13.5
More than 8 hours after birth	61	20.6
Doesn't remember	2	0.7
Total		**100.0**

	296	

Table 9: Exclusive breastfeeding in children under 6 months.

Category	Frequency	Percentage
Exclusive Breastfeeding	13	15.7
Total of children 0 – 5 months old	83	100.0

Table 10: Distribution of children by age and type of food they consume (Multiple Choice Answers n=300)

Type of Food	1	2	3	4	5	6	7	8	9	10	11	12	Total Children
Child's Age	%	%	%	%	%	%	%	%	%	%	%	%	
0-3 months	69.6	42.9	16.1	14.3	19.6	3.6	5.4	10.7	12.5	5.4	93.1	10.7	56
4-5 months	88.9	40.7	59.3	48.1	4o.7	14.8	25.9	44.4	48.1	25.9	70.4	48.1	27
6-9 months	96.5	54.4	84.2	75.4	71.9	12.3	61.4	86.0	86.0	38.6	86.0	75.4	57
10-12 months	100	39.4	90.9	78.8	69.7	15.2	81.8	97.0	93.9	39.4	87.9	87.9	33
13-23 months	99.2	48.4	92.1	93.7	86.6	33.9	93.7	96.9	98.4	44.6	91.3	94.5	127
													300

References for Table 10

1. Liquid food
2. Cow milk, soy milk, etc.
3. Soup, purée, porridge.
4. Fruits.
5. Carrots, mango, melon, papaya, plantain, sweet potatoes
6. Spinach, mustard, coriander, celery, etc.
7. Meat, chicken, fish.
8. Tender beans, rice and beans, soy.
9. Eggs, cheese or quesillo.
10. Adding green leaves rich in Vitamin A.
11. Honey, sugar or candy of unrefined sugar.
12. Butter or oil.

Table 11: Mother's knowledge about the age at which a child should start receiving food besides breastfeeding.

Starting age	Frequency	Percentage
Before 4 months	47	15.6
Between 4 and 6 months	53	17.7
At 6 months or after	192	64.0
Doesn't know	8	2.7
Total	**300**	**100.0**

Table 12: Food that she would give to the child besides breastfeeding (Multiple Choice Answers, n = 300).

Type of food	Frequency	Percentage
Doesn't know	15	5.0
Add oil to the food	58	19.3
Rich Vit. A food	212	70.7
Rich in iron food	88	29.3
Others (*)	171	57.0

Table 13 Mothers that recognize that Vitamin A prevents blindness.

Vitamin that prevents blindness	Frequency	Percentage
Vitamin A	47	15.7
Doesn't know/doesn't answer	253	84.3

Table 14: Knowledge of the mother about food containing Vitamin A (Multiple Choice Answers, n=300).

Type of food	Frequency	Percentage
Doesn't know or others	235	78.3
Vegetables with dark green leaves	6	2.0
Vegetables and dark yellow fruits	55	18.3
Meat / fish	19	6.3
Breast milk	1	0.3
Egg yolk	4	1.3

IV. GROWTH CONTROL

Table 15: Children distribution according to growth card presentation or growth measurement graphic.

Carnet / control graphic	Frequency	Percentage
It has	44	14.6
Was lost	5	1.7
Never had	251	83.7
Total	**300**	**100.0**

Table 16a: Children weighed twice in the last six months.

Category	Frequency	Percentage
Were weighed	1	2.3
Were not weighed	43	97.7
Total	**44**	**100.0**

Table 16b: Things mothers would do if the child doesn't gain weight (Multiple Choice Answers, n=300)

Category	Frequency	Percentage
Take the child to the Health Center	195	65.0
Follow Monitors advice	5	1.7
Gives food more times per day	59	19.7
Gives high caloric food	25	8.3
Doesn't do anything / doesn't know	21	7.0
Others	99	33.0

Table 17: Children that have received any Vitamin A doses

Category	Frequency	Percentage
Has received	186	62.0
Has not received	83	27.7
No available register	31	10.3

Total	**300**	**100.0**

Table 17a: Children that have received any vitamin A doses.

Child's Age	Number of Vitamin A doses received				Total Children
	1	2	3	4	
0- 5 months	2 (2.4%) *	0	0	0	**83**
6-11 months	55(71.4%)	2(2.6%)	0	0	**77**
12-23 months	129(92.1%)	59(42.1%)	12(8.6%)	0	**140**
Total	**184(84.8%) ****	**59(42.1%) *****	**12(8.6%)**	**0**	**300**

Note: * Calculations of these percentages were based on total children of the corresponding age.

**** Calculations of total percentages based on total children between 6 and 23 months old.**

***** Percentages calculated from children between 12-23 months old.**

V. DIARRHEA DISEASE CONTROL

Table 18: Children with diarrhea during the last two weeks.

Had diarrhea	Frequency	Percentage
Yes	132	44.0
No	165	55.0
Doesn't know	3	1.0
Total	**300**	**100.0**

Table 19: Mothers that breast-fed their child with diarrhea.

Breast- fed during diarrhea	Frequency	Percentage
More than usual	20	15.2
Same as usual	67	50.8 14.4
Less than usual	19	0.0
Stopped breastfeeding	0	19.6
Child wasn't breastfeeding	26	
Total	**132**	**100.0**

Table 20: Mothers that gave liquids to the child with diarrhea

Liquids during diarrhea	Frequency	Percentage
More than usual	20	15.1
Same as usual	55	41.7
Less than usual	20	15.1
Stopped liquids completely	22	16.7
Only breastfeeding	15	11.4
Total	**132**	**100.0**

Table 21: Mothers that gave blended food or porridges to the child during a diarrhea episode.

Food during diarrhea	Frequency	Percentage
More than usual	4	3.0
Same as usual	46	34.8
Less than usual	31	23.5
Stopped feeding completely	27	20.5
Only breastfeeding	24	18.2
Total	**132**	**100.0**

Table 22: Treatment given to the child during diarrhea (Multiple Choice Answers, n = 132).

Treatment	Frequency	Percentage
None	12	9.1
Litrosol	40	30.3
Domestic Rehydration Salts	2	1.5
Cereal Porridge	5	3.8
Teas or other liquids	18	13.6

Medicine (ant-diarrheic medicine)	95	72.0
Others (*)	13	9.8

Table 23: Sought advice or treatment for child's diarrhea.

Seeked for advice	Frequency	Percentage
Yes	76	57.6
No	56	42.4
Total	**132**	**100.0**

Table 24: Person that gave advice or treatment. (Multiple Choice Answers, n = 76).

Gave advice or treatment	Frequency	Percentage	
Public Hospital	1	1.3	
Health Center	37	48.7	
Private Clinic or Doctor	10	13.1	1.3
Drug Store	1	6.6	
Health Volunteer	5	3.9	
Traditional Medicine Man	3	1.3	
Traditional Birth Attendant	1	34.2	
Relatives/ friends	26	3.9	
Others	3		

Table 25: Distribution of mothers according to recognition of dehydration signs (Multiple Choice Answers, n=300).

Dehydration Signs	Frequency	Percentage
Doesn't know	108	36.0
Restless / irritable	20	6.7
Dry mouth	38	12.7
Sunken eyes	122	40.7
Cries without tears	21	7.0
Thirsty	28	9.3
Urinates less	11	3.7
Skin fold (turgency)	34	11.3
Others (*)	94	31.3

Table 26: Distribution of mothers according to the most important thing they would do if the child had diarrhea. (Multiple Choice Answers, n = 300).

What she would do	Frequency	Percentage
Doesn't know	24	8.0
Quickly start giving liquids	35	11.7
More liquids than usual	14	4.7
Less food but more frequently	5	1.7
Prepares and gives Litrosol	130	43.3
Takes the child to the hospital /Health Center	154	51.3
More food after diarrhea	4 0	1.3
Stops liquids	0	0.0
Stops feeding	92	0.0
Others (*)		30.7

Table 27: Distribution of mothers according to what they would do while the child is recovering from diarrhea (Multiple Choice Answers, n = 300).

What she would do	Frequency	Percentage
Doesn't know	101	33.7
Give food more frequently	76	25.3
Give more food than usual	49	16.3
Give high caloric food	14	4.7
Others	102	34.0

Table 27/Others

Table 28: Distribution of mothers according to their facility to get litrosol in their communities.

Has facilities	Frequency	Percentage
Yes	212	70.7
No	83	27.7
Didn't answer	5	1.6
Total	**132**	**100.0**

Table 28a: Reasons why some mothers have difficulty getting litrosol.

Reasons	Frequency	Percentage
No stock in the Health Center	8	9.1
Lives far away from the distributor	31	35.2
There isn't a person that distributes litrosol	40	45.5
Others	9	10.2
Total	**88**	**100.0**

Table 29. Ways in which mothers purify water for drinking

Ways of purifying water for drinking	Frequency		Percentage
None	113	113	37.7
Boiling	101		37.7
Adding Chlorine	1		33.7
Filtrating	1		0.3
Others			0.3
Total	**132**		**100.0**

VI. RESPIRATORY DISEASES

Table 30: Children with cough or breathing difficulty in the last two weeks.

Cough or breathing difficulty	Frequency	Percentage
Yes	183	61.0
No	117	39.0
Total	300	100.0

Table 31: Children suspicious of pneumonia (Cough, breathing difficulty, breathing at a higher rate or ragged breathing).

Suspicious of pneumonia	Frequency	Percentage
Yes	142	77.6
No	41	22.4
Total	**183**	**100.0**

Table 32: Children with high Respiratory frequency and intercostal retractions.

Intercostal retractions	Frequency	Percentage
Yes	94	66.2
No	45	31.7
Doesn't know	3	2.1
Total	**142**	**100.0**

Table 33: Mothers that sought advice or treatment for the Respiratory problem of the child (Children suspicious of pneumonia).

Seeked for advice or treatment	Frequency	Percentage
Yes	96	67.6
No	46	32.4
Total	**142**	**100.0**

Table 34: Person consulted for treatment of cough and/or breathing difficulty. (Multiple Choice Answers, n = 96).

Person consulted	Frequency	Percentage
Public Hospital	2	2.1
Health Center	49	51.0
Private Clinic or Doctor	22	22.9
Health Volunteer	4	4.2
Traditional Birth Attendant	5	5.2
Traditional Medicine Man	3	1.0
Drug Store	11	11.5
Relatives / friends	15	15.6
Others (*)	3	3.1

Table 35: Respiratory infection symptoms mentioned by the mother that would make her take the child to a Health Center (Multiple Choice Answers, n =300)

Symptoms	Frequency	Percentage
Doesn't know	46	15.3
Breathing difficulty / high respiration rate	185	61.7
Intercostal retractions	10	3.3
Loss of appetite	16	5.3

Fever	107	35.7
Cough	115	38.3
Others (*)	54	18.0

VI. FAMILY PLANNING

Table 36: Family planning methods known by mothers (Multiple Choice Answers, n =300).

Principal Method	Frequency	Percentage
Tubal occlusion	26	8.7
Vasectomy	2	0.7
Injectables	45	15.0
Contraceptive pills	206	68.7
IUD	109	36.3
Diaphragm	3	1.0
Condom	121	40.3
Foam/ Jelly / ovules	3	1.0
Amenorrhea by breastfeeding	0	0.0
Rhythm	45	15.0
Abstinence	0	0.0
Coitus interruptus	1	0.3
Others	1	0.3

Table 36a: Women that recognize at least three modern methods for Family planning.

Category	Frequency	Percentage
Recognize	85	28.3
Doesn't recognize	215	71.7
Total	**300**	**100.0**

Table 37: Mothers currently pregnant.

Pregnant	Frequency	Percentage
Yes	33	11.0
No	267	89.0
Total	**300**	**100.0**

Table 38: Mothers that want to have another child in the next two years.

Want another child	Frequency	Percentage
Yes	55	20.6

No	195	73.0
Doesn't know	17	6.4
Total	**267**	**100.0**

Table 39: Mothers using a Family planning method.

Family Planning	Frequency	Percentage
Yes	65	30.7
No	147	69.3
Total	**212**	**100.0**

Table 40: Principal Family planning method used.

Principal method	Frequency	Percentage
Tubal occlusion	8	12.3
Vasectomy	0	0.0
Injectables	2	3.1
Contraceptive pills	12	18.5
IUD	18	27.7
Condom	3	4.6
Foam / Jelly / Ovules	0	0.0
Amenorrhea by breastfeeding	1	1.5
Rhythm	18	27.7
Abstinence	2	3.1
Coitus interruptus	1	1.5
Others	0	0.0
Total	**65**	**100.0**

Attachment 4

I. Practice and Coverage Indicators

Appropriate practices in child feeding.

1. Starting breastfeeding.

1.1. Percentage of children (less than 24 months) that were breastfed during the first hour after birth.

Numerator: Answer 1 of question 9.
Denominator: Total of mothers interviewed.

193/300*100 = **64.3%**

1.2 Percentage of children (less than 24 months) that were breastfed during the first 8 hours after birth.

Numerator: Answers 1 and 2 of question 9.
Denominator: Total of mothers interviewed.

(193+40)/300*100 = **77.7%**

2. Exclusive Breastfeeding.

Percentage of children less than 6 months exclusively breastfeeding.

Numerator: For children 0, 1, 2, 3, 4 and 5 months old: number of mothers that answered "no" to all questions 10a, 10b, 10c, 10d, 10c, 10d, 10e, 10f, 10g, 10h, 10i.
Denominator: Total children of 0, 1, 2, 3, 4 and 5 months old.

13/83*100 = **15.7%**

3. Starting Supplementary Food.

Percentage of children between 6 and 10 months old receiving solid and blended food.

Numerator: Number of mothers that answered "yes" at least in one of the questions 10c, 109d, 10e, 10f, 10g, 10h and 10i.
Denominator: Total children 6, 7, 8 and 9 months old.

55/57*100 = **96.5%**

4. Persistence of breastfeeding.

Percentage of children between 20 and 24 months old that are breastfeeding besides consuming solid and blended food.

Numerator: For children 20, 21, 22, and 23 months old, number of mothers that answered "Yes" to question 7.
Denominator: Total children 20, 21, 22 and 23 months old.

9/33*100 = **27.3%**

Management of Diarrhea Diseases.

5. Continuation of breastfeeding during diarrhea diseases.

Percentage of children less de 24 months with diarrhea in the last two weeks, that received the same or more amount of breast milk.

Numerator: Answers 1 and 2 to question 19.
Denominator: Number of answers "Yes" to question 18 minus number of answers 5 to question 19.

87/(132 - 75)*100 = 82.1**%**

6. Continuation of liquids during diarrhea diseases.

Percentage of children less than 24 months with diarrhea in the last two weeks that received the same or more amount of liquids.

Numerator: Answers 1 and 2 to question 20.
Denominator: Number of answers "Yes" to question 18 minus number of answers 5 to question 20.

(20 + 55)/(132 - 15) *100= **64.10%**

7. Continuation of food during diarrhea diseases.

Percentage of children less than 24 months with diarrhea in the last two weeks that received the same or more amount of food.

Numerator: Answers 1 and 2 to question 21.
Denominator: Number of answers "Yes" to question 18 minus number of answers 5 to question 21.

(4 + 46)/(132 - 24) * 100 **= 46.3%**

8. Oral Rehydration Therapy use.

Percentage of children less than 24 months with diarrhea in the last two weeks that were treated with Oral Rehydration Therapy.

Numerator: Number of mothers that answered question 22 with any of the answers b, c, d, or e.
Denominator: Number of answers "Yes" to question 18.

55/132*100 = **41.7%**

Pneumonia control.

9. Medical Treatment.

Percentage of mothers that sought medical treatment for their children less than 24 months, with cough, high frequency respiration and breathing difficulty in the last two weeks.

Numerator: Number of mothers that answered to question 34 with any of the following answers: a, b or c.
Denominator: Number of answers "Yes" to question 31.

(2 + 49 + 22) /142*100 = 51.4**%**

10. Use of Modern Contraceptive Methods.

Percentage of mothers that don't want more children or aren't sure, that are using modern contraceptive methods.

Numerator: Answers 1 a 9 to question 40.
Denominator: Answers 2 and 3 to question 38.

44/212*100 = **20.8%**

ATTACHMENT D

FINAL KPC SURVEY

ATTACHMENT E

FINAL HEALTH FACILITIES ASSESSMENT

FOR QUALITYOF CARE IN

PNEUMONIA CASE MANAGEMENT

QUALITY OF ATTENTION IN MANAGEMENT OF ACUTE RESPIRATORY INFECTIONS

FINAL SURVEY REPORT

Analysis and Report Elaboration
Lic.: Olivia Esperanza Pereira.

September 2001
Siguatapeque, Honduras

INDEX

I. INTRODUCTION

Most Honduran individuals and families of today see their health is deteriorating more each day. This is demonstrated by analyzing the behavior of indicators of status of life that correspond to environmental, physical, political and economical situation, as well as the real possibilities of accessing health services, and the quality, opportunity and equity in the services they offer.

The most important actions directed towards improvement of health, are with no doubt a responsibility of the health sector as well as others sectors that work for development and society in general. Conscious of this definition, Proyecto Aldea Global (PAG) pretends to give its quote of responsibility in the search of better life conditions, through implementation of the Child Survival Project (CSP) "Results that last", started in October 1997. Among the principal strategies of the project, community participation in self-care health practices and strengthening services of the Secretary's Office of Health (SOH) are stated.

CSP covers 159 communities, which are part of the influence region of the Health Areas No.1 (Comayagua) and No.3 (Siguatepeque), Sanitary Region No.2 of the SOH. Project interventions are:

- Integral Management of Child / Child Nutrition
- Acute Respiratory Infections – Pneumonia Control
- Diarrhea Diseases Control
- Spacing pregnancies

One of the activities stated in the project implementation is monitoring interventions during its different phases, so impact objectives can be reached at the end of the project.

To demonstrate project's achievements in relation to the final objective of **Improving quality of attention in pneumonia management in 14 Health Centers of the SOH,** a survey was accomplished in December 1999, in which aspects related with the quality of attention given by health personnel of the SOH, concerning to management of children with cough and/or respiratory difficulty, were identified. From these findings, an action plan was designed to approach the problems found.

Year and a half after the survey was accomplished and after the action plan for improvement of attention quality in management of ARIs was implemented, through this document which contains the final survey findings, we are letting know the results of those initiatives. Through analysis of indicators previously designed, we pretend to establish a comparison of findings before CSP intervention and after implementation of actions directed towards improvement of attention in SOH services.

The survey was developed in the following stages: Training the survey team, data collection, data entry, information analysis and final report.

Results of this survey will be shared with Managers of the Health Services of Areas No.1 and No.3; as well as with local teams, with the objective that in the future a concerted action plan could be designed directed to consolidate all those elements that still are limiting the quality of attention for children that assist to these services for cough or respiratory difficulty treatment.

II. BACKGROUND

In general, Hondurian population's health is determined by the circumstances that characterize its lifestyles, lifestyle conditions of particular groups and by individual ambit lifestyles. Hondurian society is complex, and inside this complexity illness and death are present, adopting different behaviors according to groups and historical moments.

In this frame, epidemiological profile turns complex, being children less than 5 years old one of the most affected age groups. According to the analysis of the Health Services System profile of Honduras (2001), acute respiratory infections stand out as the most important cause of children death, representing 23.5%. The National Interview of Epidemiology and Family Health (1996) registers that **"the highest mortality rates occur during the first year of life, caused by pneumonia",** this situation is similar in Sanitary Region No.2 and logically in the influence areas that the project covers.

With the intention of a positive influence in the panorama described formerly, CSP stated from the beginning different strategies focused on contributing to decrease infantile mortality rates caused by pneumonia. The principal strategies where: (1) training process directed to health and community personnel, with the purpose of early recognition of pneumonia signs and on time treatment; (2) permanent accompaniment of local teams to strengthen their response capacity.

The former is in harmony with the SOH objectives. Work points toward reduction of deaths caused by pneumonia, through an early diagnosis and standard case treatment included in the Integral Management of Childhood Illness (IMCI), which is a direct responsibility of personnel that gives attention in the Service Producing Units (SPUs), mostly attended by Auxiliary Nurses (AN).

In December 1999, the Baseline Survey of Attention Quality in Management of ARI was accomplished, as a diagnosis of how ARI cases in children less than 5 years old were managed. This survey stated it would determine the knowledge level of health personnel, about ARI case management, quality of mother counseling and installed capacity for case management. Important elements were rescued and were once more incorporated in the Action Plans designed together by the SOH and PAG.

This survey pretends to determine the level of impact / advance in solving the problems found. It's important to mention that interaction between SOH / PAG and Community Personnel was oriented towards actions sustainability, considering that offer of managing pneumonia cases would be in proportion to cases demanding attention in the institutional level as well as in the community level.

III. SURVEY OBJECTIVES

Objectives:

A. General

Knowledge of actual quality of attention given to children less than 5 years old with pneumonia that attend 14 Health Centers of Sanitary Region No.2, to establish if attention has improved in relation to 1999 survey findings.

B. Specific

1. Identify the number of providers trained in management of pneumonia cases.

2. Determine health provider's knowledge level in standard management of pneumonia cases.

3. Characterize pneumonia case management in children less than 5 years, which demand health services according the Attention Normative of the SOH.

4. Determine the quality of counseling given to the user in the Health Service.

5. Identify the satisfaction level of users of the Health Services.

6. Establish equipment and basic medicine availability for pneumonia case management of children less than 5 years old, in the participating SPUs.

IV. SURVEY METHODOLOGY DESIGN

1. Methodology

Methodology used in this survey is the same one used in December 1999, but we consider opportune to describe it:

- According to the proposed objectives, this is a quantitative and qualitative survey. The analysis unit is the selected SPU, having as key informants the health workers responsible of giving attention to users and the person that accompanies the child during the consultation in the surveyed Health Center.

- The sample was considered the same as in the previous survey; it was selected by convenience making a previous retrospective analysis of ARIs in the SPUs to be surveyed. It was determined that in the 14 establishments, new cases of children less than 5 years old with cough and/or respiratory difficulty that seeked for attention in the Health Services the day of the survey, would be observed. The minimum number of cases stated for the survey was three in each CESAR and five in each CESAMO.

- The analysis unit was the health personnel responsible of giving attention in the selected SPUs.

- Techniques used for data collection were: Observation of the consultation of children less than 5 year old with cough or respiratory difficulty, exit interview directed towards the mother/father or person in charge that during the survey was taking the child to the Center; inquiry of knowledge in management of ARIs directed to health personnel and review of installed capacity for pneumonia case management in the surveyed SPUs.

2. Instruments and Procedures

To accomplish the survey, 4 instruments were used, designed, reviewed, analyzed and validated in the first survey. These instruments are:

a. Consultation Observation Guide
b. Interview to Health Worker Guide
c. Exit interview to Mother/ Father or person in charge Guide
d. Check list t verify installed capacity

For Consultation Observation the following personnel was trained: two Professional Nurses of the SOH, PAG personnel formed by one Doctor, one Professional Nurse, one Information System Supervisor and one Leader for Laja´s team. All of them were part of the survey team that accomplished the different stages of the survey.

During the training workshop, instruments to be used in the survey were reviewed, analyzing each detail of the contents of each formulary. Practical exercises and field practices were done in the CESAMO of Barrio El Parnaso in Siguatepeque, trying not to include SPUs that would be subject of study afterwards in this survey.

A. Consultation Observation Guide

To fill in this guide, the investigator used the simple observation form in which it assumed the role of non-participating observer of the person that gave the service in the Health Center, with the purpose of having more objective data. The investigator didn't interfere in any way with the management and decisions of the Health Worker neither the mistakes observed were corrected.

The observer sat on the side of the worker when s/he was giving attention, so s/he could see and hear what s/he said and did. According to the pre-structured guide, in each case the following was observed: Physical examination of the child, way in which the worker asked questions to the mother / father about the child's condition, observation of signs and symptoms, illness classification, treatment and counseling for care and follow-up. Not taking into account the order in which the worker was doing it, the investigator marked the completed tasks, if there was any doubt, the investigator asked the worker what s/he was looking for and its conclusions.

Since the investigator took the role of non-participant observer, the clinical record was reviewed to clear data after the worker ended the child's attention, and outside the consultation place, the investigator evaluated the child and made its own classification.

B. Interview to Health Worker Guide

This interview was made with the objective of identifying the health worker's level of knowledge in ARIs case management, in relation to detection, diagnosis, treatment, counseling and case follow-up. So after the case observation in the surveyed Health Centers, the investigator interviewed each health worker that usually attend ARI cases in children.

C. Exit Interview to Mother/ Father/ person in charged of the child

The mother / father/ person in charged of the child was interviewed and was subject of observation during the consultation. This interview was made using simple and short generating questions with the purpose of getting the direct opinion of the person interviewed in relation to information/ communication that the Health Worker gave during the consultation. This allowed the identification of the quality of the counseling that it was given to the user and the degree of satisfaction that they had in the Health Service.

This interview was made until the mother ended all the consultation procedures and was done in an adequate place, without interruptions.

D. Check List to review installed capacity

In each Health Center surveyed, installed capacity for pneumonia cases management was reviewed through a check list, which considered fundamental elements for quality of attention. The following elements were analyzed: Infrastructure, human resources, minimum equipment, and availability of antibiotics for pneumonia management, materials necessary to give attention to the users. This allowed us to identify conditions that affect the Health Worker's capacity to develop its activities and give attention with quality.

3. Survey Stages

To achieve the proposed goals, this survey was done in various stages:

a. Coordination meetings with personnel from the Secretary's Office of Health (Area No.1 and 3) to share the survey process and concrete Health Areas participation in the process.

b. Training the survey team: In this stage, the instruments designed and used in the former survey were reviewed, discussed, validated and adapted. As mentioned before, 6 investigators were trained (SOH and PAG) for two days. During this process, emphasis was made in management of the instruments, as to have information of quality. For this reason, practices in filling the instruments were made.

c. Organization of survey groups: 2 teams were organized for data collection, one directed by the Consultant and other by the CSP Coordinator.

d. Data collection: Once the teams were organized, field trips were programmed, considering the criteria of critic route and the previous analysis of pneumonia incidence in the surveyed SPUs. This stage was don in 8 workable days, from July 30 to August 8, 2001. In Area No.3, 2 SPUs were surveyed each day, and in Area No.1, one SPU each day. (See Attachment No. 1).

e. Entering data / information analysis: The consultant was in charged of this stage, but CSP Coordinator reviewed the preliminary report with the purpose of making the observations needed in contribution to the final report.

4. Problems Found During Data Collection

In the data collection phase the problems found were: SPU closed (San Rafael, Jardines and Tierra Blanca); the day that the SPU of Palmital was visited, no children with respiratory problems consulted the service since the majority of users less than 5 years old had diarrhea diseases. For these reasons, the programmed period of five days was extended to eight, making another visit program to the SPUs pendent to complete data collection.

V. ANALYSIS OF MORBIDITY AND MORTALITY BY ARIs IN SPUs SURVEYED

❖ Analysis of Morbidity

Monthly records of the surveyed SPU´s were reviewed for ARIs (Trans-1 or Transmissible Illness Record, AT-2 or Daily Attention Record, and the weekly telegram), with the purpose of watching their behavior during the first semester of the year 2001. These data are presented by SPU of each Health Area (Area No.1 and No.2).

Pneumonia incidence in relation to the total cases of ARIs presented in children less than 5 years old, during the first semester of year 2001. SPUs of Area No.1, Health Region No.2.

No.	SPU	Total ARIs cases in < 5 years	Total pneumonia cases in < 5 years	Expected pneumonia cases First semester 2001	Pneumonia cases coverage	% of pneumonia in relation to other ARIs
1	San Rafael	54	31	11	281%	57.4%
2	Valle Bonito	38	1	16	6.2%	2.6%
3	La Libertad	311	62	105	59%	19.9%
4	Lajas	157	27	63	42.8%	17.1%
5	Buen Pastor	0	0	47	0%	0%
TOTAL		**60**	**121**	**242**	**50%**	**21.6%**

***** Source. AT- 2
****** Source: Trans-1 and Epidemiological Telegram.

According to registered statistics of the first semester of year 2001, pneumonia cases coverage in SPU´s was reviewed, expected cases and presented cases, as well as percentage of pneumonia in relation to the total ARIs attended.

The SPU of Area No.1 at CESAR level, San Rafael is the establishment with more cases reported; from the total ARIs attended, more than 50% are pneumonia cases: in relation to expected cases, it over reaches the proposed goal for the period. Following in order, CESAMO in Lajas has pneumonia coverage of 59%, although in relation to total ARIs, pneumonias are the fifth part of IRAs attentions. Stands out data from CESAR in Buen Pastor, were reports indicate, "zero" ARIs cases; it's important to investigate more to know if it's real that no cases attend the Center or on the other hand the person responsible of the Center has trouble with making diagnosis.

Incidence of pneumonia in relation with total ARIs cases presented in children less than 5 years old, during the first semester of year 2001. SPUs of Area No. 3, Sanitary Region No.2

No.	SPU	Total ARIs cases in < 5 years	Total pneumonia cases in < 5 years	Expected pneumonia cases First semester 2001	Pneumonia cases coverage	% of pneumonia in relation to other ARIs

1.	Meambar	238	28	59	47.4%	11.7%
2.	Planes	149	18	27	66.6%	12%
3.	Palmital	170	41	40	102%	24.1%
4.	Guarajao	46	3	39	7.7%	6.5%
5.	Río Bonito	8	93	53	175%	*
6.	Jardines	254	113	103	109%	44.5%
7.	Cerro Blanco	92	2	36	5.5%	2.1%
8.	Agua Dulcita	71	19	20	945%	26.8%
9.	Tierra Blanca	104	2	24	8.3%	1.9%
TOTAL		**1,132**	**319**	**401**	**79.5%**	**28.2%**

*Inadequate management of Information System.

In the SPUs of Area No.3, according to statistical data, 3 UPSs: Río Bonito, Jardines and Palmital over reached the pneumonia cases expected for the period; the same as for SPU that report a higher percentage of pneumonias attended in relation to total ARI cases. A problem in information register has been detected in the SPUs of Río Bonito, consisting in incongruousness of information since Trans-1 has a relatively high amount of pneumonias but in AT-2 the ARIs registered is minimum; this clearly shows inadequate management of the information system.

The centers that report the lowest pneumonia coverage are: Cerro Blanco, Guarajao and Tierra Blanca, although they present a significant number of ARIs during the first semester. It's important to mention that even though the number of pneumonia cases is low, is still higher than the number reported last year for the same period.

Reviewing attention records, a relevant finding is that the highest percentage of ARIs corresponds to common colds, which shows certain weakness in orientation of mothers about household management of this type of ARIs; it's still a consultation cause that contributes to congestion of users at the Health Services.

❖ Mortality Analysis

Pneumonia at national level constitutes one of the most important causes of infantile mortality. In the SPUs covered by the project, deaths by pneumonia have also been recorded although register of this information is still a problem. In SPUs of Jardines and

Tierra Blanca one death by pneumonia was reported during the first semester of the current year 2001.

According to records, in SPUs of Area No.1 there haven't been deaths by this cause in infantile population, staying in the same situation in both moments of the survey.

In conclusion we can say that vital statistics continue to have important sub-register, which merits strengthening of the epidemiological vigilance system.

VI. RESULTS PRESENTATION AND DISCUSSION

The most relevant data found in the survey will be presented next. From them, analyze will be made in those elements which will permit to design the future Action Plan.

1. SURVEYED PERSONNEL

Table No.1 shows the total surveyed establishments according to the attention level, as well as the No. Of cases observed and the human resources that gave the service. It shows that most of the surveyed SPUs were CESAR and also the majority of personnel that gave the attention were Auxiliary Nurses; in Area No.3, Auxiliary Nurses observed all cases.

Table No.1: Observations Summary

Health Area	Level		Categories			Total cases
	CESAMO	CESAR	Doctor	Professional Nurse	Auxiliary Nurse	
No. 1	2	3	1	0	7	20*
No. 3	1	8	0	0	10	29**
TOTAL	3	11	1	0	17	49

*One observed case was a doctor and 19 cases were Auxiliary Nurses.
**Auxiliary Nurses observed all 29 cases.

Table No.2 shows the personnel interviewed during the survey, to identify their technical knowledge level in management of ARIs. As it shows, 95% of the interviewed were Auxiliary Nurses, being the greatest number in Area No.3.

Table N o. 2: Number of Interviews and Personnel Category

Health Area	Interviewed Personnel Category			Total Interviewed
	Doctor	Professional Nurse	Auxiliary Nurse	

No. 1	**1**	**0**	**7**	**8**
No. 3	**0**	**0**	**10**	**10**
Total	**1**	**0**	**17**	**18**

2. INDICATORS

Table No.3 shows the principal indicators of ARIs program quality, which are presented by Health Area. In the analysis data found in the first survey are mentioned for comparison and for measurement of changes occurred in the participating SPUs. Data presented in this table come from the observation and interview instruments. In order to compare actual findings with the ones of 1999, indicators are presented in two tables as follows:

Table No. 3.1: Principal Indicators of ARIs Program Quality

No.	INDICADOR	AREA Nº 1	AREA Nº 3	GENERAL
1	Health workers trained in standard management of ARI cases.	87.5% (7/8)	100% (10/10)	94% (17/18
2	Health establishment with antibiotic availability for pneumonia treatment.	100% (8/8)	100% (10/10)	100%(18/18)
3	Health establishment has adequate conditions for standard management of cases.	100% (5/5)	100% (9/9)	100%(14/14)
4	ARI cases were appropriate anamnesis was made	90%(18/20)	44.8% (13/29)	63% (31/49)
5	ARI cases were physical examination was made appropriately.	65%(13/20)	10.3% (3/29)	32% (16/49)
6	ARI cases evaluated appropriately.	65%(13/20)	10.3%(3/29)	32% (16/49)
7.1	Pneumonia cases that received standard treatment.	67% (2 /3)	17%(1/6)	33% (3/9)
7.2	Severe pneumonia cases that received standard treatment.	0% (0 / 0)	100% (1/1)	100% (1/1)
8	Responsible of child with ARI that received counseling in household care.	5% (1/20)	17.2% (5/29)	12% (6/49)
9	Non-pneumonia cases (cough or cold) seen in the service that received antibiotics.	0% (0/17)	0% (0/23)	0% (0/40)
10	ARI cases that received non-indicated medicine.	5% (1/20)	7% (2/29)	6% (3/49)
11	ARI cases classified correctly by the health worker.	95%(19/20)	93.1%(27/29)	94% (46/49)
12	Health worker with adequate knowledge in ARIs classification.	75% (6/8)	80% (8/10)	77%(14/18)
13	Health worker with adequate knowledge in ARIs treatment.	88% (7/8)	60% (6/10)	72%(13/18)
14	Health worker knows basic counseling for ARIs household management.	63% (5/8)	50% (5/10)	55% (10/18)

15	Health worker knows danger signs in ARIs management.	88% (7/8)	70% (7/10)	77% (14/18)
16	Health worker has received references from community personnel.	25% (2/8)	0% (0/10)	11% (2/18)
17	Health worker has sent counter-references to community personnel for case follow-up.	38 % (3/8)	10% (1/10)	22% (4/18)

Table No. 3.2: Comparison of Indicators in ARIs Program Quality, according to different surveys (Baseline Survey 1999 to Final Survey 2001).

No.	INDICATOR	General % 1999	General % 2001
1	Health workers trained in standard management of ARI cases.	**47%** (8/17)	**94%** (17/18
2	Health establishment with antibiotic availability for pneumonia treatment.	**85%** (11/13)	**100%**(18/18)
3	Health establishment has adequate conditions for standard management of cases.	**62%** (8/13)	**100%(**14/14)
4	ARI cases were appropriate anamnesis was made	**9%** (5/57)	**63%** (31/49)
5	ARI cases were physical examination was made appropriately.	**4%** (2/57)	**32%** (16/49)
6	ARI cases evaluated appropriately.	**2%** (1/57)	**32%** (16/49)
7.1	Pneumonia cases that received standard treatment.	**0%** (0/5)	**33%** (3/ 9)
7.2	Severe pneumonia cases that received standard treatment.	**0%** (0/0)	**100%** (1/1)
8	Responsible of child with ARI that received counseling in household care.	**0%** (0/57)	**12%** (6/49)
9	Non-pneumonia cases (cough or cold) seen in the service that received antibiotics.	**37%** (18/49)	**0%** (0/40)
10	ARI cases that received non-indicated medicine.	**16%** (9/57)	**6%** (3/49)
11	ARI cases classified correctly by the health worker.	**84%** (48/57)	**94%** (46/49)
12	Health worker with adequate knowledge in ARIs classification.	**29%** (5/17)	**77%** (14/18)
13	Health worker with adequate knowledge in ARIs treatment.	**18%** (3/17)	**72%** (13/18)
14	Health worker knows basic counseling for ARIs household management.	**24%** (4/17)	**55%** (10/18)
15	Health worker knows danger signs in ARIs management.	**29%** (5/17)	**77%** (14/18)
16	Health worker has received references from community personnel.	**29%** (5/17)	**11%** (2/18)

17	Health worker has sent counter-references to community personnel for case follow-up.	**29%** (5/17)	**22%** (4/18)

Observing quantitative data found in this survey, important changes are observed in 82% (14/17) of indicators in comparison to results of the survey accomplished in December 99. This situation is pleasant although some indicators still have low percentages, which is also of concern.

Indicator No.1 shows that 94% of surveyed personnel is trained in standard management of pneumonia cases (through IMCI strategy) being a facilitating factor that allows a good quality attention. This is one of the indicators that showed a standing out change, since in former data it only reached 47% and in that occasion, personnel from Health Area No.1 marked the greatest difference among non-trained personnel.

Availability of antibiotics for treatment of pneumonia cases in surveyed Health Centers was 100% in both Areas, showing a significant difference in Area No.1 in which prior survey showed that availability of this resource was of 60%. It's interesting to mention that Area No.3 kept 100% in both surveys, showing it has appropriate stock, which facilitates giving the required treatment.

Indicator No.3 summarizes both indicators mentioned before and data reflected in it is satisfactory since 100% of surveyed SPUs have personnel trained in standard management of ARIs plus available antibiotics. Only in CESAMO of Lajas, from three interview workers, one wasn't trained (one doctor).

Indicators No. 4 and 5 also had a positive and important change in relation to the former survey; although, there's incongruence in considering that health personnel is trained in ARIs management and in executing activities they should do during the child's evaluation. According to Attention Normative, data show the persistence of some weakness in this respect. This means that in 63% of the attended cases, a complete anamnesis was made, observing the major problems in Area No.3; but comparing this result with the prior one, it improved because at that moment it only reached 9%. The same situation applies to indicator No.5, in which only in 32% of the attended patients a complete physical examination was done, being the same in Area No. 3, which reflects the greatest weakness.

The same condition occurs with indicator No. 6: ARI cases evaluated appropriately, where the actual results are low (32%) because in the majority of cases, personnel of Area No.3 didn't investigate the presence or absence of intercostal retractions.

Duration of consultation for Area No. 1 was of 36 minutes, increasing if compared with to former average of 12 minutes. In Area No.3 it was also increased from 16 to 30 minutes, existing significant variations among workers, who delayed more than one hour attending one case. This only evidences that use of the IMCI procedure manual is unusual.

The percentage of pneumonia cases that received standard treatment (Indicator No. 7.1) is relatively low (33%) because from 9 pneumonia cases diagnosed, only 3 received the

appropriate treatment. Advance is slow if we compare the actual data with the one in the first survey, where this indicator was of 0% (from 5 cases, no one received appropriate treatment). The most influent factor for this low data was the difficulty that the provider had in explaining the mother medicine management.

In Health Services it's considered that counseling is one of the fundamental components in preventing children complications, and is favorable for an appropriate household care. In the institutional level, this activity relies upon the services provider although in the survey weakness are still found. According to 1999 data, from all the mothers that demanded services the day of the survey, none received appropriate counseling (0%) about treatment or household care of the child. According to actual data, this indicator remains low since only 12% (6 of 49 surveyed mothers) received appropriate counseling.

A successful finding is that from the total cases diagnosed as non-pneumonia (cough or common cold), none received antibiotic as treatment (0%); in the baseline survey this percentage was of 37%. This situation reduces in a substantial way irrational use of antibiotics and consequently increases the appropriate management of this ARIs classification. Also an important reduction (from 16% to 8%) of ARIs cases that received non-indicated medicines was seen. A non-indicated medicine still used in some SPUs is Alergil (Difenhydramine).

A high percentage of the ARI cases observed were classified correctly; average reaches 94% (See Indicator No. 11). Logically it's expected that by making a good evaluation, diagnosis or classification of the illness will be appropriate. Although, if we compare this indicator with the number of ARI cases evaluated appropriately, we see that it's not congruent because the number of appropriate evaluated cases was minimum, but the percentage classified correctly was high. This disparity is with no doubt secondary to the methodology of this survey, were to say that one ARI case has been evaluated appropriately, a lot of tasks must be accomplished and if they weren't done, it made the indicator turned down. (See Indicators Attachment No.6)

Indicators No. 12 and 13 refer to health workers with appropriate knowledge in classification and treatment of ARIs cases respectively. Both reflect a substantial change in comparison to former data of 1999. Indicator No. 12 passed from 29% to 77% and No. 13 from 18% to 72%. Both situations are important elements that determine directly in the attention process to save a child's life.

In the field we could corroborate that the majority of health workers that attend children, give little or no important to household care and as mentioned before, counseling of health providers given to users can determine if the child gets better or worst in his house. Indicator No. 14 shows that the percentage of health personnel that knows basic counseling for ARIs household management is still low for both Areas No.1 (62.5%), and No. 3 (55%), reaching an average of 55%. Even though this percentage represents improvement in relation to former baseline survey that was in 24%.

It's well known that in the child's attention process, following IMCI strategy one should start the evaluation investigating the presence of danger signs. Not doing this task means taking an inadequate decision for the child's management, putting at risk its own life.

Data found show that only 77% of surveyed health personal knows danger signs in ARIs management. Although, stands out that this indicator improved in a significant way if we compare both studies, from 29% at the beginning to an actual 77%. Increase in this indicator, as the others, is attributable to the intervention of training and monitoring that the project impelled together with personnel of the Areas of the SOH.

The reference and counter-reference system historically has been a problem in the different levels of the Secretary's Office of Health; by the moment, a pilot project approaching this problem is being impelled and it's expected to contribute to improve this situation.

Indicator No. 16: Health workers that have received references from community personnel are still low. Actual data is still lower (11%) than data in the baseline survey (29%). Area No.1 reports 25% of received references but in Area No.3, the percentage is 0%. The same problem is seen in indicator No.17 in references and counter-references sent to community personnel by the health service. Effectively, the actual percentage of 22%, is less than the one found in the baseline survey that was 29%.

Indicators described before have a memory slant because collected data come from worker's memory in relation to if they have received or not references and if they have sent or not counter-references. This is like this because there's no control in Health Centers that permit an easy check of documents sent in both ways.

In the former survey, problems in register information in clinical records were found, since it's common that health personnel given consultations register the minimum data. Anyway, with the actual findings, this practice has been modified positively. Lets see just some evidence:

- Checking clinical records it was found that from 49 observed cases, in 100% their respiratory frequency (RF) was taken and recorded.

- In relation to searching intercostal retractions, this task was realized in 39% of the cases (19/49) and from those in whom it was searched, 100% was registered in the clinical record (19/19).

- In relation to searching stridor or sibilance's, this task was realized in 57% (28/49) of the cases; from these, only 82% (23/28) were registered in the clinical record.

In general we can see that information registration in the children clinical records has improved secondary to the training process in the IMCI strategy strongly supported by CSP. The utilization of formularies while giving attention under this focus, helps documentation of all aspects related to the consultation given to the child, even though the aspect least recorded is orientation given to users.

Diagnosis is the component that determines treatment and follow-up of children, so informing the mother in this regard is an activity that the service provider should never forget. In this survey, we found that 100% of the diagnoses were registered in the clinical record (49/49); anyway, communication with the mother just occurred in 69% of the

cases, percentage a little higher than the one in the baseline (46%), observing a small positive difference.

In Tables No.4 and No.5, a comparison between recorded diagnosis and diagnosis made by the observer is made. We can appreciate that differences exist in illness classification, since in Area No. 1, the provider has 2 more pneumonia cases in relation to the number of cases determined by the investigator, which didn't correspond to this classification because one was a case of asthma and the other one was non-pneumonia. In Area No. 3 two more cases of non-pneumonia were recorded, being one of them asthma and the other one that should've been classified as febrile illness.

All this evidences difficulties that the provider has in making a diagnosis of quality, moreover because when the child has sibilances, respiratory frequency increases, but since the majority of surveyed centers don't have nebulizators (some have been provided of inhalers but unfortunately they don't use them), the AN can't first treat the sibilance and afterwards take a decision considering children improvement or not.

On the other hand information generated through this survey evidences that counting respiratory frequency is one of the biggest problems that the health worker has. This is relevant considering that this aspect is the cardinal point for pneumonia classification.

It's important to mention that in the baseline, bronchitis is a diagnosis made by the health worker and not an IRAs classification. Actually this diagnosis doesn't appear as an illness category, reflecting the change occurring in the health services in relation to the component of Human Resources Development, through training journeys in IMCI strategy.

Table No. 4: Diagnosis of cases according to investigator.

Area	Diagnosis				Total cases diagnosed
	No Pneumonia	Pneumonia	Severe Illness	Asthma	
Area No. 1	16	3	0	2	20
Area No. 3	22	6	1	0	29
Total	**38**	**9**	**1**	**2**	**49**

Table No. 5: Diagnosis of cases according to services providers

Area	Diagnosis					Total Cases
	No Pneumonia	Pneumonia	Severe Illness	Febrile Illness	Asthma	
No. 1	15	4	0	0	1	20
No. 3	20	6	1	1	1	29
Total	**35**	**10**	**1**	**1**	**2**	**49**

3. VERIFYING INSTALLED CAPACITY IN SURVEYED HEALTH CENTERS

Necessities found can be reviewed in more detail in Attachment No. 3; next we make a brief summary.

3.1 Equipment: The majority of surveyed SPUs are deprived of some equipment although it's less than what it was found in the baseline. All establishments have refrigerators, being this problem found in the former survey. The most frequently mentioned necessities are measuring boards, folding screens for patient's privacy, lantern and 2 SPUs mentioned chronometers.

3.2 Medicine: In general, SPUs have the antibiotics necessary for pneumonia management; only Río Bonito reported that Thrimethoprim -Sulfa was insufficient and SPU of Jardines that amoxicilline also was insufficient.

3.3 Register Forms: 89% of SPUs in Area No.3 reported insufficient endowment of evaluation sheets for children less than 5 years old consultations (IMCI), child carnet and reference sheets for pneumonia cases. In Area No.1 only one SPU reported this problem.

3.4 Other Supplies: In 3 SPUs of Area No.1 they were deprived of vaccines, situation that limits doses applications to susceptible children that attend the Centers. Also thermometers for maintenance of the cold web are missing too.

3.5 Community Personnel: According to surveyed data, Area No.1 reports 40 Health Monitors trained in pneumonia management. This numbered increased in relation to data of the baseline survey that reported only 11. According to information given by services providers, Area No.3 has 51 Monitors trained in ARIs management, finding more in the baseline survey that reported 99.

3.6 Average Attentions: Average number of attentions for Area No.1 is of 23 patients and for Area No.3, 22 patients daily, establishing approximately the same average for both Areas. This means that personnel from the Health Centers have good availability of time to offer an attention of quality.

3.7 Physical Fitting and furniture: Physical infrastructure of health service establishments is an important part for giving users attention of quality. According to data found in the first survey, infrastructure has improved in Area No.1; San Rafael has a new building and refrigerators. In the baseline survey two SPUs didn't have refrigerator. CESAMO of La Libertad reported insufficient benches or chairs for patients. In Area No.3, SPU of Palmital is has inadequate functioning conditions. Stands out that in this Area, 3 establishments don't have clean environments, condition that limits an attention of quality.

3.8 Consultation difficulties

According to the interview made to health workers, some findings that difficult the attention given to a child less than 5 years were made, specially for those presenting ARIs. These findings were:

- **Demand:** Too many patients (3)

- **Supplies:** Don't have chronometer (1)
  Don't have register forms (1)
  Don't have scales (1)

- **Attention Problems:** Mothers don't understand explanations (3)
  Trouble for counting Respiratory Frequency (2)
  Children are restless during the evaluation (1)

- **Human Resources:** Insufficient personnel (1)

- **Reference System:** References don't work (1)

*Numbers in parenthesis indicate the number of answers.

The baseline survey of 1999 evidenced that in opinions given by personnel lack of trained personnel predominated, as well as deprivation of medical equipment and chronometers for respiratory frequency count. This situation has been overcome as shown in this survey; **changes are secondary to CSP intervention in supplying chronometers and training of human resources as well as negotiation with the Areas No. 1 y 3 for provision of missing equipment in Health Centers.**

4. EXIT INTERVIEWS WITH MOTHER OR PERSON IN CHARGE

These interviews were made to get users opinion about the attention received the day that investigators were in the Health Centers. In some way, this allowed evaluation of the quality of counseling given by the health worker and identification of users satisfaction level with health services. Results are presented next.

4.1 Child Population Surveyed

Table No. 6 shows the ages of children that consulted the health services and were subjects of investigation. From the total consultations of children less than 5 years old, 48% (22) of the children were less than one year, remaining the same in both surveys in the project.

Table No. 6: Age of children that were part of the survey sample

Age/ Months	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
Less than 2 months	1	3	6%	10%	4	9%
2-11 months	10	8	56%	29%	18	39%
12-59 months	7	17	38%	61%	24	52%
TOTAL	**18**	**28**	**100%**	**100%**	**46**	**100%**

4.2 Duration of the illness at the moment of consultation.

Time passed from the beginning of symptoms to the time of consultation in the Health Center reveal that 54% of mothers or persons in charged seeked for attention in the first five days of illness, as shown in Table No. 7. 46% attended the health services after the first week of initiated the symptoms, which is considered a high percentage of mothers that seek for attention lately which puts in risk child's health.

Baseline survey showed that 61% of children were taken to the health services in the first five days after the illness started. We concluded that even though the actual percentage of mothers that seek for treatment after the first week is less, mothers still take their children to the health centers too late, as shown in Table No. 7.

Table No.7 Time passed between the beginning of symptoms and the time of consultation to a health service.

Time in days	Number		Percentage		Total	
	Area No.1	Area No. 3	Area No.1	Area No. 3	Number	Percentage
0-5	6	19	33%	68%	25	54%
5-10	5	7	28%	25%	12	27%

10-15	2	0	11%	0%	2	4%
15 or more	5	2	28%	7%	7	15%
TOTAL	**18**	**28**	**100%**	**100%**	**46**	**100%**

4.3 Time passed before the mother or person in charged for the child attended a health service.

From all persons interviewed, 85% manifested that it takes them less than one hour to reach the health service; 13% delayed 1 to 2 hours. Data reveal that in Area No.1 there's better geographical access, since 94% of the surveyed persons delayed less than one hour to reach the Health Center. Considering this, we can say that persons that attend the services are those that live near them, so in appearance the geographical access problem is not evident. (See Table No.8)

Table No. 8: Time it took to arrive to the Health Center

Hours	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
0-1	17	22	94%	40%	39	85%
1-2	1	5	6%	32%	6	13%
2 or more	0	1	0%	14%	0	2%
Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

4.4 Time waited to be attended.

Interrogation surveyed persons about the time they waited to be attended, the majority referred less than one hour (48%), percentage higher than the one found in the baseline survey (22%); **this means that actually more persons are being attended faster.**

In this analysis 11% of consulted persons waited more than three hours to be attended, which merits investigating the reasons, identification of alternative solutions with the persons involved and giving opportune response to patients, considering that delayed attention can cause severe consequences to the child's health state. Anyway this percentage was higher in the baseline survey (24%), which represents a reduction in more than 100% the number of consultants that delayed more than three hours to be attended.

The former can be explained as a result of sharing the results of the baseline survey with personnel of the Health Centers. In that occasion, a verbal compromise was made so consultation to be easier and to shorten waiting times. (See Table No. 9)

Table No.9: Time waited for attention.

Hours	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
0-1	11	11	61%	40%	22	48%
1-2	4	9	22%	32%	13	28%
2-3	2	4	11%	14%	6	13%
3 or more	1	4	6%	14%	5	11%
Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

4.5 Opinion about time waited

Data presented in Table No. 10 show the opinion that mothers have about what they thought of the time waited to bee attended. The highest percentage (63%) corresponds to persons that thought that waited time was acceptable, but 20% referred that it was too much time, situation that merits more investigation to identify the critical point that is causing the problem. These two parameters were kept about the same in comparison to the ones in the baseline survey; the parameter that changed the most was that one in which users manifested that the time waited was little which passed from 4% to 17%.

Table No. 10: Opinion about time waited to be attended.

Rank	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
Too much	1	8	6%	29%	9	20%
Acceptable	13	16	72%	57%	29	63%
Little	4	4	22%	14%	8	17%

Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

4.6 Counseling for caring children with ARIs.

Another purpose of the interview was to investigate the quality of orientation given to users, since the provider must take advantage of the consultation to educate the mother in activities she should make in her household for self-care. This counseling should start by telling the mother or person in charge, what illness does the child have.

Table No.11 shows the data of interviewed persons in relation to the mentioned above. 82% of mothers answered that the provider told them what sickness the child had; **this percentage surpasses the one found in the baseline survey (65%).**

A difference of 8% exists between what mothers refer and data collected by investigators during the consultation observation (according to investigators, 74% of the mothers were told about what their children had). Possibly this percentage is equivalent to the mothers that answered without veracity criteria.

Other interesting data is that 18% on surveyed persons said that they didn't receive information about the child's diagnosis. In relation to this, Table No. 12 shows that 30% referred no orientation about identification of danger signs, although if we compare these results with the baseline, the later was of 80%. Besides that, the health worker should be reinforced in this aspect because if many mothers don't know this, probabilities of complications in the child increase, even probable death.

Certainly we can say that with all these data, communication between services provider and mothers / person in charge has improved, not only in telling the mother what the child has but also in educating about danger signs. (See Tables No.11 and 12)

Table No. 11: Mother / person in charge who were told about the diagnosis.

Category	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
Yes	16	22	89%	79%	38	82%
NO	2	6	11%	21%	8	18%
Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

Table No.12 They showed about danger signs that should make you come back.

Category	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
Yes	14	18	78%	64%	32	70%
No	4	10	22%	36%	14	30%
Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

4.7 Other surveyed aspects.

- **Carrying vaccination carnet**

All persons surveyed were asked if they were carrying the child's vaccination carnet at the moment of consultation. 59% said that they were carrying it, 41% said they didn't. This data are similar to those in the baseline. The necessity for Health Services of being more exigent for mothers to fulfill with this requirement is perceived, as well as to avoid lost opportunities for vaccination of susceptible children. (See Table No. 13)

Table No. 13. Has child's vaccination carnet

Category	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
Yes	11	16	61%	57%	27	59%
No	7	13	39%	43%	19	41%
Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

- **Received good attention during the consultation and how do you consider it.**

Tables No. 14 and 15 refer to answers received when surveyed persons were asked if they received good attention during the consultation and how they considered this attention. Data show that 98% of surveyed persons received good attention from the services provider (doctor or auxiliary nurse); this data is similar to the one obtained in the baseline that was of 96%.

90% considered that the attention received was good and 4% considered it excellent; 4% said it was regular and 2%, bad. These percentages are similar to those found in the baseline. (See Tables 14 and 15).

In conclusion, we see that the perception of users in relation to the quality of the attention they receive has not been modified since more than 90% consider they receive good attention and that services are of good quality. These dada remain in relation to baseline survey data.

Table No. 14 Received good attention during the consultation.

Category	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
Yes	18	27	100%	96%	45	98%
No	0	1	0%	4%	1	2%
Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

Table No. 15: How do you consider the attention you received in the Health Center

Category	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
Excellent	2	0	11%	0%	2	4%
Good	15	26	83%	92%	41	90%
Regular	1	1	6%	4%	2	4%

Bad	0	1	0%	4%	1	2%
Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

- **Link between health services and the community.**

Analyzing data from Table No.16, we see that the percentage of mothers that refer having received instructions (from the health worker) to consult community personnel (Health Monitor) for child's follow-up was of 37%; although it's still low, it's higher than the percentage found in the baseline survey (13%).

From these findings, we can affirm that health workers that use IMCI tools make links between health services and the community to be better and more effective. (See Table No. 16)

Table No.16: Mothers or person in charge that were recommended to seek community personnel for follow-up of ARIs cases.

Category	Number		Percentage		Total	
	Area No.1	Area No.3	Area No.1	Area No.3	Number	Percentage
Yes	6	11	33%	39%	17	37%
No	12	17	67%	61%	29	63%
Total	**18**	**28**	**100%**	**100%**	**46**	**100%**

4. 8 Mothers opinions and recommendations to improve attention.

Although in the data analyzed before, interviewed mothers showed a high level of satisfaction in relation to the health services received, when asked about recommendations to improve attention, they answered the following:

Area No. 1

Human resources: Another doctor (2), More nurses (2), More support for the nurse (2)

Supplies: Give more medicines (2)

Infrastructure: Improve the Health Center's fence (1)

Others: More information (6), Improve the nurse's salary (1)

Area No. 3

Human Resources: Seek for more personnel (6), attention given by a doctor (2)

Supplies: Good medicine (1), enough medicine for a child (2), available medicines for cytology (1)

Infrastructure: Change the roof (1), paint the Health Center (1), amplify waiting rooms (1), clean the Center (1), and more sanitary services (1)

Others: faster attention (5), punctuality of the Center's personnel (2), write down medicine doses and schedule (1), improve attention (1), doesn't know (1), everything is all right (4)

Both areas presented similar recommendations although Area No.3 shows more. It's worth it to consider them to improve quality of attention in the surveyed SPUs.

In the other hand, stands out that in this survey no recommendations appear related to personnel attitudes, which predominated in the baseline survey. We want to be optimistic and think that changes are real about the way health workers attend patients since their health and welfare is the final purpose of our job.

VII. CONCLUSIONS

After analyzing data of this survey, the following conclusions were made:

1. A high percentage of indicators (88%) were modified positively in comparison with data obtained in the baseline of December 1999, situation that has been given by training health personnel in standard management of cases, included in the IMCI strategy.

2. All the Health Centers surveyed have the conditions to give a standard management of ARIs cases, factor that facilitates the quality of attention.

3. Although the majority of the health personnel surveyed are trained in standard management (IMCI), they're not accomplishing many activities as it's said in the

attention normative for child evaluation; this situation causes inadequate management of ARIs.

4. All surveyed SPUs have procedures manual to give attention under IMCI´s focus, although little use was evident, limiting integral attention for the child.

5. Pneumonia cases treated adequately is relatively low. Anyway it's necessary to mention that not only antibiotic use was evaluated but also other criteria that allowed identification that the major problem is in mother's application of the treatment.

6. Respiratory frequency is the critical point for pneumonia diagnosis. Health personnel had trouble in counting the frequency, which merits a follow-up.

7. Although in a small percentage, health providers continue to have little documentation in the clinical records, about all aspects related to children consultations. Information least registered is the educational part given to the user, which favors inappropriate follow-up of the patient.

8. Counseling given to the mother about treatment and household care of the child is limited, which makes difficult prevention of household complications in the child and consequently appropriate care.

9. The reference/ counter-reference system is slanted because it doesn't exist a control mechanism for follow up and appropriate functioning.

10. Although communication between the service provider and the user has improved considerably, institutional link with the community still is poor in relation to ARIs management.

11. Average patient attentions in the surveyed SPUs is low, observing that time is not a problem to give attention of quality.

12. Vital statistics records continue to be a problem that limits having accurate knowledge about mortality.

VIII. RECOMMENDATIONS

Taking as reference data obtained in this survey, we can say that for further improvement of the quality of attention, no profound changes are needed; this means that we need to keep trying to change negative habits in the way we work. We should also keep making emphasis in monitoring and supervising institutional strategies of the SOH. Under this focus, we recommend the following:

1. More follow-up to the operation of IMCI strategy in the SPUs of Areas No.1 and 3, to guarantee that attention is permanently given under this focus.

2. Give more accompaniment to local teams, to strengthen technical weakness in attention to users.

3. Emphasize in health workers they must search for danger signs in all children less than 5 years that seek for attention in the health services.

4. Strengthen health workers abilities for counseling mothers, to make easier care practices at home, taking advantage of monthly meetings and visits to SPUs.

5. Encourage activities to promote better health self-care practices among users, taking advantage of mothers /fathers attending Health Centers.

6. Strengthening coordination activities with municipalities for them to appropriate the problems is recommended as well as strengthening health services system in relation to infrastructure, supplies, etc.

7. For Area No.3, specifically SPU of Palmital, coordination with other actors is recommended, to improve physical infrastructure of the Health Center considering that the actual building doesn't gather minimum conditions for functioning.

8. Areas No. 1 and 3, implement analysis and reflection reunions with services providers, approaching subjects like consultation priority according to pathology and origin, in order to shorten waiting times of users.

9. Establishment of viable strategies that will bring near health services provider with community personnel; this will permit volunteers to remain active and will strengthen community work.

10. Areas No.1 and No. 3 must strengthen the reference /counter-reference system impelled by the Sanitary Region No.2 and assures its fulfillment.

11. Permanent medical auditing is recommended; this will permit checking of clinical records and time used for attention of users.

12. Areas No. 1 and 3 should look for the necessary mechanisms to keep a permanent stock of vaccines in each SPU; this way they can diminish lost opportunities for vaccination of children attending the services.

13. Supply registration forms, material and equipment according to each service's requirements, for the development of programmed activities.

14. Strengthen processes of infantile mortality investigation, creating a web of informants in the influence area of each SPU to reduce the existing sub-registration of deaths.

15. Fast users satisfaction interviews should be made periodically, to know their satisfaction level about the services; also monitor changes in relation to users perceptions.

16. Sharing results of this survey with Health Personnel in the Regional level, Area, Sector and Local Teams is suggested, for them to identify the problems and recommend alternative solutions to improve access and quality of services.

17. The above recommendations merit to be taken into account, as to be included in the working plans of each Health Service taking advantage of the moments of health personnel concentration as well as visits to the SPUs, trying with all this to give better attention to users, considering that health determines their welfare and that it's the final purpose of our work.

IX. BIBLIOGRPHY

1. Secretary's Office of Health: **National Interview of Epidemiology and Family Health**, Tegucigalpa, Honduras year 1997.

2. Secretary's Office of Health, Pan-American Health Organization: **Honduran Health Services System Profile**, Tegucigalpa, year 2001.

3. Secretary's Office of Health, **Technical guide for IMCI Procedures Manual,** version II, year 1998.

4. Secretary's Office of Health, **Monthly Attention Registry (AT-2)** first semester year 2001, Areas No. 1 and 3 of Sanitary Region No.2.

5. Secretary's Office of Health, **Monthly Obligatory Statement of Diseases (TRAN-1)** first semester year 2001, Areas No.1 and 3 of Sanitary Region No.2.

6. Secretary's Office of Health, **Monthly Registry of Obligatory Notification Diseases** (Weekly Alert Telegram) first semester year 2001, Areas No.1 and 3 of Sanitary Region No.2.

7. Secretary's Office of Public Health, **Monthly Death Registry** (COM-2), first semester year 2001, Areas No.1 and 3 of Sanitary Region No.2.

Attachment 5
SECRETARY'S OFFICE OF HEALTH/PAG
Review of Attention Quality in Health Services
INTERVIEW TO HEALTH WORKER
ABOUT KNOWLEDGE IN ARI

DATE:_____ **ESTABLISHMENT:** _____

INTERVIEWER:_____ **AREA:**_____**Form #2**

Key: Y= Yes, N= No, DA= Doesn't apply

QUESTIONS						TOTAL
1. Were you trained in IMCI (AIEPI) strategy (Y.N)						
2. In your service, did you have enough antibiotics for management of pneumonia during the last trimester? (Y, N)						
3. Which one is a clinical sign for pneumonia diagnosis? (Y, N) *To classify as Yes, s/he must mention:* * Respiratory frequency						
4. In what state should the child be in order to measure its respiratory frequency? (Y, N) *To classify as Yes, s/he must mention :* * Calmed, in complete rest						
5. In a child less than 2 months old, what respiratory frequency indicates severe pneumonia? (Y, N) *To classify as Yes, s/he must mention :* * 60 or more respirations per minute						
6. In a child 2 to 11 months, what respiratory frequency indicates pneumonia? (Y, N) *To classify as Yes, s/he must mention:* * 50 or more respirations per minute						
7. In a child between 1 and 5 years, what respiratory frequency indicates pneumonia? (Y, N) *To classify as "Yes" s/he must mention:* * 40 or more respirations per minute						
8. In what part of the body should you look for retractions ? (Y, N) *To classify as "Yes" s/he must mention:* * Intercostal region						
9. With what signs or symptoms would you refer to the hospital a child less than 2 months old with cough? You may see the procedures manual (Y, N) *To classify as "Yes" s/he should mention three or more of the following choices:*						
* Strokes						
* Lethargic, unconscious						
* Flaring of the alae nasi						
* Grunting respirations / stridor						
* Bulging fontanelle						
* Fever or low temperature						
* Severe intercostal retractions						
* Tachypnea (60 or more respirations per minute)						
10. With what signs or symptoms would you refer to the hospital a 7 month child with cough? You may see the procedures manual (Y, N) *To classify as "Yes" s/he should mention three or more of the following choices:*						
* Can't drink or breastfeed						
* Vomits everything he/she ingests						
* Lethargic or unconscious						
* Stridor at rest						
* Intercostal retractions						

11. In which type of ARI does therapy consists in antibiotics ? (Y, N)						
To classify as "Yes" s/he should mention at least three of the following choices:						
* Pneumonia						
* Mastoiditis						
* Acute Otitis Media						
* Streptococcal Pharyngitis-Tonsillitis						
12. Which antibiotic is used for pneumonia treatment at home? (Y, N) *To classify as "Yes" s/he should mention any of the following choices:*						
* Trimethoprim-sulfamethoxazole						
* Amoxicillin						
13. Which is the drug of choice for severe pneumonia treatment in a child older than 2 months, in case it can't be referred or hospitalized? (Y,N) *To classify as "Yes" s/he should mention:*						
* Procaine Penicillin						
14. Do you treat cough in an appropriate way ? Verify ¿What treatment do you recommend for cough ? (Y, N) *To classify as "Yes" s/he should mention both of the following choices:*						
* Use of domestic remedies (smooth drink)						
* Use of medicine						
15.¿What advice would your give to the mother of a child with cough or a cold in relation to home care? (Y, N) *To classify as "Yes" s/he should mention three of the following choices:* * Fever: Appropriate management						
* Feeding: Keep on feeding * Liquids: Increase liquids * Cough: Appropriate management (domestic remedies) * Nose: Clean the nose if necessary						
16. ¿Which are danger signs in ARI ? *To classify as "Yes" s/he should mention at least four of the following choices:*						
* Can't drink or breast-feed						
* Vomits everything he/she ingests						
* Strokes						
* Fever or hypothermia						
* Lethargic or unconscious						
* Stridor at rest						
* Intercostal retractions						
* Tachypnea						
17.What problems do you find to treat a children with cough or respiratory distress?						
* He/she is not trained						
* Too many patients						
* Doesn't know how to count respiratory frequency						
* Not much time to count respiratory frequency						
* No medicine available						
* Mothers don't understand the explanations you give						
* You don't know how to communicate with mothers						
* References do not work out						
* Others						
18. During the last month, have you received patients with ARI referred from community personnel ? (Y, N) ¿How many? _____						
19. Have you sent any counter-reference to community personnel for follow-up of a child with ARI ? (Y, N) ¿How many? _____						

Attachment 4
SECRETARY´S OFFICE OF HEALTH/PAG
Review of Attention Quality in Health Services
OBSERVING THE HEALTH WORKER
CHILD WITH COUGH AND OR BREATHING DIFFICULTY
(Less than five years old)

FORM # 1 **ÁREA:**_____

INTERVIEWER: _____ **ESTABLISHMENT:**_____

Clave: Y= Yes, N= No, DA= Doesn't apply, NC=No Carnet

OBSERVATION	Case 1	Case 2	Case 3	Case 4	Case 5	TABUL.
1. Date of observation						
2. Hour of initiation						
3. Hour of finalization						
4. Duration of consultation						
5. Type of health worker (SD= Specialized Dooctor,D= Doctor, SD= Doctor in Social Service, PN= Professional Nurse AN= Auxiliary nurse, O= Other						
6. ¿ Did s/he gave a respectful welcome? (Y, N) *To classify as "Yes" sit must fill at least three of the following requirements:*						
* Nice voice pitch						
* Respectful attitude						
* Looked to the eyes of the patient						
* Called the patient by his/her name						
7. Did s/he guaranty privacy in the consulting room? (Y, N) *To consider as "Yes" it must fill at least two of the following requirements:*						
* Door of the consulting room is closed						
* There's no one else in the consulting room						
* Persons entering or leaving the consulting room						
* Has folding screen/ /curtain/ wall between the desk and the stretcher						
8a. Did s/he apply the missing vaccine doses ? (Y.N.-NC)						
9. If the child is less than 5 years old, did s/he weighted him/her? (Y, N,)						
10. Did s/he write the temperature in the patients record? (Y, N)						
11. Did s/he ask and write the patients age in the record? (Y,N)						
12. Did s/he ask about breast-feeding or liquid ingestion in the last 24 hours? (Y,N)						
13. Did s/he ask if the child had cough, breathing difficulty, ear or throat problems? (Y,N)						
14. Did s/he ask the duration of the illness? (Y,N)						
15. Did s/he investigated danger signs in the child? (Y,N)						
To consider as correct, it should mention at least three of the following:						
* High respiratory frequency (< 2 months = 60 or more per minute)						
* Severe intercostal retractions (< 2 months)						
* Flaring of the alae nasi (< 2 months)						
* Fever / hypothermia (< 2 months)						
* Can't drink or breast-feed						
* Strokes						
* Vomits everything it ingests						
* Lethargic or unconscious						
16. Did s/he measured respiratory frequency for a minute? (Y,N)						
16 a. Did s/he write respiratory frequency in the patients record? (Y,N)						
17. Did s/he looked for intercostal retractions ? (Y,N)						
17a Did s/he write intercostal retractions in the patients record? (Y,N)						
18. Did s/he looked for stridor or sibilances? (Y,N) *Must listen with stethoscope and / or ear..*						
18a Did s/he write stridor or sibilances in the patients record? (Y,N)						
19. Did s/he register the diagnosis? (Y,N) If the answer is Yes, fill in question 20 If the answer is No, make question 20 to the health worker and answer it.						

20. How does the health worker classify the illness?						
* Cough or Cold or No Pneumonia (NP)						
* Pneumonía (P)						
* Severe Pneumonía (SP)						
* Severe Illness (SI)						
* Otitis (Mastoiditis, Acute otitis media , Chronic otitis media (O)						
* Streptococcal and viral pharyngitis-tonsillitis (PT)						
* Febrile Illness (FI)						
Do not classify this question as (Y, N). Write the abbreviation by initials in the box. *If the health worker doesn't give the information you should ask*						
21. Which is the illness classification according to the observer? Write the abbreviation by initials of the diagnosis in the box. Remember to do your evaluation outside the consulting room.						
* Cough or Cold or No Pneumonia (NP)						
* Pneumonía (P)						
* Severe Pneumonía (SP)						
* Severe Illness (SI)						
* Otitis (Mastoiditis, Acute otitis media , Chronic otitis media (O)						
* Streptococcical and viral pharyngitis-tonsillitis (PT)						
* Febrile Illness (FI)						
22. Is the illness classification adequate according to the observer's appreciation? (Y, N) *To classify as "Yes" the classification of the health worker must coincide (question 19) with the one of the observer (question 20)*						
23. Does the health worker say to the parent what the child has? (Y,N)						
Note: According to the diagnosis of the health worker, fill in the following:						
NO PNEUMONIA/STREPTOCOCCAL PHARYNGITIS /OTITIS / BRONCHITIS						
24. Did s/he explained the mother about danger signs that should make her come back to the Health Center? (Y, N) *To consider correct, it should mention at least three of the following:*						
* High respiratory frequency						
* Intercostal retractions						
* Can't drink or breast-feed						
* Strokes						
* Vomits everything it ingests						
* Lethargic or unconscious						
25. Did s/he explained the mother about supporting measures? (Y, N) *To consider correct, it should mention at least three of the following:*						
* Fever: Appropriate management						
* Feeding: Keep feeding						
* Liquids: Increase amount of liquids						
* Cough: Appropriate management of cough (home remedies)						
* Nose: Cleaning the nose as required						
26. Did s/he explained the mother about supporting measures for PT and/or Otitis (Y, N, DA) for cold or bronchitis.						
27. Did s/he used antibiotics? (Y, N, DA) *If the diagnosis is otitis media or pharyngitis-tonsillitis write (DA)*						
28. Did s/he used medicine that's not indicated (besides antibiotics)? (Y, N)						
29. Did s/he gave a reference or recommend to seek community health monitors to watch over the child? (Y,N, DA)						
PNEUMONIA						
30. Did s/he explained the mother about danger signs that should make her her come back? (Y, N) It should mention at least three:						
* High respiratory frequency						
* Intercostal retractions						
* Can't drink or breast-feed						
* Strokes						
* Vomits everything it ingests						
* Lethargic or unconscious						

31. Did s/he explain the mother when she has to come back for the child's evaluation ?(Come back in 2 days)						
32. Did s/he explained the mother about supporting measures? *To consider as correct, it should mention at least three of the following:*						
* Fever: Appropriate management						
* Feeding: Keep feeding						
* Liquids: Increase amount of liquids						
* Cough: Appropriate management of cough (home remedies)						
* Nose: Cleaning the nose as required						
33. Did s/he prescribed an antibiotic in an appropriate way? (Y, N) *To consider as correct, the following two things must be done:*						
* Appropriate antibiotic						
* Correct doses						
34. Explanation of the use of the medicine to the mother (Y, N)						
To classify as "Yes" all of the following should be done:						
* Taught how to measure the doses of the medicine						
* Schedule (how often)						
* Said for how many days						
* Taught how to prepare it (if the medicine comes as powder)						
* Asked the mother to repeat how to give the medicine to the child						
35. Did s/he used medicines not indicated, besides the antibiotic? (Y, N)						
36. Did s/he gave reference or recommend to seek community health workers to watch over the child? (Y, N, DA)						
SEVERE NEUMONIA / SEVERE ILLNESS						
37. Was the child referred or hospitalized? (Y, N)						
38. Was the first antibiotic doses given appropriately in the service? (Y, N) *To consider as correct, the following two things should be done:*						
* Appropriate antibiotic						
* Correct doses						
39. Did they give the mother an explanation for the hospital transfer? (Y,N) Classify as "Yes" if it mentions all of the following choices:						
* About the first doses of treatment						
* Keep the child sheltered and warm						
* What to do if she can't take the child to the hospital						

INTERVIEW MOTHER / FATHER
SECRETARY´S OFFICE OF HEALTH/PAG
ATTENTION TO QUALITY IN HEALTH SERVICES
"EXIT INTERVIEW"

Health Unit _____

Community_____

Interviewer _____

Child's Age _____

Date of Interview _____

INTRODUCTION:

We are conducting a survey to identify health needs and the quality of services that those parents of children less than 5 years old receive in Health Centers. These surveys are confidential so we appreciate your sincerity.

1. How long has your child been sick?

   Less than 1 day Days How many _____ Not sure

2. How long did it take you to get here? Hours _____ Minutes _____

3. How much time did it take for the nurse or doctor in the Health Center to attend to you?
   Hours _____ Minutes _____

4. That amount of time seemed to be: Too much Acceptable Not too much
   Interviewer: If the parent doesn't answer, read the choices.

5. Did the nurse or doctor pay attention to your description of the child's illness and answer your questions? Yes No

6. Did the nurse or doctor examine the child? Yes No

7. Did the nurse or doctor tell you what the child had? Yes No

If the answer is no, go to question 8

8. What did they tell you the child had?
   _____
9. What treatment did they administer to the child?
   _____

10. Did the nurse or doctor explain how to give the medicine to the child?

    Yes No

    Interviewer: If the answer is no, go to question 11.

11. Ask the parent to explain how to give the medicine to the child.

    If it's correct, the parent should mention:

    Doses_____
    Schedule_____
    Duration of treatment _____

12. Are you carrying the child's vaccination card? Yes

Ask to show it.

No

If the answer is no, go to question 14

13. Did they apply any vaccine to the child? Yes No Doesn't apply

14. Did they recommend Vitamin A for the child? Yes No Doesn't apply

15. Did the nurse or doctor tell you about symptoms indicating that you should bring him/her back to the Health Center? Yes No

    Interviewer: If the answer is "Yes", ask to mention which symptoms:

    _____

    _____

    _

16. Did the nurse or doctor tell you if you have to come back? Yes No

    Interviewer: If the answer is "Yes", say when, Date _____

17. What other recommendation did they give you?
    _____

18. Do you feel that you received proper attention from the nurse or doctor? Yes No

19. Did you have privacy during the consultation? Yes No

20. How much time did you wait to receive the medicine?

    A lot Acceptable Not too much

21. Did they give you all the medicine prescribed?

    Yes No

Interviewer:
If the parent doesn't answer, read the choices.

22. How would you rate the attention received in the Health Center?

    Excellent Good Regular Bad

Interviewer:
If the parent doesn't answer, read the choices.

23. Did they recommend that you look for community members to watch over your child? Yes No

24. What would you suggest to improve the attention in the Health Center?

_____

_____

_____

THANK YOU FOR YOUR TIME!!

SECRETARY´S OFFICE OF HEALTH /PAG
QUALITY REVIEW OF HEALTH CENTER´S CAPACITY AND SUPPLIES

Health Unit: _____

Community: _____

Informant's Name and Charge: _____

Interviewer: _____

Date: _____

Human Resources:

---

1. How many people work in this Health Center? _____
2. How many community members in your jurisdiction are trained in pneumonia management?

   _____
3. What is the average number of patients per day? (Review AT-1 of the last week)_____

Check List:

Working Area		**Exists**		**Quant.** Sufficient or insufficient for the trimester	**Observation** "Conditions"
* Waiting Room	Yes ☐		No ☐	_____	_____
* Benches or chairs for patients	Yes ☐		No ☐	_____	_____

* Trash cans	Yes	☐	No	☐	_____	_____
* Procedure Manual	Yes	☐	No	☐	_____	_____
* Clean environment	Yes	☐	No	☐	_____	_____

Preclinical/Clinical

* Sphygmomanometer	Yes	☐	No	☐	_____	_____
* Stretcher	Yes	☐	No	☐	_____	_____
*Desk	Yes	☐	No	☐	_____	_____
* Chairs for patients Yes		☐	No	☐	_____	_____
* Folding Screen / curtain	Yes	☐	No	☐	_____	_____
*Thermometer	Yes	☐	No	☐	_____	_____
*Scale Yes		☐	No	☐	_____	_____
Measuring Board	Yes	☐	No	☐	_____	_____
Tongue Depressor	Yes	☐	No	☐	_____	_____
*Stethoscope Yes		☐	No	☐	_____	_____
*Lamp/Light Fixtures	Yes	☐	No	☐	_____	_____
*Chronometer/watch with second hand Yes		☐	No	☐	_____	_____
* Thermometer for thermo Yes		☐	No	☐	_____	_____
*Thermos or flask	Yes	☐	No	☐	_____	_____
*Refrigerator	Yes	☐	No	☐	_____	_____
* Syringes	Yes	☐	No	☐	_____	_____

(3cc #21, 5cc, Insulin)

Pharmacy:

*Thrimetoprim– sulfa	Yes ☐	No ☐	_____	_____
*Amoxicilline	Yes ☐	No ☐	_____	_____
* Benzatinic Penicillin	Yes ☐	No ☐	_____	_____
* Procaine Penicillin	Yes ☐	No ☐	_____	_____
*Acetaminophen	Yes ☐	No ☐	_____	_____
*Oral Rehydration Salts	Yes ☐	No ☐	_____	_____
*Vitamin A	Yes ☐	No ☐	_____	_____
*Cotton	Yes ☐	No ☐	_____	_____
*Alcohol	Yes ☐	No ☐	_____	_____

Vaccine:

* B.C.G.	Yes ☐	No ☐	_____	_____
*Polio/Sabin Yes	☐	No ☐	_____	_____
*S.R.P.	Yes ☐	No ☐	_____	_____
*D.P.T.	Yes ☐	No ☐	_____	_____
*H.I.B.	Yes ☐	No ☐	_____	_____
* T.T.	Yes ☐	No ☐	_____	_____
*Pentavalente	Yes ☐	No ☐	_____	_____
* T.D.	Yes ☐	No ☐	_____	_____

Materials / paperwork:

*Procedures Manual	Yes ☐	No ☐	_____	_____

*Child's Vaccination Card Yes ☐ No ☐ _____ _____

* Reference / counter reference of pneumonia cases Yes ☐ No ☐ _____ _____

* IMCI Protocols (AIEPI) Yes ☐ No ☐ _____ _____

* IMCI Documents Yes ☐ No ☐ _____ _____

*A.T.1 Yes ☐ No ☐ _____ _____

* Evolution Sheets (< 2 months, 2-4 months) Yes ☐ No ☐ _____ _____

Infrastructure:

* # of cubicles: _____

* # of Latrines or sanitary services for patients_____

* # of latrines or sanitary services for personnel_____

* Potable water: _____