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**PROJECT CONCERN INTERNATIONAL**  
**GUATEMALA CHILD SURVIVAL V PROJECT**  
**Santiago Atitlán, Guatemala**

**FINAL EVALUATION**  
**U.S. AID CHILD SURVIVAL V PROJECT**  
**December, 1992**

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## TABLE OF CONTENTS:

	Page
Glossary of Acronyms .....	2
Executive Summary .....	3
I. Introduction .....	4
II. Purpose .....	4
III. Methodology .....	4
IV. Evaluation .....	5
A. Project Focus and Use of Funding .....	5
B. Organizational Development .....	5
C. Specific Interventions .....	6
C.1 Expanded Program of Immunizations .....	6
C.2 Oral Rehydration Therapy .....	8
C.3 Growth Monitoring .....	8
C.4 Acute Respiratory Infection .....	9
C.5 Maternal Health and Child Spacing .....	9
D. PVO/Host Government Cooperation .....	11
E. Sustainability .....	13
F. Project Finances .....	13
G. Lessons Learned and Recommendations .....	13
 <b>APPENDICES</b>	
Appendix A: Sustainability Questions .....	16
Appendix B: Pipeline Information	

## GLOSSARY OF ACRONYMS

ARI	Acute Respiratory Infection
BCG	Tuberculosis Vaccine
CHW	Community Health Worker
CS	Child Survival
DIP	Detailed Implementation Plan
DPT	Diphtheria, Pertussis, and Tetanus
EPI	Expanded Program for Immunization
GM	Growth Monitoring
KAP	Knowledge, Attitudes and Practices
MCHV	Maternal and Child Health Volunteers
MSPAS	Ministerio de Salud Pública y Asistencia Social, Guatemala (Ministry of Health)
NGO	Non-Governmental Organization
ORS	Oral Rehydration Solution or Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PCI	Project Concern International
PVO	Private Voluntary Organization
TBA	Traditional Birth Attendant
USAID	U.S. Agency for International Development
WHO	World Health Organization

### Executive Summary

A final evaluation of Project Concern International's (PCI) Child Survival V (CS V) project in Santiago Atitlán, Sololá, Guatemala, was carried out from June 10, 1991 to October 23, 1991 by an independent evaluator, Daryl T. Smith, in coordination with PCI Guatemala staff.

Two large community surveys were performed during the evaluation period in order to determine CS V progress. One of the surveys was conducted in July, 1991 to determine vaccination coverage in the Santiago municipality, and the other was carried out in October, 1991, to address the remaining child survival components. In addition, data was collected by the Community Health Program Director, from several small KAP surveys, small focus groups, and the health information system used by PCI/Guatemala and the CHW's. Both sets of data will be referred to throughout this document in order to arrive at the most accurate representation of CS V strengths and weaknesses.

CS V funding has been used primarily to refine and improve existing PCI activities in the Santiago Atitlán area and to expand activities to San Jose Chacayá. Funding has permitted PCI to increase its immunization coverage of infants and children in the region, conduct EPI training for CHW's and TBA's, increase the referral of women for tetanus toxoid vaccination, expand the enrollment of children in the growth monitoring program, and increase the number of at-risk pregnant women referred to health services.

In March, 1990, USAID mission funding for EPI and ORT was suspended due to problems with MSPAS financial management. While not directly impacted, MSPAS-PCI relations were influenced, and the supplies of vaccines and ORS were impaired.

The 1989 DIP sought an attendance rate of 90% of CHW's for a six-session training course on EPI. 113 CHW's participated in this course, 18% more than were required.

In addition, 19 TBA's were to receive a training course on EPI, with emphasis on tetanus toxoid vaccination for women of childbearing age. The benchmark was that 90% of the TBA's or 17 of the 19 attend the training course. 18 TBA's attended the course, one more than required.

Some important lessons learned during this project evaluation include the need for greater emphasis on the improvement of the health information system and better supervision of the planning and implementation of the project components. As in all societies, barriers to change can be tremendous, and surmounting these barriers requires time. These considerations must be factored into the formulation of the objectives of any community development program.

In addition, two recommendations are made to reduce dependency and promote program self-sufficiency: 1) conducting a thorough investigation on ways of improving the efficiency of the hospital program resources, thus enabling the hospital program to generate more of

its own funding to decrease dependency, 2) members from both the hospital and community health programs are trained on writing grant proposals, and on available funding sources.

## **I. Introduction**

PCI initiated its activities in Santiago Atitlán, in the central highlands Department of Sololá in the mid-1970's. Of a population of 28,984 (Sololá Health Area Diagnostic, 1989), approximately 95% of Santiago's population are members of the Tzutuil linguistic group of Maya Indian descendants. Although by definition an urban setting, almost all of Santiago's household heads sustain their families by small-scale farming, migrant labor on coastal plantations, and/or labor on area farms.

Until the end of 1990, Santiago was afflicted with political and social unrest, as nearly 200 Guatemalan Army soldiers were stationed in the region. Killings and disappearances after almost a decade of activity in the area are believed to number 400. In December, 1990, an incident occurred in which 13 civilians were killed due to several intoxicated soldiers' opening fire on a group of people. This incident resulted in international attention and the subsequent withdrawal of all military from the municipality of Santiago Atitlán. Since this time, a new era of relative peace has commenced in Santiago.

Prior to the implementation of CS V, PCI had cultivated an integrated development program encompassing work in agriculture, income generation, appropriate technology, sanitation and child survival in Santiago Atitlán. In turn, this project had built upon PCI's primary health care program, established in 1976 in Santiago Atitlán.

The project has been supported in part by matching grant funds from 1979 through 1989. In 1986 an AID Child Survival II grant enabled an increase and reorganization of maternal and child services offered throughout the municipality of Santiago Atitlán. More recently PCI has applied for CSVII funds to support activities in Solola.

## **II. Purpose**

This evaluation will be used to determine:

- A. What can we learn from this project experience which can help us to improve child survival projects?
- B. How well PCI did in reaching the goals it set out to accomplish?

## **III. Methodology**

The evaluation consisted of field site observations, document reviews, and interviews with hospital and community program staff. The evaluator also conducted interviews with MSPAS personnel in Santiago, and more than a dozen CHW's. Questionnaires were distributed to nearly every hospital and community program employee to give them an opportunity to express their opinions anonymously about hospital and community program operations and other project-related issues. The evaluator spent over four months at the project site.

#### **IV. Evaluation**

##### **A. Project Focus and Use of Funding**

The goals of CS V, initiated in September, 1989 were: 1) the extension of the CS program beyond Santiago to the municipality of San Jose Chacayá, a small community (pop. 915) which was both an ideal and realistic goal for a first move into a new health district; 2) the continuation and strengthening of activities begun in Santiago Atitlán. Maternal and child health care were targeted in certain areas, with an effort made to increase community awareness of health needs and the presence locally available health services, particularly Clínica Santiaguito.

CS V sought to focus its energies initially on ORT, including training in the preparation of ORS, the distribution of ORS packets, training in ORT, and the nutritional rehabilitation of children following episodes of diarrhea and dehydration. Nutritional centers and the mother's educational center were to be used as both referral and treatment stations for children suffering from malnutrition or severe diarrhea and dehydration.

The promotion of immunizations and the training of community volunteers to aid the MSPAS in the provision of immunizations was a further focal point for CS V's San Jose Chacayá expansion. A clinical medicine component, whereby PCI's doctors and nurses would see mothers and children and either treat them or make referrals to the Sololá National Hospital, when necessary, was another element of the CS V project.

Training of community volunteers (mostly non-literate), was to take place throughout all of the phases of intervention activities.

##### **B. Organizational Development**

###### **PCI/GUATEMALA STAFF**

Clifford Sanders, PCI/Guatemala's Country Director was the only expatriate in the PCI program. His time was divided between Santiago's existing program and the new San Jose Chacayá program, and his responsibilities included management of the health information system.

Dr. Angelica Bixcul, Director of Community Health Programs, acted as supervisor of the directors of the respective nutrition centers and health clinics. PCI's HQ staff was responsible for the technical backstopping of the project. (The project also received local technical support from INCAP.)

### Health Information System

Statistical reports prepared by project management are produced on a monthly basis and are monitored and checked for accuracy by the Director of the Community Health Program and her assistant. Data collection is undertaken using the Basic Monthly Report Form, Referral Coupon, Mother and Child Vaccination Cards, and Map Sketches, which can be completed by the CHW's regardless of literacy level.

Individual records are kept for each patient, on contraceptive users, infant health, prenatal control, for the number of deliveries, and for pneumonia and tuberculosis patient control. In addition, mothers maintain vaccination and growth monitoring cards. Mothers in the maternal health program keep individual records of contraceptive methods used, and another one for tetanus toxoid vaccinations.

## **C. Specific Interventions**

### C.1 Expanded Program of Immunization (EPI)

PCI's stated objective in CS V for vaccination coverage was the achievement of complete immunization of 45% of the children ages 0-11 months in the Santiago municipality with DPT3, Polio3, Measles, and BCG. The 1989 Sololá Health Area Diagnostic of the MSPAS were used as PCI's baseline data for vaccination coverage in setting these goals.

PCI conducted surveys in July, 1991 to determine the rate of vaccination coverage of children from 0-11 months in Santiago Atitlán. PCI hospital and community program staff conducted a thorough community survey covering more than 500 families with children under age 5. PCI's evaluation revealed a much higher rate of coverage than the MSPAS survey indicated. The results were as follows:

Polio 3	74%
DPT 3	60%
Measles	49%
BCG	48%

It should be noted that the vaccination cards of infants which were surveyed were considered completed if they were determined to be at the correct stage of vaccination for the infant's age, although in some cases the infants were too young to have completed the entire vaccination scheme. Also, in conformance with MSPAS criteria, we included those children who did not have their cards in the group of

children not vaccinated, although it is likely that some of them had already been vaccinated but had lost their cards.

In addition to this age group, PCI targeted children from ages 1-5, who should have already completed their vaccination schemes, and who could be used as a basis for comparison with the infants, 0-11 months. The MSPAS continues to target these children for vaccination until they have completed the entire vaccination program. For this age group, the surveys revealed the following levels of vaccination coverage:

Polio	64%
DPT	62%
Measles	56%
BCG	49%
Completed Entire Vaccination Scheme	44%

If those children who did not present their vaccination cards been excluded from the results, these figures would have been higher.

According to PCI's survey, the goal of 45% coverage for each of the four individual childhood immunizations was surpassed. Although only 44% of the children 1-5 years of age have completed their entire vaccination scheme, significant progress has been made in this area.

From the project's EPI objective, an output goal of the number of infants completely vaccinated, was created. An operational target of 520 infants by July, 1991, was the result. PCI found that 58% or 687 infants in Santiago municipality were completely vaccinated. Results therefore exceeded our goals, with 167 or 13% more infants completely vaccinated that had been targeted.

CS V goals called for increasing by 100% the number of women of childbearing age (15-44 years) with two doses of tetanus toxoid in the Santiago municipality. According to the 1989 figures, a 100% increase would have equalled 3,246 individuals, roughly 52% of the estimated 6,222 women of childbearing age in the Santiago municipality. PCI's sample indicated that approximately 40% of the women of childbearing age had received their second dose of tetanus toxoid, a total of 2,488 women in Santiago. Therefore, while falling short of the 52% coverage goal, a dramatic improvement in the rate of coverage is evident.

An objective of an 80% increase in the number of women referred for TT vaccination was established. As a result of the CHW and TBA training courses described below, the 80% figure was surpassed. By July, 1991, an average of 16 women were referred per month, representing a 171% increase. Higher referrals should in turn bode well for the continued increase in the rate of actual vaccination coverage in the future.

### C.2 Oral Rehydration Therapy

The ORT objective was to increase the number of families with children under 5 years using ORT correctly for the prevention of dehydration or rehydrating children with diarrhea, to 80% of the total in Santiago Atitlán and to 60% in San Jose Chacayá.

It seems that the goals of the ORT component were not attained, from the second large community survey conducted, it was seen that 41% of the more than 500 homes interviewed had at least one UNICEF Oral Rehydration Salts (ORS) packet in their homes at the time of the interview, and 51% of the families knew how to prepare the ORS correctly. The goal of 80% knowledge and usage was therefore not met, but it has been brought to our attention that our baseline figure from which we then created our objectives was not necessarily appropriate. The source of the baseline figure used was a KAP survey performed during CS II which indicated that 58% of families knew how to use ORT, were using ORS, and/or were referring their children to health services for severe diarrhea and dehydration. The criteria for the baseline figure therefore differed from CS V's goals, as the former included referrals. It is therefore likely that the baseline figures will be higher than those figures measuring only ORT knowledge and ORS usage, the criteria which represent the actual goals of CS V.

The level of public concern about cholera was high in the region, and as the major health provider in the region, PCI had a responsibility to address this crucial concern. With 125 cases of cholera diagnosed by November, 1991, the need to shift PCI's attention to the more immediate issues of cholera control, staff training, and community education was vital.

### C.3 Growth Monitoring

The primary objective of the growth monitoring component was to increase by 15% the number of children enrolled in the growth monitoring program by July, 1991. According to survey figures, 28% of the women interviewed weighed their children at least once at the Clínica de Niños, (a small, PCI-funded health clinic located in the center of Santiago); 8% at the nutritional center adjacent to the hospital, (Centro Nutricional de Panabaj); and 59% did not enroll their children in any program at all. Approximately 13% of the mothers surveyed brought their children to be weighed on a monthly basis.

The 1989 baseline figure indicated an average enrollment of 106 children per month. For the first six months of 1991, the average monthly enrollment in the two nutritional centers was 198 children, an 86% increase over the 1989 figures. Therefore, the objectives for this CS component were dramatically surpassed. (These numbers were obtained from the two directors of the nutritional centers whose

responsibilities include the maintenance of all the growth monitoring records for every child enrolled in their program.)

One of the output goals of the growth monitoring component was to prepare and carry out a KAP survey using focus groups to test the mothers' knowledge about nutrition, child development, and growth monitoring. The KAP survey was never completed, and therefore this goal and the related one of implementing training sessions corresponding to the results of the KAP survey, were not met.

#### C.4 Acute Respiratory Infection (ARI)

The ARI component's objective, as established in the 1989 DIP, was to enable 80% of CHW's to differentiate coughs and common colds from childhood pneumonia (according to WHO criteria), to educate families about home remedies, and to refer severe cases to the appropriate health facilities.

The ARI component's implementation was delayed due to the time involved in the vaccination campaign, and more recently due to the diversion of PCI's energies to the Cholera Prevention Committee.

PCI re-focused its attention on cholera at the expense of meeting the objectives of the ARI component. While the need for ARI remains, this component has been postponed until such a time as the cholera epidemic has passed or is under control.

#### C.5 Maternal Health and Child Spacing

One of the primary objectives in the area of maternal health and child spacing was a 100% increase in the number of women in Santiago Atitlán between the ages of 15 and 44 who have knowledge of and are practicing the recommended protocol for perinatal health care. Although the 1989 DIP lacked baseline figures, according to the Clínica Santiaguito's 1989 statistics, 842 women were receiving perinatal care at the hospital. By the first six months of 1991, this figure had increased by 921 women. If we extrapolate for a twelve-month period, this would indicate a 119% increase in women receiving perinatal health care. Therefore, during 1991, at least 30% of the estimated 6,222 women of childbearing age were either pregnant or postpartum, and sought pre or postnatal care at the Clínica Santiaguito. TBA's were visited by 27% of the women, while 14% of women went to the MSPAS's Centro de Salud. Of those women who sought some prenatal care, 3% were referred by CHW's, 39% by TBA's, and 52% by others (e.g. mothers, husbands). It was determined that 28% of the mothers received no prenatal care at all during their pregnancy, and 40% received two prenatal visits or less.

The second principle objective of the maternal health and child spacing component was to increase the number of women of childbearing age (15-44) in Santiago practicing contraception by July, 1991. There was no benchmark for this objective

in the DIP; one was to be established following a KAP test to be conducted by the community health program. According to a small KAP survey undertaken in 1989, approximately 8% of women or their spouses were using some form of contraception. By 1991, this figure had increased to approximately 14% of couples. The 14% figure represents an increase over the 1989 percentage, indicating that this objective was attained.

In addition to reaching these targets, CS V sought to conduct 2 KAP surveys with mothers, CHW's, and TBA's, to learn about perinatal health beliefs and practices, including child spacing. One KAP survey with a group including 17 TBA's and all 113 CHW's was completed.

The manual on maternal health education for non-literate TBA's to be produced was not completed on time, but has been produced and distributed.

A six-session training course for CHW's in recommended perinatal and child spacing practices, promotion, education, and referral was a further goal for CS V. The benchmark was 90% attendance. One hundred and eighteen CHW's received this training, but only in child spacing.

Another objective of the maternal health component was an increase in the number of at-risk pregnant women appropriately referred to health services. "At-risk" is defined as "pregnancy under 18 years old, pregnancies over 35 years of age, primipara, parity greater than 4 children, and women who have suffered from previous birth complications." In 1989, a total of 27 women, or approximately 2.25 at-risk pregnant women per month were referred to health services. In the first six months of 1991, approximately 3.3 at-risk women per month, or 40 women per year, have been referred to health services. This indicates a nearly 50% increase in the number of referrals over a two-year period.

Finally, although there was no formal breastfeeding component for CS V, the importance of breastfeeding for child survival is recognized and breastfeeding has been incorporated into all of the other components of CS V. The following are examples of how this has been articulated in the respective components:

1. **EPI:** Stress that the very first immunization received is through breastfeeding.
2. **ORT:** State that a breastfeeding child who suffers from diarrhea should continue to be breastfed in order to help prevent dehydration and maintain the supply of nutrients to the child.
3. **Growth Monitoring:** Emphasize the vital importance of breast milk on the proper growth and nutrition of the infant.

4. **ARI:** Explain that breastfeeding reduces the risk of a child's exposure to dirty bottles, diluted milk formulas, unsanitary drinking water, and numerous other sources of bacteria that can lead to ARI. In addition, state that when a child refuses to breastfeed, it is a good sign that the child is ill and should be referred to a health care facility.
5. **Maternal Health and Child Spacing:** Mention that it has been proven that if breastfeeding is carried out frequently during both the day and night, hormonal changes occur which sometimes prevent ovulation until the baby is weaned.

#### **D. PVO/HOST GOVERNMENT COOPERATION**

##### **B.2 Use of Technical Resources**

During this grant period, PCI/Guatemala benefitted from the technical assistance of myriad national organizations, including the Asociación de Servicios Comunitarios de Salud (ASECSA), Asociación Pro-/Bienestar de la Familia (APROFAM), Centro Universitario de Noroccidente (CUNOC), la Universidad de San Carlos (USAC), Vivamos Mejor, La Leche League, and the MSPAS. Dean Millslagle, Judy Simons, and Richard Covington of PCI/San Diego visited PCI/Guatemala and provided technical assistance during this two-year period. Four volunteers provided assistance in the implementation and training of the child survival interventions and in the final evaluation of the project.

Dr. Angelica Bixcul attended an AID workshop for PVO's funded by AID and involved in child survival projects, in Quetzaltenango at the beginning of the funding period. She also attended another CS workshop in Tegucigalpa, Honduras, at the end of the funding period. Clifford Sanders attended an AID-funded seminar on CS in Mexico City approximately halfway through the two-year program. An outside consultant helped in the development of the DIP.

##### **MSPAS**

The area-level MSPAS is where PCI's training procedures, target populations, work areas, and information systems are planned and coordinated between the Country Director and the Director of Community Health.

The district-level's coordination with PCI is crucial, since this is where the programs are implemented. All health districts have a health center, usually located in the principle town of the district. Also found in the health districts are one or more health posts. The MSPAS staffs these posts. What follows is a list of MSPAS workers in the district:

Santiago Atitlán: 1 Doctor, 1 Graduate Nurse, 1 Environmental Health Inspector (ISA), 1 Rural Health Technician (TSR), 1 Auxiliary Nurse (AUX)  
 San Pedro La Laguna: 1 Doctor, 1 AUX  
 San Juan La Laguna: 1 ZUX, 1 TSR  
 Santa Lucia Utatlan: 1 Doctor, 1 Gr. Nurse, 1 ISA, 2 TSRs, 4 AUXs  
 San Jose Chacayá: 1 AUX  
 Santa Maria Visitación: 1 AUX  
 Santa Clara La Laguna: 1 Doctor, 1 AUX  
 San Pablo La Laguna: 1 Doctor, 1 Gr. Nurse, 1 ISA, 1 TSR, 3 AUX  
 San Marcos La Laguna: 1 AUX  
 Santa Cruz La Laguna: 1 AUX

### Community Health Workers

When CS V began, there were 86 CHW's in Santiago Atitlán who participated in a variety of training programs. There are now 124 active CHW's, including 11 in San Jose Chacayá. The CHW's act as health promoters by visiting a selected number of homes in their respective neighborhoods on a monthly basis, thereby promoting changes in health behavior and attempting to improve the utilization of existing health services through referrals and education. These monthly home visits, coupled with weekly group educational meetings enable the CHW's to focus their efforts on five or six principle components of the child survival program.

The CHW's participate in training for ORT, vaccinations, ARI, and other health-related topics. As per PCI's goals in CS V, a six-session training course on EPI was implemented, which included the promotion of vaccinations through education and referrals. 113 CHW's attended the course, or 18% more than were required. TBA's were also trained in the promotion of tetanus toxoid immunization and a manual on maternal health education for non-literate TBA's was being produced. The CHW's, although not remunerated for their services do acquire social status within the community as a result of their community involvement, increased responsibilities, and continuing training and education.

PCI works in close cooperation with the MSPAS, and all project activities are in complete accord with MSPAS policies. PCI and the MSPAS have worked closely together in the promotion, organization, and implementation of the EPI component in particular. Through the exchange of knowledge, improvements in the training of both PCI and MSPAS staff have been undertaken, collaboration with the CHW's in the completion of the channeling process has been furthered, and preparations for a cholera epidemic have been initiated by forming committees to deal with prevention through

education, environmental awareness, and related topics. The MSPAS' Centro de Salud accepts all patients referred by the CHW's and TBA's, and in turn refers malnourished and at-risk children to PCI's two nutritional rehabilitation centers.

Meetings between the Directors of both the hospital and community health programs and the Director of the Centro de Salud are held on an almost weekly basis. During these meetings, information on current activities is exchanged, and future activities requiring close collaboration between the organizations are planned. These activities include vaccination campaigns, training sessions, information sharing, etc.

PCI has a ministerial agreement with the government of Guatemala to implement health programs in coordination with MSPAS policies. Any information requested by MSPAS is provided by PCI/Guatemala and any legal, customs, and tax problems are handled through the MSPAS' International Relations section. The basis for this agreement between PCI and the MSPAS is through the *Convenio* which is renewed each year by an exchange of letters.

**E. Project Sustainability**

See Appendix A for sustainability questions

**F. Project Finances**

See Appendix B for Project Pipeline Information.

**G. Lessons Learned and Recommendations**

As with all community-level projects in a country burdened by political, economic and social problems, the time factor is crucial in sustainability and in adoption of new ideas and practices. Some of the issues which CS V addressed, such as vaccinations and family planning are not readily culturally acceptable. Therefore, as always in the formulation of objectives, a long-range view must be taken and realistic figures arrived at for the period in question.

The 1989 DIP for CS V sought to implement a number of KAP surveys, several of which were not completed during CS V. KAP surveys are very time-consuming and entail a great deal of planning, and it is easy for them to fall to the wayside when more immediate health and training concerns are evident. However, the importance of the KAP surveys cannot be underestimated. One way to facilitate the implementation of KAP surveys

would be to undertake fewer, but with a larger sample group and with a larger set of issues to be addressed. In order to more closely identify and gain a better understanding of the needs of the population of the Santiago region, it is imperative that planned KAP surveys are carried out in a timely fashion.

The training of CHW's has been successful, but there has been some evidence of differences in the effectiveness of some CHW's over others, as certain areas of the Santiago municipality were found to be lagging behind others in their knowledge of ORT, diarrheal diseases, etc. Emphasis on the importance of the CHWs' role in community education and continual training sessions are necessary, therefore, to help those CHW's who are less effective in communicating the correct messages to the population to get those messages across. In order to avoid contention and duplicity in duties, it would also be useful to better articulate and define the different roles of the CHW's and the TBA's.

The health information system needs to have greater supervision by the Country Director and increased technical assistance in order to enhance its effectiveness. The importance of accuracy in data collection and compilation needs to be stressed in order to ensure that the information received is as exact a representation of the community's needs and project's strengths and weaknesses as possible. Communication in general must also be improved so that the data collected is sufficient and representative of the population.

One of the positive outcomes of the cholera epidemic has been that for the first time, community leaders, school teachers, foreigners residing in Santiago, church ministers, priests, health officials from MSPAS and the Clínica Santiaguito, have all gotten together in an attempt to educate the community about the dangers of cholera, how to prevent it, etc. In addition, these individuals are beginning to pressure the mayor into action, urging him to spend the town's funds on improving sanitation, chlorinating the water, and related projects. The relationship that has developed among participants should continue to be nurtured, and both the community health program and the hospital program should use these persons as resources in the effort to educate and change health behaviors in the population, as a complement to the CHWs' work. It should, however, be emphasized, that in order for this to be effective, it is vital that these persons relay the same messages to the community that the CHW's are, in order to prevent a conflict of information or a loss of credibility.

As the population of Santiago becomes increasingly dependent on modern pharmaceutical products, the hospital and the Clínica de Niños should be able to benefit. Many of the people put great faith in the pharmacists' recommendations, many of whom are not properly trained to prescribe

medicines for various illnesses. The majority of the population will go to the pharmacies first when they or a family member are ill, and often spend money on unnecessary medicines which have been recommended by the pharmacists. Quite often, they will later end up at the hospital seeking a solution for the same problem, resulting in their purchasing medicine a second time. If the hospital could attract these people before they go to the pharmacies, they could generate more money with the sales of their medicines (10% profit margin), while saving residents this "double expense." It is therefore also vital that the health facilities are well supplied with medicines.

**Appendix A. Sustainability Status Questions**

- A1. PCI believes that there continues to be great need for Child Survival activities in the region.
- A2. Local Institutions such as municipal committees, parent's groups, CHWs and community leaders are being strengthened technically and are being organized to take control of local CS interventions. MOH and private health care centers in the department of Solola are also being strengthened to improve services to meet increased community demand.

**B. Sustainability Plan**

- B1. PCI/Guatemala's intentions are to strengthen and improve community resources; where national NGO's exist, try to get the local NGO's to support the communities resources; where no local organization exists, establish one.
- B2. To date, CHWs are starting to be incorporated into the sustainability process by having them take over responsibility for organizing and managing community parent's groups. Over 100 CHWs will be called upon to organize and educate the mothers and fathers in the parents' groups to respond to and resolve the health problems their children face.
- B3. No commitments have been made.
- B4. N/A

**C. Community Participation and Perception of Project Effectiveness**

- C1. The community outreach program works through maternal and child health volunteers (CHWs), carefully chosen to form mothers' committees. The project has established a functional network in the city of Santiago. Through home visits and group educational meetings, the CHWs promote changes in the health behavior of their neighbors with respect to the utilization of health services. Examples are: participation in priority programs such as immunizations; management of dehydration and diarrheal disease throughout the use of ORT; recognition of malnutrition through routine growth monitoring and well child services; implementation of measures to reduce the risks of pregnancy, delivery, and the postnatal period; and the identification and referral of ALRI patients.
- C2. Twelve health committees are functioning. Each meets once a week. Each meeting lasts approximately 2 hours. Community members recommend other

community members, and they are very representative of the local community. All serve as volunteers.

- C3. Members of the mothers' committees receive classes on a regular basis on such subjects as diarrheal disease control, personal hygiene, signs/symptoms of dehydration, how to mix the oral salts solution, why immunize your child, etc. The last meetings focussed on birth spacing. A decision was made to explore the potential for TBAs to work in closer coordination with modern health centers.
- C4. Local leaders were not interviewed with this purpose in mind.
- C5. The communities of Santiago and Cerro de Oro have contributed the physical structures for their community clinics and the equipment required to operate them. This will guarantee that the communities have a location for health service provision well into the future. Likewise, the volunteer time provided by CHWs and others ensures that community level efforts can continue in the future if proper training and management is undertaken in CSVII.

**D. Institutional Sustainability-Strengthening Local Management**

- D1. Aprofam, Incap, and Asecsa are a few of the organizations that have assisted PCI in meeting specific technical needs in training staff and in the design of research projects. PCI has always maintained close ties with the MOH and has assisted the regional MOH personnel in diversity training. Currently, PCI is coordinating most CS interventions with the MOH with particular attention to EPI and national vaccination campaigns.
- D2. To date, management skills have received secondary attention behind technical skills in delivering CS interventions. Once MOH and community members have the CS intervention skills necessary, PCI will include management training to sustain activities.
- D3. MOH staff were not interviewed with this purpose in mind.
- D4. When PCI began its activities in Guatemala, the ultimate objectives were self-sufficiency and the utilization of services already provided by government agencies. The MSPAS has very limited resources, and has not been able to provide the types of services necessary for PCI/Guatemala to become self-sufficient. As a result, a dependency has been created, particularly by the hospital program at the Clinica Santiaguito, for the CS grant money.

Also, the MOH has a real problem in maintaining staff in Santiago, due to the isolation and the continuous "political unrest" in the area.

- D5. Since no counterpart organizations have come forward with funds to support CS activities, it is unsure if the management, administration, supervision and salary costs entailed in the project will be covered after PCI leaves.

**E. Monitoring and Evaluation of Sustainability**

- E1. # of CHWs trained/functioning  
# of mothers committees  
# of TBAs trained/functioning  
Financial information from the clinics (revenues and expenses)
- E2. PCI has been able to train new CHWs and have a large proportion functioning (+90%) at any one time. The clinics are suffering from rising costs due to new expenses of importing medicines and equipment. The clinics are forced to operate from the local medical supply market and the increasing expenses are reducing sustainability.
- E3. No local agencies participated in the mid-term or final evaluation.

**F. Calculation of Recurrent Costs**

- F1. None of the categories was much higher or lower than expected. Political violence mandated the ex-pat director outside of Santiago and travel/ expat costs were a little higher. The clinic and other program costs increased due to increases in input costs.
- F2. Costs to maintain program activities after CSV include \$35,000 per year for the Clinica Santiaguito and a similar amount for the community health program.
- F3. Recurrent costs for the clinic are those important expenses that are not covered by existing levels of income.

Recurrent costs for the community health program are less defined. Estimates about minimum staffing required and program costs vary based on future programmatic plans. If the community wishes to maintain training and new community integration within the project, costs could be much higher.

- F4. For the Clinica Santiaguito, \$35,000. For the community health program, a rough estimate would be close to \$35,000 a year with \$15,000 being for

salaries/benefits, \$10,000 for materials, \$2,500 for meetings/travel/per diem, \$ 2,500 for monitoring/evaluation, and \$5,000 for everything else.

The costs are reasonable for the environment.

- F5. Since the clinic has income of approximately \$10,000, the other \$25,000 required will be difficult to cover. Increasing fees for services will reduce patient services. PCI will need to examine other means to support the clinic's activities.

The community health program currently has little income. The costs are not going to be sustainable by the end of CSV.

#### **G. Cost Recovery Attempts**

- G1. What has been learned is that the only realistic approach to sustainability is to develop on an incremental basis the resources which the community can generate (labor, goods, agricultural products, and money), which can supplement to a greater degree the extremely limited resources of the MSPAS.

PCI has used fees for services as an income supplement for the Clínica Santiaguito for many years. At its high point in 1987, fees for services were able to cover approximately half of the clinic's costs; however, this proportion dropped to about one-third in 1988-89 due to increases in operating costs and the inability of community members to pay increased fees. In CSV, PCI tried to focus cost recovery on the clinic and increased fees for services by 50% for consultations and 25% for lab/dental services.

- G2. PCI has developed a rotating pharmaceutical fund for the clinic that maintains a minimum supply of medicine. This fund amounts to \$15,000 a year and is not included in the recurrent costs above.
- G3. Health staff were responsible for the cost recovery aspects with the assistance of the Country Director. This took community health staff and clinic staff away from their work and reduced their time providing quality services to the public. It also reduced the amount of medicine available as demand and prices rose simultaneously.
- G4. The project recovered \$15,000 for pharmaceuticals and \$10,000 for clinic services. The recovery was worth the effort because without any cost recovery the clinic would have to close. A consistent supply of medicines in the

hospital pharmacy would be beneficial, as a nominal 10% profit is made from each sale. The supply must, however, be reliable in order for this to be a significant source of resources, as shortages in supplies will result in patients going off-site to purchase needed medicines.

- G5. The poor circumstances of the community prevent sufficient income for health services that require pharmaceuticals, equipment, and trained staff. The national health system does not charge for health services.
- G6. Since PCI has always charged something, no change in our reputation has taken place. The poorest of the poor could not afford medicines, this reduced their access and created some inequality.

#### **H. Income Generation**

- H1. The only income generation activities active were initiated under CSII. These include a latrine program and a lorena stove program. At the end of CSV both are sustainable and recover their costs.
- H2. The revenues only covered the costs of the latrines and the stoves.
- H3. These succeeded as individual projects, but cannot be expected to cover the costs of the other health activities.
- H4. Since PCI has always charged something, no change in our reputation has taken place.



1991 COUNTRY PROJECT PIPELINE ANALYSIS: REPORT FORM A  
PVO/COUNTRY PROJECT GUATEMALA - CSV

FIELD Actual Expenditures to Date (9/01/89 to 8/31/91) Projected Expenditures Against Remaining Obligated Funds ( / / to / / ) Total Agreement Budget (Columns 1 & 2) (9/01/89 to 8/31/91)

COST ELEMENTS	Actual Expenditures to Date (9/01/89 to 8/31/91)			Projected Expenditures Against Remaining Obligated Funds ( / / to / / )			Total Agreement Budget (Columns 1 & 2) (9/01/89 to 8/31/91)		
	AID	PVO	TOTAL	AID	PVO	TOTAL	AID	PVO	TOTAL
<b>I. PROCUREMENT</b>									
A. Supplies	17650	22626	40276				75857	29927	105784
B. Equipment	36502	4334	40835				28811	11368	40179
• C. Services/Consultants									
1. Local	11920	3650	15570				8751	3452	12203
2. Expatriate	152	0	152				0	0	0
SUB-TOTAL I	66224	30610	96833				113419	44747	158166
<b>II. EVALUATION/SUB-TOTAL II</b>									
A. Consultant/Contract	16236	743	16980				1783	703	2486
B. Staff Support									
C. Other									
SUB-TOTAL I	16236	743	16980				1783	703	2486
<b>III. INDIRECT COSTS</b>									
Overhead/field offices									
(1) <u>34.07%</u> allowable	73053	32700	105753				111313	43916	155229
SUB-TOTAL III	73053	32700	105753				111313	43916	155229
<b>IV. OTHER PROGRAM COSTS</b>									
A. Personnel (list each position & total person months separately)									
1) Technical	102707	37509	140216				89910	35470	125380
2) Administrative	52910	28674	81584				68728	27115	95843
3) Support									
B. Travel (Short Term)									
1) In country	16897	4764	21661				31676	12497	44173
2) International	5162	0	5162				0	0	0
C. Other Direct Costs (utilities, printing, rent, maintenance, etc)	17700	6763	24462				16210	6395	22605
SUB-TOTAL III	195376	77709	273085				206524	81477	288001
<b>TOTAL FIELD</b>	350889	143301	494190				433039	170843	603882

/ Excludes Evaluation Costs

NOTE: Differences in totals due to rounding.

22

1991 COUNTRY PROJECT PIPELINE ANALYSIS: REPORT FORM A  
PVO/COUNTRY PROJECT GUATEMALA

Actual Expenditures to Date  
( 9 / 01 / 89 to 8 / 31 / 91 )

Projected Expenditures Against  
Remaining Obligated Funds  
( \_\_\_ / \_\_\_ / \_\_\_ to \_\_\_ / \_\_\_ / \_\_\_ )

Total Agreement Budget  
(Columns 1 & 2)  
( 9 / 01 / 89 to 8 / 31 / 91 )

TOTAL - FIELD & HEADQUARTERS

AID	PVO	TOTAL
149111	54731	203842
350889	143301	494190
500000	198032	698032

AID	PVO	TOTAL

AID	PVO	TOTAL
66961	26421	93382
433039	170843	603882
500000	197264	697264

TOTAL HEADQUARTERS

TOTAL FIELD

TOTAL

*Handwritten initials*