

**PROJECT CONCERN INTERNATIONAL,**

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**Child Survival VII:  
Solola: Children of the Highlands  
Department of Solola, Guatemala  
September 1,1991-August 31, 1994**

**COOPERATIVE AGREEMENT NO. PDC-0500-A-00-1042-00**

**MID-TERM EVALUATION  
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OFFICE OF PRIVATE AND VOLUNTARY COOPERATION**

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## INTRODUCTION

This Child Survival VII (CS VII) project is implemented by Project Concern International (PCI) in Solola Department, in the western highlands of Guatemala. The impact area includes four municipalities: San Jose de Chacaya, San Juan La Laguna, Santiago Atitlan and Panajachel (Patanatic village) with a total population of 41,599. This area comprises 25 communities, three of them are urban and 22 are rural. Most of the communities are accessible by vehicle, the most distant being 70 km. (two hours) from Santiago Atitlan, the operations center of the program. The area includes three different ethnic groups: Tz'utujil, Kachiquel and Quiche and the same number of languages.

As cited in the first annual report, according to the Guatemalan MCH National Survey, 72% of women are illiterate. The Ministry of Health (MOH) has reported that more than 46% of the population do not have access to water and most water systems are not potable'. More that 60% of the population has no access to sewage systems nor latrines<sup>2</sup>. The National Institute of Statistics estimated that 80% of the rural population live in poverty; in the department of Solola more than 55% live in extreme poverty conditions<sup>3</sup>. The impact area has an estimated infant mortality rate (IMR) of 72 per 1,000 live births<sup>4</sup>. Under-reporting is high.

### 1. ACCOMPLISHMENTS

The PCI/Guatemala Child Survival VII project has been operating 24 months to date, and is an expansion of work begun in 1986 with three years of CS II, and subsequently, one year of CS V funding.

For ten years-- until 1991-- PCI's project operated under a tense modus operandi created by the military occupation of Santiago Atitlan. PCI worked with mothers who came into the nutrition centers and received food supplements for their families. Only small groups were allowed to gather under the prevalent rules of the occupation. Under those conditions, the mothers received training and were encouraged to share their knowledge with 2 or 3 neighbors. Owing to the security restrictions, extensive work with community health workers was not possible under the military regime.

The CS II project began in 1986, and following from the initial community work by Betsy Alexander and technical assistance from the Institute of Nutrition for Central America and Panama (INCAP), the resistance of the indigenous people of Atitlan to immunizations was taken into account for the refinement of the community strategy. Thus it was decided that the best strategic entry for Child

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<sup>1</sup> Analisis de Situacion del Niño y la Mujer. UNICEF, Guatemala 1991.

<sup>2</sup> Analisis de Situation del Niño y la Mujer. UNICEF, Guatemala 1991.

<sup>3</sup> **3** Plan Nacional de Desarrollo 1992-1996. SEGEPLAN, Febrero 1992.

<sup>4</sup> Analisis de Situation del Niño y la Mujer. UNICEF, Guatemala 1991.

Survival interventions would be gained through diarrheal disease work, to gain the mothers' confidence, and set the stage for later work in the expanded program of immunizations (EPI).

CS II lasted for three years, and an extension grant for a fourth year was provided under CS V funding. CS V was educational in focus, with efforts concentrating on diarrheal disease training in urban and rural Santiago.

The military were forced to withdraw from Lake Atitlan at the beginning of 1991, just as CS VII was proposed. CS VII was conceived as an expansion project, facilitating outreach beyond Santiago to the rest of the Lake region, and an increase in the number of CS interventions.

Early 1991 also coincided with a slow return of the MOH, which began to re-initiate service delivery in Santiago. This was to prove timed to the PC1 expansion efforts outside of Santiago, and a reduction of focus to central Santiago. Because of the expansion efforts, it is possible that some opportunities were lost which might have contributed to consolidating the promotion and educational work in a Santiago flush with liberation from occupation. However, close cooperation with the MOH was still precluded in a community wary of government intervention.

The departure of the military meant that people could now assemble in large groups in the communities. PC1 responded by revising its approach to community health education and introducing a network approach using a large number of community health promoters.

An outbreak of cholera in **Solola** in 1991 led to a concentration of MOH efforts and resources in response. Child Survival interventions -- notably EPI --received less attention, which did not improve already low immunization coverage rates revealed in **PCI's** baseline survey. CS VII project activities got underway after a several month delay, because of the need to revise the Detailed Implementation Plan (DIP) after the original submission received an unacceptable rating. The revised plan reduced the number of expansion communities from ten to four, while retaining the most populous communities, and, in response to the baseline information, focussed efforts on EPI, CDD and maternal health. In order to reach the expansion areas, approximately 40% of material and human resources were shifted to these communities.

Thus, while PC1 has taken advantage of the new social and political freedom, it was unable to consolidate early efforts in Santiago prior to a geographical expansion, and still needs to strengthen its relationship with the MOH. However, significant progress has been made with a rural community approach which has achieved major inroads in prevailing practices and beliefs, and has ensured a sturdy foundation for eventually achieving CS coverage objectives. **PCI's** principal challenge is to sustain its commitment to community process and ownership even while it takes a second look at weaknesses in the urban program.

The potential beneficiary population according to the Detailed Implementation Plan is:

O-11 mo.		1,789
O-5 years		8,237
Women 15-44	9,568	
Births Expected		2,080

The evaluation team estimates that the project has been able to provide benefits to approximately two thirds of the women in fertile age, and three fifths of the children under five. Roughly half the expected births are being tracked.

It is important to note that the Midterm Evaluation Team did not expect much impact on service delivery at this time. Given the delay in revising the DIP, and a heavy focus on the community oriented process, it is impressive that the **PCI Solola** team has been able to report the services listed here. During the last two years, PCI has achieved the following:

### **ORT**

- 3,164 health talks about diarrheal disease.
- 4,986 ORS packets distributed.
- 1,030 meetings with women distributors regarding CDD.
- 109 Community Oral Rehydration Units installed
- 247 severe cases of diarrhea referred to doctors

### **Immunizations**

- 6,826 household visits about immunizations.
- 12,592 children and women referred for incomplete immunization coverage.
- 60 meetings with women regarding EPI.
- 6,769 children vaccinated
- 404 pregnant women vaccinated
- 265 women in fertile age vaccinated
- 773 children and 450 women enrolled in double registry

### **Reproductive Health**

- 1,420 household visits about pregnancy.
- 3,215 household visits about family planning.
- 1,086 household visits by trained midwives about pregnancy.
- 473 meetings on family planning methods.
- 48 community distribution posts installed and functioning.

### **Pneumonia Control During the First Project Year**

- 4,168 household visits about respiratory infections.
- 304 referrals for moderate and severe cases of respiratory infections..

### **Other project activities:**

- Training of **CHWs** in data collection techniques.
- Training of 38 women and 10 men **CHWs** in community-based distribution methods of contraceptives.
- Training of 334 **CHWs** in Pneumonia Control, Growth Monitoring, EPI, Reproductive Health, Nutrition and Vitamin “A”, and Control of Diarrheal Disease.
- 33,886 house calls (channeling visits) made by **CHWs**.
- 57 latrines installed in spin-off activities.
- 1,907 deliveries attended by PCI-trained traditional birth attendants (at home).
- Installation of 20 improved **Lorena** stoves in residences from spin-off activities.
- Programming of 18 radio spots.

- 0 A total of 2,645 children enrolled in the growth monitoring program.
- 0 8,976 medical consultations.
- 0 7,755 persons benefitted from: laboratory, pharmacy, and dental laboratory tests.
- 0 146 new users of contraceptives.

In May and June of 1992, PC1 participated in two national immunization campaigns. PC1 promoted immunizations as well as applied them in the municipality of Santiago Atitlan and surrounding communities throughout late 1992 and 1993. In the expansion areas, PC1 supported the MOH's national campaign in the municipalities of Santa Lucia Utatlan and San Pedro La Laguna. The following number of children under 1 year of age received vaccinations:

	Polio 3	DPT 3	<u>Measles</u>	BCG
	249	3 1 3	405	435
From Ott 92 - Aug 93	<b>500</b>	<b>500</b>	<b>444</b>	<b>312</b>

The following children ages 1-4 years old received vaccinations:

	<u>Polio</u>	<u>DPT</u>	<u>Measles</u>	<u>BCG</u>
	314	<b>246</b>	<b>375</b>	159
From Ott 92 - Aug 93	180	180	<b>258</b>	<b>288</b>

During the last two years, PC1 helped 484 pregnant women and 379 women of reproductive age to receive a second dose of TT.

According to the MOH, current vaccination coverage rates for infants under 12 months in the Santiago District are:

OPV3	23.79%
DPT3	<b>22.59%</b>
Measles	<b>78.68%</b>
BCG	<b>36.77%</b>

The birth rate according to the MOH District is **29.24/1000**.

## 2. RELEVANCE TO CHILD SURVIVAL PROBLEMS

The principal causes of infant mortality and morbidity in the impact area of Solola are diarrhea, malnutrition, and pneumonia. Of these, infantile diarrhea and pneumonia predominate, with malnutrition as a contributing factor.

The principal Child Survival activities and interventions are EPI, CDD, and maternal health care, in addition to clinic services offered by a small hospital in Santiago Atitlan called "Clinica Santiaguito". While pneumonia control was originally included among the project interventions, it was deferred in the revised Detailed Implementation Plan (December 1992) in order to allow the project to

concentrate limited resources more effectively in response to the low immunization coverage rates.

Stability of local staff, who are assigned by intervention, has affected implementation. Staff assigned to the expanded program of immunizations have experienced the least turnover, enabling continuous follow-up of programmed activities. This was demonstrated during the evaluation by the work achieved in EPI relative to the other interventions. The CDD efforts have not been as consistent, owing to turnover of the initial program managers. Maternal Health has also experienced some instability of staffing.

### 3. **EFFECTIVENESS**

#### The Expanded Program of Immunizations

According to the DIP, a child at high risk for immunization is any child who has not completed the entire schedule of vaccinations for his or her current age. In addition to conducting immunization campaigns with the MOH, project staff use house-to-house visits to enroll infants under 12 months into a registry system to allow identification and follow-up for defaulters. Although labor intensive, the system is effective to the extent that staff have completed enrollment. A difficulty is that once a child has reached its first birthday, it is no longer kept in the registry, however, the project is beginning to obtain information that now allows staff to address incomplete schedules in individual children.

#### Control of Diarrheal Disease

The establishment of the community oral rehydration centers has made packets of oral rehydration solution (ORS) more accessible in the community, especially at night and other times when the clinic is closed. ORS packets are distributed free--with the outbreak of cholera, there has been an increase of adult users. However, the acceptability of ORS (suero) for use by infants and children is affected by several factors. Evidence elicited in the focus group discussions revealed that some mothers -- particularly the younger ones-- tend to seek help for their children with diarrhea first from the pharmacist, who sells them medicine, and from the physician or clinic only if the child does not respond. Many mothers report that their children do not like the taste of suero, so they tend to give home-available fluids. Many prepared atole, or cereal-based fluids also promoted by the project, but a considerable number gave their children herbal teas. There were no reported inhibitions to breastfeeding during episodes of diarrhea. These data support the baseline findings.

The project uses different volunteers to carry out the CDD activities, and tracks infants and children under three. It monitors episodes of diarrhea, distribution of ORS and tracks the number referrals in this group. High risk is defined as children between six and thirty-six months without a measles vaccine living in households without clean water and/or latrines. The messages promoted for CDD are excellent, and the project has developed innovative training materials for both the EPI and CDD interventions (please refer to Appendices for an example of EPI and CDD field training/reference guides).

The project also disseminates CDD and EPI messages via radio media. PC1 should consider intensifying this effort, particularly with CDD. The local elementary school currently provides limited health and hygiene education. PC1 might also consider involving the local school in a hygiene



education program, similar to PCI's Nino-a-Nino program in Nicaragua, which disseminates messages via student peer educators.

### Maternal Health Care

PC1 has focussed on training midwives in safe birthing techniques, to promote prenatal care and to identify and refer pregnant women at high-risk to the clinic or MOH health post. In focus group discussions, the evaluation team found that the quality of maternal care provided by both traditional and medical service providers is affected by the need to strengthen the links between these two provider groups. Midwives do not consistently refer their clients to the Clinica or MOH Health Post for prenatal care or intervention in high-risk situations. In some cases this seems to stem from an inadequate understanding of high-risk and what to do about it on the part of the midwives (e.g., the risk of post-partum hemorrhage increases in women with upwards of eight births, because they are told to push too soon).

In the majority of cases, however, the basic issue is a lack of respect and effective communication between two types of service providers. In this region, midwifery is a business. Midwives can earn as much or more than the average male laborer. Their clients are initially referred by the families of the pregnant woman, usually the mother or mother-in-law. Midwives are reluctant to refer their clients to the health center or Clinica because of a perception that this somehow reflects on their competence; thus they continue to advocate delivery in the home. Although it was not expressed in any of the focus groups discussions or interviews, there may also be a fear that they will lose clients to the medical providers. They are reluctant to provide information about contraception to their clients, although in focus group discussions with mothers the evaluation team discovered a real demand for this. Some of the senior midwives, through the PC1 training, have overcome this reluctance and achieved a better understanding of the advantages of prenatal care and intervention in high-risk situations, including the prevention of future pregnancies. Some reported that they refer their clients, but do not necessarily accompany them either for prenatal visits or at the time of delivery.

Although one senior midwife said that she would consider accompanying her clients if there were a dedicated prenatal clinic, the reception of midwives and their clients at the clinic also discourages referral. Even if a midwife refers and accompanies her client in labor to the clinic, she is not allowed to attend the birth, or to provide the traditional support (massage with oils) during labor. This discourages both the midwife and her client from delivery in the clinic, and creates a tendency for the midwives to seek medical intervention for their clients only when they are gravely ill. The frequently poor outcome discourages them from further referrals.

Project staff are aware of these problems. With complementary funding from a private foundation for a family planning effort, PC1 has developed an integrated strategy for a comprehensive maternal and reproductive health program that is worth mentioning here. Although the baseline research was only recently completed and the program is not yet fully operational, it should help make the clinic services more "user-friendly." The program expands the focus of current vertical family planning efforts in the region based on a recognition that a woman's reproductive health encompasses pregnancy, birth and lactation as well as control of her fertility, and that health messages and service provision needs to reflect this. The approach is to train midwives as well as community based-distributors in family planning, and to implement a cross-training between the midwives and the clinic staff to integrate appropriate traditional and medical service provision. The program will deliver

education to influential segments of the community such as men and older women, and for young single men and women.

Overall, when accomplishments are strictly compared with objectives for this period, the CS VII project is behind schedule. The reasons for this include the instability of mid-level project staff, the lack of effective coordination with the MOH at local and regional levels, insufficient staff participation in early target setting, and the delay associated with revising the DIP.

The baseline study was carried out effectively with assistance from the Johns Hopkins Child Survival Support Group, and this represented an important training opportunity for the staff. Unfortunately these efforts were not matched in the initial draft of the DIP, which was a rushed and somewhat incomplete document, failing to fully involve **Solola** project staff. Owing to technical staff turnover at PC1 headquarters, there was insufficient Child Survival technical input. The process of revising the DIP was fundamentally beneficial for staff cohesion and participation, and achieved a better approximation of local community realities. Nevertheless, it led to significant delays in field training and implementation.

#### **4. RELEVANCE TO DEVELOPMENT**

Families in this region face a poor diet for both economic and educational reasons. Corn and beans are the principal staple crops. While many people in the over-crowded town of Santiago Atitlan are involved in small commerce and fishing, the basis of the local family economy remains tied to the cultivation of small holdings. **The** daily wage is under \$2; some families have increasingly sub-divided land but many are essentially landless poor with a very low income.

Economic hardship in the Lake region was exacerbated by political oppression. There were ten years of unmitigated violence in Santiago Atitlan and surrounding communities from 1980-90, as the army and security forces sought to eliminate a perceived guerrilla threat. Groups larger than three were prohibited and travel was very hazardous. Men could not participate in groups, but women were not as restricted. The program activities PC1 conducted in the Child Survival project preceding the current expansion effort, were carried out with women on a cautious individual basis.

The massacre of community residents on December 2, 1990, by the soldiers at the Santiago military base led to the crystallization of anti-military resistance in the town and a move by the national government to de-militarize. This even was instrumental to the suspension of U.S. military assistance to Guatemala later that month.

A local witness to the events reported:

Officers, out of uniform, were drinking all day in the pueblo. They were asked to leave a cantina at ten pm or so. They tried to break into a merchant's house to presumably sexually assault his daughter. The man cried for help. The neighbors responded to his pleas and came to the family's aid.

In a brief melee, a boy was wounded in the arm by a pistol fired by one of the officers. The growing crowd of angry neighbors dragged

the officers to the police station and demanded their arrest, at the same time waking up most of the inhabitants of the village. The pistol shots and other noise got the attention of soldiers from the base. They arrived, threatening the police with their machine guns and took the officers back to the base.

A large group of people met in the plaza in front of the Catholic Church after ringing the church bells. Many people feared that once again the town priest had been assassinated, as had occurred a few years before. The out-going mayor and the incumbent were pushed in front of an angry crowd of about four thousand in an impromptu demonstration march to the base.

There was a full moon and it was about midnight when the white flag and flashlight-bearing crowd arrived at the base. After asking for an opportunity to present grievances and demands, the mayors were told to quiet the noisy crowd. One of the military officers fired his pistol into the air. The young recruits took it as a signal and opened fire on the crowd of unarmed civilians with their automatic weapons.

Thirteen were killed, the youngest a child of nine, and twenty were wounded. The incident led to the army being expelled from Santiago Atitlan within two weeks by then-President Vinicio Cerezos, following an investigation by the National Human Rights Ombudsman, Ramiro de Leon Carpio, currently President.

The incident was cited that same month when the US Congress discontinued military aid to the country. One officer and three recruits were tried by a military court and given prison sentences, the first time the military has found soldiers guilty of crimes against civilians in this country. Their jail terms were between six and sixteen years. The village has lived in relative peace for over two years now, with nightly civilian unarmed patrols of the village streets.

In the wake of these challenges, it became clear during the midterm evaluation that the PC1 project staff are working conscientiously towards self reliance, and with a wisdom that does not seek to confront directly the cultural restraints that exist. For example, and following the conclusions of an earlier study by **INCAP** on indigenous resistance to infant immunizations, PC1 sought to use the control of diarrheal disease as the key to gaining community confidence before beginning EPI activities.

In addition, by encouraging the organization of volunteer mothers as a community group rather than as a group deeply associated and identified with PCI, PC1 staff have worked to improve community ownership of the project. The PC1 approach is to identify community human resources not previously channelled or guided for progress and development.

Volunteer distributors of family planning methods receive training and they must come to the training without payment by the project. As distributors, they receive a small sum for the family planning methods they sell or promote. Under CDD, the community has taken on the Communal Oral Rehydration Unit (CORU) as an element of their own community rather than an external structure imposed or created by the PVO.

Community health committees in Cerro de Oro and Patanatic manage their own health posts, with the help of the neighboring municipalities. The maternal health mother volunteers particularly have shown a lot of self-reliance. On a number of occasions, mother volunteers and midwives have purchased supplies and materials in volume, and individual volunteers have paid for their materials.

## **5. DESIGN AND IMPLEMENTATION**

With the revised DIP, changes made in the risk groups have allowed the project to focus resources more effectively. Importantly, greater emphasis is now focussed on infants under one year than children under five for EPI. For the CDD intervention, children under three are targeted. However, these changes have led to some reporting weaknesses for the information system.

Field staff are now designated to one of three interventions, which enables more effective identification of individuals within the target groups. In addition, objectives are now more clearly linked to each intervention.

### **5.1 Design**

The revised DIP corrected some of the problems intrinsic to the proposal and first DIP, which caused the project to undertake ambitious geographic and programmatic expansion.

The revised DIP reduces the overall number of communities, as well as the size of the intended target population and the geographic area. However, the material and human resources available to the project are often exceedingly stretched even under the current arrangement. This is partly due to the retention of some communities that provide relatively few additional beneficiaries but require considerably greater effort to reach for service provision and follow-up. In addition, the revised DIP has only partially addressed the realistic needs of the urban cantons of Santiago Atitlan, where over 40% of the target population is concentrated.

To its credit, project management has been flexible in the face of these difficulties. The revised DIP has helped the PVO line staff understand as never before the measurable objectives of outputs and outcomes. The EPI intervention is thus more focused and reaching an expanded target population. The CDD intervention is achieving greater success at outreach, with simplified and coherent messages.

Prior to this CS project, PC1 staff had to focus efforts in only one indigenous language, Tz'utujil. Currently the residents in some of the expansion communities have increased this burden to include two other languages, Kachiquel and Quiche.

An important issue affecting project design has been the historic resistance of indigenous families to vaccinate. Mothers offer many reasons for this, including the age of the baby, the tenderness of the

skin, and the danger to the baby's health. Some suspect that the injections are a method of sterilization. These beliefs and resistance were cited by **INCAP** in a study of knowledge, attitudes, and practices in Solola. Historically **Solola** has had among the lowest EPI coverage figures of all of Guatemala's departments, and certainly among the country's highest infant mortality rate. Rather than challenge these beliefs and risk alienating the mothers, PC1 staff chose to start work in CDD, followed by Maternal Care-Reproductive Health, and EPI.

The revised DIP focusses on these three objectives, and leaves other interventions--growth monitoring and pneumonia control--until sufficient progress has been demonstrated particularly with EPI.

The evaluation team found that insufficient time exists for the project to meet the objectives even in the revised DIP, and suggests the following modifications. The team further suggests PC1 consider a twelve-month no-cost extension to allow sufficient time to meet them.

### **EPI Objectives**

1. To increase the vaccination coverage for children 0-11 months with nine doses of vaccines, from 24% to 60% by 1993, and 80% by 1994. <<**1993:30% 1994:45% 1995: 60% >>>**
2. To increase the current access rate of vaccination services for children from 0-11 months from 40% to 75% by 1993, and 88% by 1994.
3. To reduce the current "drop-out" rate of vaccination services for children from 0-11 months from 38% to 20% by 1993, and 10% by 1994.
4. To increase the vaccination coverage for pregnant women <15-44> years old with five **TT** doses from 23% to 30% by 1993, and 45% by 1994.
5. To increase mothers' knowledge regarding measles and **TT** vaccination from 10% and 25% to 50% by 1994. <<**1994:60% 1995:80%>>**

### **CDD Objectives**

1. To increase the number of episodes treated with ORT in children under three years of age at the community level, from 19% to 40% in 1994. <<**1993: 30% 1994:60%>>**
2. To increase the number of mothers that:
  - recognize signs of dehydration, from 23% to 50%; <<**1993:50% 1994: 80%>>>**
  - make proper use of food during and after the diarrhea episode, from **50% to 75%<<1993: 55% 1994:75%;**
  - seek advice from the Oral Rehydration Units (**ORUs**), from 50% to **75% <<1993: 60% 1994:80% >>>**;

### **Care of Mother Objectives**

1. To increase attendance of high risk pregnancies to the Women's Clinic and MOH services from 27% to 95% in 1993, and 95% in 1994.
2. To increase the number of women in reproductive high risk who use contraceptive methods, from 2% to 20% in 1993, and 40% in 1994.

3. To increase the number of women using contraceptive methods, from 7% to 22% in 1993, and 45% in 1994. <<1993: 10% to 1994:20% to 1995:30%>>

## 5.2 Management and Use of Data

A comprehensive baseline survey was conducted by the project in early 1992, roughly six months from the project's commencement. The survey was designed and carried out with technical assistance provided by the PVO Support Program at Johns Hopkins University. The project managers feel fully prepared to carry out the standardized survey for the project's final evaluation without further external technical assistance.

In spite of this, project managers do not have ready access or familiarity with the questionnaire formats and baseline data. The evaluation team noted the relative unavailability of data and some difficulties by key managers in interpreting the presentation of data. However, some additional practice with the materials and the use of programs like Epi-Info will probably increase confidence in the referral to data for decision-making.

The project is using pictorial methods to gather useful and simple service information, without running the risk of collecting an excessive amount of unneeded data for project management. This permits non-literate people to participate fully in the information gathering process of the interventions, which is an essential part of the project design. These materials were developed with the assistance of a local artist, and were tested and validated before use. The materials are innovative and helpful to the project middle managers. The baseline study was also shared with each community in a pictorial format.

In the case of some interventions, the indicators need some refinement and correction. The methods for identifying and reporting high risk pregnancies and deliveries are being re-evaluated with information shared by PCI's project in Papua New Guinea, and will likely be adjusted during the first months of the third project year.

As the project includes both urban and rural sectors, there are significant differences to be faced in terms of what is possible between city and countryside. This is particularly true for the EPI and CDD interventions. Currently the project does not divide urban Santiago information by the five cantons and report back the gathered data to canton structures, such as the Canton Committees. Opportunities exist to build on the canton structure for self-reliance and full participation, particularly once all volunteer mothers and participants trained in Santiago are reporting consistently. This will necessitate the placement of additional supervisor support in the urban area. Currently urban Santiago is covered by only one supervisor per intervention. The size of the population, and the need to deepen and consolidate coverage in the urban area, clearly point to the addition or relocation of two new urban supervisors.

Changes in management staff in the field as well as headquarters have affected the consistency of information flow for decision making. The field staff would benefit from more frequent information sharing with a formalized means for staff feedback. In addition, there are needs for automating the compilation and presentation of data.

During the first project year, the Health Information System did not work fully, because extensive time was placed in training the staff and working with the communities to develop the groups. The system is only now beginning to work. It is stronger in EPI and CDD, and much weaker in maternal health.

### 5.3 **Community Education and Social Promotion**

As one key leader interviewed for this evaluation observed, “The private doctors here only know how to hand you a bill, with some prescriptions, and that’s it. They don’t explain anything to us. If there were no services [from PCI] anymore, I’d get upset.”

The balance in the project between social mobilization and service provision has consistently favored the former during the first 24 months. This is largely due to the tremendous cultural constraints and obstacles faced in Solola. The educational materials are developed and designed by local artists and then validated by the communities before use. In addition, after a six month pause, radio education work is being re-developed now.

This balance is likely to shift more towards service provision each month as the project matures, though it seems doubtful that service provision will ever be more than 60-70% of the project focus. PC1 staff have developed excellent educational materials, which have been shared with other organizations in Guatemala. These efforts in information, education and communication (IEC) are simple but sophisticated; in the design of educational materials, the elaboration of new messages and the testing for understanding and impact, the project has made creative use of focus discussion groups. The PVO seeks consistency through the feedback provided to middle managers from supervisors and community personnel. There is a great deal of steady in-service training.

At this point, PC1 is the only agency actively making use of information, education, and communication (IEC) strategies in Solola. The printed materials, once validated, use drawings appropriate for a non-literate audience, and reflect the indigenous population. Only trained community members receive printed educational material. This may have advantages as well as disadvantages. On the one hand, the project is clearly acting to conserve resources and avoid meaningless mass printing and distributions. On the other hand, it was unclear to this team if better results would have been attained in the focus group discussions had a less selective deployment and use of educational materials taken place. The Final Evaluation should probably review this factor in a conclusive assessment of learning under the project.

The inroads in community resistance to vaccines achieved to date are impressive. The demand for vaccinations created by community promotion has outpaced the provision of vaccinations. In CDD, the benefits of oral rehydration services are not yet fully established, particularly in urban Santiago, where pharmacists still sell antibiotics as the preferred treatment for diarrhea.

The project would benefit from greater institutional flexibility in order to respond to challenges such as the cholera epidemic, which has severely affected some communities and left others largely unscathed. Paradoxically, this flexibility needs to come from a more confident use of program planning. Currently, staff have chosen to focus on the specific objectives of the DIP to their merit, but without the planning overlay that would allow management to feel the freedom to chart small detours around developing obstacles. In the case of cholera, this planning flexibility would have a

direct impact on the social promotion dilemma that a number of project communities have questioned the emphasis on infantile diarrheas, when the clearly perceived problem they face is severe adult morbidity from cholera.

#### **5.4 Human Resources for Child Survival**

PC1 employs 33 staff in its health programs in Solola. Of these, 30 are designated to the Child Survival project. Three staff are designated to PCI's complementary reproductive health program, funded by a private foundation. At the time of this writing, the PCI Country Director and administrative assistant are located in Guatemala City.

In April, 1993, PC1 determined the need to strengthen technical support to both the Child Survival and reproductive health programs in Solola. In June, PC1 hired Ms. Deborah Bickel, MPH, to serve as technical advisor to the project. Subsequently, in order to concentrate resources on achieving the objectives for these two programs, it became evident that PC1 would need to close the Guatemala City office. Mr. John Kepner, who has successfully served as PCI's country director in Guatemala for two years, will be completing his assignment there as of October 27. PC1 will continue to be represented in Guatemala City by part-time consultant, Ms. Jayne Lyons.

Ms. Bickel, although a recent arrival, has developed the sort of staff relationships that should permit substantial technical and managerial enhancement of project implementation, particularly when linked to a reorganization of the local staff management team recommended by this evaluation. The local project staff will be in a better position to develop close counterpart links with local and regional MOH managers as a result of the reorganization.

Subsequent to the completion of the field work for this evaluation, PCI's local project director, Dra. Angelica Bixcul, received and accepted an invitation to work for the newly reorganized Ministry of Health. The invitation was a recognition of Dra. Bixcul's achievements in developing the community outreach for PCI's Child Survival program in Santiago Atitlan and her reputation as an excellent trainer. Her scope of work for the MOH includes developing collaborative relationships between the MOH and local NGOs. She will be based in Santiago. Meanwhile, Dra. Bixcul is assisting PC1 in the reorganization of the local staff. Having Dra. Bixcul in the MOH provides PC1 an ideal opportunity to improve coordination and strengthen its institutional relationship with the MOH.

Three senior staff will continue program management. Dra. Yadira Villasenor de Cross, PCI/Guatemala technical officer, will serve as counterpart to Ms. Bickel. Ms. Leticia Toz (RN) and Dr. Francisco Menz Puac will direct the project. They have formed a management team of the coordinators of each intervention--EPI, CDD and maternal care, and the clinic administrator. The position of permanent clinic administrator is an addition recommended by the evaluation team. PC1 had relied on physicians assigned to the clinic on a rotating basis for this function, with the result that there were weaknesses in the day-to-day operations and procurement. (Please refer to the new organization chart in the Appendices.)

Nearly all senior and mid-level managers in this program have extensive experience and training in maternal and child health interventions. PC1 enjoys a national reputation for training and keeping experienced community health workers. At conferences and workshops targeting community health programs, PC1 staff are repeatedly recognized as trainers working effectively with a sub-literate population and fluent in a regional dialect.



Coinciding with PCI's decision to place an expatriate technical advisor at the field site, was the necessity for the organization to reevaluate the clinic operations to address the sustainability of service provision. Evidence and opinion solicited by the evaluation team led the team to recommend that PC1 consider a dedicated maternal and child clinic, rather than continuing to offer comprehensive services, and that clinic operations be moved to a more convenient location. PC1 project management chose to act on the recommendation immediately, and the community has formed a Community Health Council to assist in the effort. The council is considering several options for continuing emergency and other routine services apart from the maternal and child activities. Responsibility for some service provision will likely transfer to the MOH, which is also represented on the Council. The support from the community was immediate and overwhelming and was the most surprising and gratifying side-effect of the evaluation. This issue is discussed in depth in the section on sustainability.

PC1 therefore plans to continue provision of limited maternal and child services from a more convenient location, and will discontinue operations at Clinica Santiaguito sometime this fall. This will necessarily result in a reduction in force of some clinic staff that are not dedicated to Child Survival activities, or, at the very least, their salaries will be paid from other sources. This streamlining of the clinic operations should allow the project to focus more efficiently on achieving its Child Survival objectives.

It became clear to the evaluators that the heart of the PC1 project is the network of community volunteers. Clearly cultivated and strengthened by the long term institutional presence, the midwives and community health volunteers provide deep roots to the PC1 effort. PC1 maintains an active reach with 352 volunteers, nearly three times the original size of the projected group. The volunteers are designated to one of the three interventions. The current "drop-out" rate estimated for volunteers, leaders, and **TBA**s is about 1%. This unusually low rate is due primarily to the close relationship and solid relations between the communities of the area and PCI, as well as the long-term familiarity with the PVO gained after a 20-year old investment in **Solola** by PCI. Specific and individual incentives are not provided to the community volunteers. The desertion rate in similar projects in Guatemala and elsewhere in Latin America has been historically much higher than PCI's achievement.

## 5.5 **Supplies and Materials for Local Staff**

Educational materials and other supplies are efficiently distributed to local staff. They appear to be valued and frequently employed in their duties. Focus group discussions with midwives routinely indicate which supplies they lack, and project management considers itself well-informed to these requirements.

Pharmaceutical procurement is a weak link in the project's logistic requirements, owing in part to the fact that clinic administration was not the responsibility of a permanent local staff member, but a rotating physician. PC1 has remedied this in its reorganization of staff. While drug and medication distribution are not a central part of the project's preventive strategies, **they are** important to the referral centers the project depends on, including the Clinica Santiaguito, the base for all PHC activity by PC1 in **Solola**.

The procedures for procurement are inadequate, given that essential medications are frequently wanting in the referral centers. PC1 staff in **Solola** have complained about lengthy delays in pharmaceutical procurement from laboratories in Guatemala City. Although the pharmacy presently

recovers the costs of most drugs, the project lacks an efficient system to prioritize and procure essential medicines. This obviously compromises the quality of service and undermines community outreach activities. PC1 hopes to correct this and improve cost recovery by assigning a permanent staff member as clinic administrator with responsibility for procurement.

## **5.6 Quality**

In CDD and EPI, the local project staff are adequately equipped with the technical knowledge and skills they require to do their jobs.

The staff was, in general terms, not well prepared or trained in how to gain entry to mothers and families in the Tz'utujil culture, despite many being from the local indigenous population. This perceived problem from the staff themselves may reflect an awareness of the difficulty in knowing how to adopt certain analytical and interpretive perspectives, and a creative detachment, in community development when enmeshed in the very same milieu. The Maternal Health program manager appears to have had less skills in this, though the evidence is only circumstantial.

Much of the PC1 staff are indigenous, but in some cases belonging to different language groups. They have been required to learn Tz'utujil on the job. In two cases, the evaluation team questioned the qualifications and credibility of staff hired to work in the maternal and reproductive health program. One, an unmarried woman without children was hired to promote family planning to women, and another, a man with a background in accounting was hired to conduct men's reproductive health education sessions.

## **5.7 Supervision and Monitoring**

Prior to the current reorganization, too many staff members reported directly to the project director. Changes in structure and job descriptions highlighted during this midterm evaluation are intended to resolve this problem.

In the new structure, coordinators for each intervention serve as members of a management team which include the project directors and technical advisor. Coordinators for each intervention presently oversee community supervisors, whom they may accompany directly in the field, occasionally arranging surprise visits, often providing direct hands-on support to service delivery, as in EPI. This arrangement has worked less well in the CDD and MC intervention components, and supervision has been much weaker.

Annual performance evaluations have not been carried out at any level among the staff, nor have periodic self evaluations been attempted beyond an initial effort two years ago. Job performance formats have not been updated nor used much in supervision and monitoring since three years ago.

## **5.8 Use of Central Funding**

PC1 headquarters has provided significant on-site support: program officer Rich Covington, **MPLA**, assisted project staff with the first annual CS report in September, 1992; program director Barbie Rasmussen, RN, assisted with the revision of the DIP in November, 1992, and provided headquarters representation for this evaluation. In March, 1993, PC1 technical officer Kathleen Merchant, PhD, visited Guatemala to provide technical guidance on the development of an integrated maternal and

reproductive health strategy. In April, 1993, Mr. John Kepner visited PC1 headquarters for an in-depth program review, out of which the decision was made to hire a technical advisor for the program who would be based at the field site. Typically, PC1 headquarters staff make one or two trips a year for supervision and administrative and technical support; in the last twelve months, Guatemala has received more than the average number of visits from headquarters staff.

The provision of headquarters support for administrative monitoring and technical support for the CS VII project in Guatemala exceeds the level PC1 routinely provides field programs. In Guatemala, this has been justified because of the need for increased technical support to field staff.

## 5.9 **PVO's Use of Technical Support**

PC1 has made extensive use of external technical assistance since project implementation began. Dr. Marcello Castrillo from the Child Survival Support Program at Johns Hopkins provided technical assistance for the baseline study. Dr. Castrillo trained staff how to conduct the survey, which they now feel confident of repeating for the final evaluation. Key staff from PCI's CS VII project in Nicaragua also participated in the training and implementation of the baseline survey in a very positive exchange.

When the first DIP was rated unacceptable (by both **USAID** and PC1 senior managers), PC1 engaged consultant Victor Lara, MD, MPH, to assist staff to revise the DIP. Dr. **Lara** secured the participation of all key personnel in a process which consequently yielded a plan that staff understand and have been able to implement themselves. Some problems remained, however, because the revised plan assumed a greater potential for MOH participation than actually existed, and some of the objectives remain high for a three year project. In addition, the revised DIP did not address the problem of sustaining clinic activities over the long term.

PCI/Guatemala's technical officer, Dra. Yadira Villaseñor de Cross, received six weeks of training at the Western Consortium for Health Professions in a family planning workshop. The training was sponsored by a private foundation which funds PCI's complementary reproductive health project in Solola. Project staff also attend local workshops and seminars on relevant topics.

In general, project managers feel that their technical needs for the child survival interventions are being met, with the exception of an expressed need for technical assistance with the health information system, especially with the selection of appropriate indicators for monitoring actual against target. Ms. Bickel should be able to assist staff in ways to make practical use of information gained in focus group discussions, since currently staff lack the ability to use these data for planning and decision-making.

As the community progresses in its efforts to create a self-reliant health care system, project staff and the Community Health Council would benefit from technical assistance with health care financing schemes. Support for this will likely depend on the interest of the target communities, the local **USAID** mission and central **USAID** agencies, and other donor, sub-grant or contract possibilities, including the new Initiatives Project, and the Health Financing & Sustainability (HFS) Project operated by Abt Associates.

## 5.10 **Assessment of Counterpart Relationships**

The chief counterpart organizations to the project are the Ministry of Health (MOH), APROFAM, and San Carlos University. Collaboration with the MOH has been hampered by an historical community perception of alliance between the MOH and military (in Santiago Atitlan, at least), and subsequent distrust of the MOH; and a conflict of priorities between PCI, in its focus on community-based programming in PHC and disease prevention, and the MOH, with its emphasis on medical service provision. Until now, these factors have precluded development of a coherent relationship between PCI and the MOH, beyond collaboration for specific events, such as the immunization campaigns. The instability of the MOH in the wake of political change is a secondary factor, and although PCI generally considers this a reality of doing business with the MOH, rather than a constraint, in Guatemala this . Institutionally, PCI is committed to working with Ministries of Health whenever possible, and has demonstrated this in its projects in Bolivia and Indonesia.

Recent changes in the MOH will likely result in an environment that is more open to **PVOs**. The new Minister of Health is the former Country Director for the U.S.-based International Eye Foundation (which also implements a CS VII project in Guatemala). And **PCI's** former project director Dra. Angelica Bixcul is moving to an MOH position in Santiago to develop community outreach programs for the MOH through collaboration with **NGOs** (a scope of work she proposed). PCI/Guatemala staff feel that there is now an excellent opportunity to work effectively with the MOH.

The MOH provides PC1 staff with vaccines, syringes, and thermoses, generally without difficulty. It also provides aspirin, cotton, health charts, and forms. At times there are problems if the person in charge of the Health Center Cold Chain is not there. There are no permanent arrangements to provide PC1 with vaccine on demand. In the past, PC1 made a monthly request for the vaccine required, though lately this requirement seems to have been dropped. There seem to be no problems in the supply of vaccine to the District center in Santiago. PC1 also coordinates with the District Center in Panajachel and in San Pedro for the regions of San Juan and Patanatic respectively.

UNICEF officials coordinate provision of ORS and other supplies it provides with the MOH. Dr. Bixcul has inquired if PC1 could purchase supplies from UNICEF, but the project has not pursued this, since it could conflict with MOH norms, which prohibit the sale of ORS. UNICEF on the other hand is generally willing to sell ORS to the **NGOs**. The MOH gave PC1 an initial lot of 2,000 ORS packets, and based on reported use rates, PC1 can receive additional lots of 2,000. 4,000 have been given to date. PC1 is able to buy medications cheaply from a health association ACECSA, located in Chimaltenango.

PC1 receives substantial support for its activities in **Solola** from a collaboration with San Carlos University. For eight months of the year, PC1 hosts a student dentist, or EPS. In return, the University has provided dental equipment, dental service, the training of PC1 staff, and important supplies. This arrangement has functioned well for over a decade. In the past, the project also received medical interns.

PC1 has worked with APROFAM, a Guatemalan family planning organization, since 1986. APROFAM has trained PC1 staff on family planning methods, distribution and management. Where PC1 is working, APROFAM does not work. Project staff meet periodically, usually monthly, with the training and distribution chiefs of APROFAM.

In Santiago, **Gallo Beer** has donated cases of soft drinks to PCI, which are used as an incentive in the community health program. This is a tax-deductible contribution for the company.

The Catholic Mission has provided the use of the clinic facilities and some equipment in Santiago, in addition to a satellite facility used for training and the doctors' residence.

#### 5.11 **Referral Relationships**

Referral relationships link the Community and the Clinica Santiaguito, and the Clinica and the MOH Regional Hospital in **Solola**, the department capital. Each of these two relationships is considered separately.

Community referral centers on a paper coupon system deployed for referrals and counter-referrals, linking community health workers with the professional medical and nursing staff in the PCI reference hospital. The coupon system has worked haphazardly in recent years, particularly with cholera admissions and treatment. A differential price system was established as an incentive to comply with referral: patients referred to the Clinica by a CHW were charged a considerably lower fee at the clinic than walk-ins. Staff report that the cholera epidemic has undermined this system because of the urgency in related admissions. In the last year, most admissions at the Clinica were linked to cholera. A separate cholera unit was established at the Clinica to minimize exposure.

A similar system has been put in place for the maternal health component, in which midwives are actively encouraged to bring their clients to deliver at the Clinica. The referral system is effective only with midwives with the strongest reputations and the least to fear from association with doctors. This has been difficult to implement broadly, because local custom still favors delivery in the home.

The Clinica does not perform cesarian sections or procedures requiring anesthesia. Women in high-risk categories requiring institutional care for deliveries are often referred to the MOH regional hospital in Solola. Transportation in emergencies is provided by the local bomberos (fire department). Don Carlos Chenen, the captain of the fire department, reports that if a woman needs transportation during labor and has not contracted a midwife, his crew will take her to the Clinica. If the doctor at the Clinica refers a woman with complications to Solola, the bomberos will make the two and one-half hour drive. They have been trained to do deliveries, but do not have adequate equipment for this. Because the drive takes so long, the bomberos often deliver the woman themselves on the road. Sometimes a midwife will accompany the woman, or the doctor will send a nurse, but this is rare. (Editor note: PCI reacted immediately to this information by developing a training course for the bomberos which is underway to improve their skills in emergency deliveries; stabilizing patients for transport; and basic trauma care. As part of their training, the bomberos have since observed complicated deliveries at the **Solola** hospital.)

A significant problem with the referral system is that the quality of service provision at the Clinica is widely perceived to have declined over the last four years. This is reflected by reduced use rates at the clinic and general disappointment with the service provision in the community at large.

As PCI proceeds with the transition of the clinic, it needs to develop a formal referral mechanism with the **Solola** Hospital. From March to June of this year, **PCI/Guatemala's** technical officer, Dra.

Yadira Cross, worked with the **Solola** health authorities to establish common norms in managing high risk births. This effort will have to be deepened and formalized.

A separate referral system with APROFAM exists for sterilizations in their center in Solola.

#### 5.12 **PVO/NGO Networking**

A list of inter-agency networking is provided below. The links are often discussed elsewhere, and vary according to their usefulness.

**Ministry of Public Health** The MOH supplies PCI with ORS, vaccines, and equipment for the immunization component. Planning of national immunization campaigns occurs between the local level MOH and PCI.

**CARE** Workshop on baseline studies in family planning was hosted by CARE, and included presentations by Dr. Angelica Bixcul, the **PCI** project director.

**Other USAID supported PVOs:** A workshop on sustainability provided clear lessons on the quality of diarrheal education given by CARE, and heartened **PCI** staff by the comparison with their program, which compared favorably with the CARE approach.

**ASECESA (Association of Community Services)** PCI is a member of this organization, which one of the partner programs. Exchange of expertise, knowledge, ideas and resources from community and institutional staff.

**INCAP** Technical assistance and personnel exchange in preliminary anthropological research projects and the revision of anthropological research projects undertaken by PCI.

**APROFAM** Trained clinic staff in IUD insertion, training for **PCI's** trainers, and the procurement of contraceptive methods at community level prices.

**SHARE** Community based program for growth monitoring. This program's personnel was trained by PCI in Child Survival components and the counterpart trained personnel in connection with care and storage of supplementary food.

**HKI PRO VITAMIN "A" UNIT** **PCI** contributed field research and data collection to a pilot project for Vitamin "A".

**AESCULAPIUS** Technical assistance in the elaboration of educational materials and improvement in the information system.

**PATRONATO PRO NUTRICION INFANTIL /Child Nutrition Foundation1** Provided technical assistance in production of **Lorena** stoves with appropriate technology.

**CDRO** Exchange of experiences in connection with the organization of community groups in health development fields. Visits to program sites to adapt some techniques they have applied to **PCI's** programs.

VIVAMOS MEJOR (Let's Live Better) Exchange of experiences in the organization of volunteer groups.

### 5.13 **Budget Management**

Budget control is located at PC1 headquarters, which disburses funds for this project in response to monthly requests for cash from the field office. The field office reports expenditures monthly by cost center, with the requisite documentation, to headquarters. **PCI/San Diego** then issues monthly income and expense statements which are shared with the field office. PC1 conducts an annual audit. In 1992, Coopers and Lybrand, Inc., found PC1 in full compliance with **USAID's** A-133 requirements and issued an unqualified opinion.

A review of pipeline expenditures to date reveals that the project has spent \$654,779, of a total agreement budget of \$960,330. Of the total spent to date, **A.I.D.'s** portion is \$451,267. At this rate, **PCI** will likely expend the remaining funds by the end of the project. The organizational changes the project is making with the closure of the country office, and a reduction in force of clinic staff, plus the changes contemplated to project operations in Solola, should improve efficiency and allow PC1 to make optimal use of remaining funds. Still, if PC1 contemplates a one-year, no-cost extension to give it time to achieve objectives, the project will require subsidy by the PVO beyond that available under the cooperative agreement.

## 6. SUSTAINABILITY

“We can say this because we are mothers.” Quotations from a mother volunteer who promotes vaccination, best illustrates the progress PC1 has made toward sustainability by delivering health messages through a network of credible health workers, resulting in understanding of the benefits and a demand for services in the community **itself**:

“We notice that the vaccines often cause a fever, so we reassure mothers ahead of time, and point out our own vaccinated children as evidence that the vaccine does no long-term harm. When the mothers say, ‘Don’t bring that vaccine near me. It kills children.’ I say, ‘Look- I am a mother and I have vaccinated my children and they are all healthy.’ We can say this because we are mothers.”

Another mother volunteer, when asked if the measles epidemic had affected the community, says,

“Gracias a dios, we don’t have problems with measles here.” In a moment she adds, “It is not just the good grace of God, but because we have been vaccinating the children.”

**PCI** has made slow but real gains towards creating an appreciation for child survival activities. However, as staff have seen, people are unwilling to pay for these types of preventive services. The ideal would be to transfer the capacity for service delivery to the MOH. Clearly certain interventions will always require the MOH involvement. This is particularly true of EPI, and perhaps to some degree CDD. The project intervention coordinators will have to take advantage of recent MOH measures which have led to full staffing of key district centers, and look to some incentives to sustain

interest, dedication, and commitment of the public sector staff. With the new MOH emphasis on provision of community-based services, there may be new opportunities for this, however, the process will certainly take longer than a three-year Child Survival project.

During the long military occupation, serving as a covert volunteer for the project may have been one of the only mechanisms for proactive community service (similar to serving in the resistance) in this remarkable community. This may be a factor in PCI's uncommonly low attrition rate for both staff and volunteers. As the economy begins to diversify in response to the new social and political freedom, PCI will need to explore other types of incentives to **service**. A unity of purpose has come to permeate much of what is going on in Santiago Atitlan. One effect of the massacre has been, in the words of the town's new mayor, "to unite efforts and cause the people to work together." This unity, if strengthened further by the project, may well be one of the most important untapped **resources** for ensuring responsible action by the community, in urban Santiago Atitlan at least.

For obvious reasons, it has not been possible until recently to involve the communities directly in planning or implementation of this Child Survival project's activities. Partly the challenge that is faced in this region now is one of priorities. Child survival is not usually high on the list of community problems. However, focus group meetings and interviews with key leaders demonstrate considerable good will towards the community health programs. The good will is not always informed; in some cases there is misunderstanding about what PCI is doing today due to the mix of interventions which characterized the first project year, and prior to this project.

Given these conditions, PCI plans to address institutional sustainability on two fronts. First, it plans to establish a Guatemala-based NGO of **Solola** project staff, a recommendation of this evaluation. Second, it is supporting the simultaneous community initiative to self-reliant health care. Taken singly, these are ambitious undertakings for any organization, and will require time and resources beyond the scope of this CS VII project. However, these two possibilities would have been unthinkable in this community only two years ago, and as one of the staff--who persevered with the project throughout the long military occupation-- remarked, "Flexibility is the most important characteristic for survival."

## 7. **RECURRENT COSTS AND COST RECOVERY MECHANISMS**

The central issue for recurrent costs in the **Solola** project has been the eventual status of Clinica Santiaguito, the small hospital and PHC reference center. Cost recovery in the clinic has averaged 35% over the last 18 months (please refer to a summary chart of Recovered Costs in the Appendices). The concerns about the clinic on the part of PCI's senior managers are both economic and programmatic. PCI's general focus in its international PHC programs is to support and strengthen service provision by local institutions, not undertake the service provision itself. **PCI** has been concerned that the Clinica Santiaguita over time has obtained a monopoly over health service provision, which may have compromised the limited MOH opportunity to develop a service provision capacity. Particularly in the new sociopolitical climate, it is now possible and desirable for a community the size of Santiago to develop a mix of service providers, including private (for-profit), public, and NGO. Diversity of this nature also supports and is reinforced by other democratization efforts. However, transition in an established public institution like the Clinica Santiaguito is bound to arouse controversy.



Juan Manuel Cabrera, a teacher at Santiago's Mateo Herrera Elementary School observed, "Historically, the Clinica was one of the best in the area, and specialists came to practice from all over. Now, the clinic has fallen, and perhaps the financing is the problem. But, you can't close the clinic. It's like closing the school." Most people observe that if the Clinica closes, people will have to go to **Solola** for treatment, because the MOH health post is so poorly equipped.

What is most positive about the questions of recurrent costs and cost recovery mechanism is the changing climate in the urban community of Santiago Atitlan. Meetings with community leaders and focus groups demonstrated time and again the willingness of most residents to end paternal subsidies, and find mechanisms in which the community could help PCI shoulder a significant part of the cost of running a reference PHC center.

The schedule for the evaluation included a meeting with a wide cross-section of community leaders from Santiago Atitlan, at which Dra. Bixcul presented the prospect that the Clinic would need to be reorganized in order to ensure essential services, and that the community faced several options for determining the services it wished to continue other than those associated with primary maternal and child health. Proposals to form committees and a community board were raised by those present. Following this meeting, the Community Health Council was formed, which has since met several times. Staff are fully aware that there are several existing models of health care financing schemes they will need to consider, and that this initiative will require external technical assistance, which they have already begun to investigate.

Staff have concluded that the maternal and reproductive health costs can be at least partially covered, as well as some CDD costs. Support for EPI is increasing in the communities, but it is difficult to imagine effective cost recovery of EPI without some level of subsidy.

Following a recommendation of this evaluation, **PCI** is therefore proceeding with a plan to divest itself of some service provision, while retaining services which support the Child Survival activities in a dedicated maternal and child clinic. Because the maternal and reproductive health strategy calls for provision of family planning services, **PCI** has located a central site for the new clinic that is not associated with the Catholic church.

In general, project staff have reduced costs to the extent possible with the existing operations, absorbing staff reductions and cutting training costs. Coordinators of the community interventions have encouraged CDD volunteers to invest in their own supplies for measuring to collaborate, and are buying their own stationery supplies for reporting. Most staff understand the need to cut costs and increase program efficiency.

## **8. RECOMMENDATIONS**

The overall findings and recommendations for **PCI/Solola** can be best grouped under three functional headings. These are the Management and Institutional Issues, the Clinica Santiaguito, and the interventions of the Community Health Program.

### **Management and Institutional Issues**

- The Clinic and Community Health Programs have been artificially and counter-intuitively divided.
- Collaboration between the MOH and PCI\Solola is inadequate and vulnerable on district and departmental levels.
- Participatory efforts to examine the current PC1 program, and define objectives in the DIP in late 1992, may raise expectations for greater management follow-up and responsiveness at every level in the PVO project.

### **Recommendations**

1. The staff has been restructured to form a “management team” of key senior staff.
2. MOH collaboration and relationships have been incorporated into the job descriptions of senior staff. While the Project Director is ultimately responsible for contacts at the political level, all members of the management team should maintain contact with intervention program managers at the technical level in both Guatemala and Solola.
3. **The** legal status and requirements for Guatemalan-based NGO status should be explored, and if appropriate, actively pursued by the project.
4. Management should open back-channels for informal discussion and feedback, along with target times for response to suggestions, in order to facilitate participation in decision-making and improve morale.

### **Clinica Santiaguito**

- The quality of service delivery has declined precipitously as a result of inadequate supervision, administration, and an ambivalence in institutional commitments.
- The Clinica Santiaguito does not currently provide adequate referral support for primary health care.
- Continued PC1 subsidy of comprehensive medical service provision is not justifiable financially or programmatically.
- Community resources exist which can support diversification in service provision.

### **Recommendations**

5. **PCI** should consider a dedicated maternal and child clinic, rather than continuing to offer comprehensive services, and should move operations to a **more** convenient location. The Clinica Santiaguito should be closed as of the most convenient date. **PCI** should consider a service mix including prenatal management and routine deliveries, family planning, well child care (including vaccinations), rehydration, and supporting laboratory.
6. **PCI** has designated a permanent staff member as clinic administrator, who is also a member of the management team.

7. Continue to work closely with the Community Health Council, providing and/or securing technical assistance as required, to assess demand, need, and sustainability strategies for primary care services in the future. The first order of business is to look at mechanisms for covering 24 hour after call and dental services.

### Community Health Interventions

- The urban PHC program in Santiago Atitlan has not been successfully consolidated to date because of inadequate allocation of material and human resources.
- The selection of expansion communities under CS VII has resulted in an inefficient distribution of material and human resources.
- Significant inroads have been made in ameliorating cultural barriers to the child survival interventions in many key communities. Notwithstanding, it seems unlikely that many of the objectives can be reached in the three year original design.

### Recommendations

8. Consolidate interventions by limiting activities in the most recent areas of expansion with low population, and those with less need for the interventions.
9. Move personnel resources into Santiago which is lagging behind the rural expansion areas, and create incentives for canton committee involvement.
10. Develop strong referral and support services for maternal care with midwife involvement, to complement their current training. As resources allow, expand outward from Santiago, once the urban zone is consolidated.

### 9. SUMMARY

The Midterm Evaluation Team for the **PCI\Solola** Child Survival VII Project includes one external consultant to PCI serving as Team Leader, as well as the Program Director from the Project Concern International headquarters in San Diego, California, and the newly contracted Technical Advisor, situated at the project center in Santiago Atitlan. The team was assisted during five days by a representative from the **Solola** Department branch of the Ministry of Health, Rdmulo Rivas. The expected observer from UNICEF was unable to participate.

The evaluation team met together in Guatemala City and Antigua Guatemala on Monday, August 2, 1993, travelling that day with the **PCI\Guatemala** Country Director to the project center. Substantial advance work in the preparation of draft interview formats and in the selection of key community leaders took place during the ten days immediately previous to the commencement of the evaluation, in addition to the recruitment of focus groups composed of volunteer community health workers and project beneficiaries. This advance work was carried out by the senior project staff and the Technical Advisor.

The first day consisted of review and revisions to the interview formats and schedules, and was followed by seven days of community visits, focus group discussions and key informant interviews, in

the rural expansion communities, periurban Santiago and urban Santiago sectors. In addition, one day was devoted for interviews of PC1 staff on an individual and group basis, two to three days for the compilation of service statistics, follow-up work and the review of findings, and one afternoon for a meeting with community leaders in Santiago to discuss the transition of the Clinic. Mr. Wind prepared a draft report in the field. Subsequently, Ms. Bickel and Ms. Rasmussen provided feedback to the report. The final version represents contributions primarily by Mr. Wind and Ms. Rasmussen. An unusual aspect of this report is that it reflects the rather dramatic changes in the project since the evaluation was completed, and which were necessary to include in order to provide a current picture for the donor.

The Midterm Evaluation Team found a highly gifted, motivated, and well-prepared group of health professionals and community educators committed to improving the health and well being of participating communities. The **PCISolola** group have faced and are overcoming tremendous barriers to effective implementation of the Child Survival interventions of EPI, CDD, and Maternal Care-Reproductive Health.

This evaluation did not attempt systematic measurement of impact. As the project teams persist and sustain the implementation of the current program plans, there is every reason to expect empirical and demonstrable change over time. The primary determinant will now be the perseverance of project managers in sustaining and providing helpful follow-up to **CHWs** and volunteers.

The total direct cost of the Midterm Evaluation is approximate lodging, transport, consultant fees, and PC1 salaries.	\$12,000, including airfare, food and
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