

CSSP



CHILD AND MATERNAL HEALTH IN THE DEPARTMENT OF TOTONICAPAN:
DELIVERING ESSENTIAL HEALTH SERVICES IN
THE **REMOTE** AND CULTURALLY-ISOLATED GUATEMALA HIGHLANDS
cs-VII
Grant # PDC-0500-G-00- 1064-00

FINAL EVALUATION

Submitted to

Agency for International Development
BHR/PVC/CSH
Washington, DC 20523

Submitted by



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January 1995

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**THE PEOPLETO-PEOPLE HEALTH FOUNDATION, INC.
PROJECT HOPE
MILLWOOD, VIRGINIA 22646
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January 11, 1995

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Too numerous to identify here, yet individually deserving of the team's heartfelt thanks for their graciousness in sharing their accomplishments, frustrations and future plans

SUMMARY

This is a report on the Final Evaluation of “Child and Maternal Health in the Department of **Totonicapán: Delivering Essential Health Services in the Remote and Culturally-Isolated Guatemalan Highlands**” project. This CS VII project, implemented by Project HOPE and the Ministry of Health, operated from September 1, 1991 through August 31, 1994 in the rural highlands of western Guatemala, in the Department of **Totonicapán**. The vast majority, **85%**, of the project’s participating mothers were non-literate.

Major accomplishments were documented in almost all components, and reflect changes in knowledge, coverage and practice related to the CS interventions. The combined efforts of the project staff, counterparts, volunteers and mothers achieved the Year 3 goals projected in the Detailed Implementation Plan (DIP) for almost all interventions, with the major exceptions of exclusive breastfeeding and family planning.

Highlights of the Evaluation include:

Expanded Programme on Immunization (EPI):

Complete coverage at baseline was only 29 %, and this excludes BCG. Results of the Final Evaluation Survey showed that complete coverage (without BCG) had increased to 53% and **almost** reached the Year 3 DIP goal of 60%.

Control of Diarrheal Diseases (CDD):

~~There was a great increase in the use of liquids to treat diarrhea episodes.~~ ^{o n i c} shortage of ORS packets, the project’s messages included other **options** for preventing dehydration, especially home-available fluids. Incaparina was promoted by the managers of the Community Oral Rehydration Units (**CORUs**) for maintaining caloric intake during diarrhea. The use of **fluids (ORS, homemade sugar-salt solution and other fluids)** during diarrhea practically doubled -- from 35.5% at **the baseline** to 69.3% at the end of the project.

On the other hand, two inappropriate actions for CDD, i.e., doing nothing or giving medicine (antidiarrhetics or antibiotics), did not change over the course of the project, despite the concomitant increase in giving correct fluids. It appeared easier to convince more mothers to **apply** a known behavior (giving fluids) from their normal practice (i.e., when the child was well to when s/he was sick) than to actually **stop** an on-going practice (giving inappropriate medicine) which they are told is negative.

Nutrition:

Overall, most breastfeeding practices in this population were very good at the beginning of the project and did not change during the three years. One nutrition indicator which did change dramatically relates to the introduction of solid foods to infants between 5 - 9 months of age. At the baseline, this rate was very low, 13.3%) and by the end of Year 3 it had increased over five fold to 67.1%. With regard to vitamin A, this project introduced the concern for vitamin

A intake and assisted the MOH with clear strategies to address those groups at-risk. The project was successful in increasing the children supplemented with one capsule from 2% to 43 %. Wealmesses in the EPI program hampered the ability to reach children with the necessary two doses per year. It is necessary to consider a child with only one capsule per year as vulnerable as a child without full immunization coverage.

Maternal Care:

The project introduced the concept of TBA peer supervisors, i.e., bilingual **TBAs** elected from among their peers to serve a training and supervisory role among the others. Given that many of the **TBAs** did not understand Spanish, the TBA peer supervisors played a critical link in communications between the project staff and the **TBAs**. The success of the **TBA** peer supervisors has caught the attention of Ministry of Health, which is interested in replicating this intervention in other areas of Guatemala. This project was very successful in increasing the awareness among women about the importance of pre-natal care. Evaluation results reflect considerable changes in behavior, i.e., at the baseline, 49.2 % of women reported having visited a traditional birth attendant (TBA) for pre-natal care, and this increased to 83.1% at the end of **Year 3**. The coverage rate of **TT2** increased from 6.4% to 24.4%. Although it is still low, the increase is quite important in this population which is quite suspicious of outsiders. As far as postpartum care, **TBAs** were trained in giving vitamin A capsules to post-partum women. Mothers **actually** began to demand the capsules and the coverage rate, which was nil at the beginning of the project, increased to 27.8% after three years.

Acute Lower Respiratory Infections (ALRI):

Despite the fact that the ALRI component was only implemented in Year 3, there are positive results in the key indicators: the percentage of mothers who reported “correct” behavior in seeking care for a child with ALRI increased almost sixfold, from 12.2% to 68.8%. These results reflect the mothers’ interest in acting on the information made available to them about **ALRIs**, the affordable, community-based option for treatment offered and the promotion of the CORUs by project staff, **TBAs** and village leaders.

Overall, this project was successful in meeting its objectives because it incorporated tested components from Project HOPE’s other CS experiences, e.g., the CORUs, and because it was willing to experiment with new strategies to address some of the well-known and very serious impediments that stood in the way of improving health services and practices in the target area. These strategies, some old and some new, included: developing the cadre of TBA peer supervisors, being responsible and accountable, addressing felt needs and making the effort to communicate in **K’iché**.

The Final Evaluation team worked in Guatemala from August 15-28, 1994, and was comprised of local and international Project HOPE staff, counterparts, a community representative, and an external evaluator.

ACRONYMS

ADRA	Adventist Development and Relief Agency
AID	Agency for International Development
ALRI	acute lower respiratory infection
AOP	Annual Operating Plan
APROFAM	Guatemalan Family Planning Agency
BCG	vaccine for tuberculosis
CDD	control of diarrheal disease
CEDRO	Committee Promoting the Development of the Western Region of Guatemala
CORU	community oral rehydration unit
c s	Child Survival
CSSP	Child Survival Support Program
DIP	Detailed Implementation Plan
DPT	vaccine for diphtheria, pertussis and tetanus
EPI	Expanded Programme on Immunization
GRT	<i>Grupo de Relaciones Transculturales</i> (Group for Transcultural Relations)
HAF	home-available fluid
HIS	health information system
KPC	knowledge, practice and coverage
MCH	maternal child health
MSP	<i>Ministério de Salud Publica</i> (Ministry of Public Health)
MT	Mid-Term

NGO	non-governmental organization
OPV	oral polio vaccine
ORS	oral rehydration salts
ORT	oral rehydration therapy
PVO	private voluntary organization
RHT	Rural Health Technician (<i>TSR - tecnico de salud rural</i>) graduate of a two-year health technical school
TBA	traditional birth attendant
TT	tetanus toxoid vaccine
WFA	women of fertile age

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PART I

BACKGROUND and METHODS

I. BACKGROUND

Starting in 1985, Project HOPE has implemented three Child Survival projects (CSI, CSIV and **CSVII**) in the Departments of San Marcos and Quetzaltenango in the highlands of western Guatemala. The focus of this evaluation is the CSVII project which was implemented in the neighboring Department of **Totonicapán** from September 1, 1991, through August 31, 1994 (See Map in Appendix 1).

The following descriptive data are taken from the Detailed Implementation Plan (DIP). The Department of Totonicapán has the highest percentage of indigenous population (97% are of Mayan descent) of the entire country and many of these citizens speak only **K'iché**, a Mayan language, or another related dialect. Totonicapán is predominantly rural and per capita annual income is approximately \$80. Income is derived from agricultural production (Chile, corn, coffee, broccoli and other cool weather crops), animal husbandry (sheep), cottage industries (textiles and handicrafts) and the seasonal labor needed for the coffee harvest in coastal areas. The majority of the population (85%) is non-literate and unemployment is 45%.

Totonicapán was chosen by the central and regional MSP as the site of this CS project because of high levels of mortality and infectious diseases in the maternal and child populations. The Department's infant mortality rate, 83.6 per 1000 live births, is the highest in Guatemala. Access to trained health care providers is low as well as the demand for preventive health **services**.

Project HOPE's Child Survival project was implemented in the four most populated health districts in the Department, including a total of 114 communities. These districts, and their total populations, are: Totonicapán, the departmental capital (**88,957**), Momostenango (**80,247**), Santa Maria Chiquimula (30,883) and Santa Lucia la Reforma (9,337). The project's target population includes 75,109 children under six and 41,893 women of fertile age. This target population is served by one departmental hospital (in the capital), four health centers (in the district capitals) and nine health posts (in larger villages).

The Department of Totonicapán and its neighboring Department of Quiché were the sites of extremely vicious fighting between government troops and guerillas which took place over a ten-year period throughout the 1980s. Guerilla activities continue to this day on a sporadic basis. One of the results of so much bloodshed and destruction in this area is the extreme distrust of the local population towards any person or any service offered by the government or associated with foreigners. Therefore, this characteristic creates a very difficult challenge for any organization which attempts to work with this population to effect improved health statistics.

II. METHODS

Data for the final evaluation was gathered in two main phases: through the CSSP Final Evaluation KPC Survey, which was implemented during the first half of August 1994 in the four

project districts of the Department of **Totonicapán** (see Appendix 1) and through the work of the evaluation team during the second half of the same month. The evaluation team worked in Guatemala from August 15-28, 1994 (see Appendix 2 for the Evaluation Schedule and List of Persons Interviewed). Members of the team are listed in the Acknowledgements section at the beginning of this report. The three Guest Members participated in the team on a part-time basis.

The following objectives for the Final Evaluation were developed by the **team** during the initial planning session:

1. To become familiar with the changes in health behavior which have occurred in the project's four districts and to document other achievements of the project.
2. To analyze to what extent certain activities are sustainable.
3. To identify successful strategies which can be applied to other projects.
4. To analyze and synthesize the successful field activities related to orientation and training.
5. To reach valid conclusions about lessons learned which can be applied to future interventions with the MSP, other **NGOs** and Project HOPE's own nutrition and MCH projects.
6. To satisfy the requirements of the donor (**USAID/Washington**) and to elaborate a concise final report according to the **USAID** Guidelines.
7. To become familiar with the degree to which the communities have accepted the HOPE field staff.
8. To become familiar with the counterpart's degree of participation at the departmental, district and community levels.
9. To increase the **MSP's** and collaborating **NGOs'** commitment to Child Survival through the process of the evaluation.
10. To share the results of the Final Evaluation Survey with the counterpart and the community.
11. To document the changes which have taken place in the project as a result of the recommendations from the Mid-Term Evaluation.
12. To identify which activities require more elaboration and follow-up for consideration in the development of new maternal and child health activities.

Sources of information which the team used for the evaluation are:

1. Field visits - Generally, each of the two sub-teams visited two different communities each day. The schedule was designed to include communities in each of the four participating districts of Totonicapan. The teams observed typical project activities being implemented by the project staff and conducted interviews with a variety of persons attending the event or working in that community.
2. Interviews - Interviews took place with mothers participating in the project, community health promoters, **TBA**s, community leaders, representatives of the Ministry of Health, schoolteachers, and representatives of other **NGOs, PVOs** and **USAID**.
3. Final Evaluation KPC Survey - Preliminary results from this survey were available to the evaluation team for integration into their observations, discussions and conclusions about the project.
4. Project staffs written comments - Each of the eight project field staff provided written responses to the questions included in the **USAID** Final Evaluation Guidelines.
5. Project Health Information System - This system includes the monthly activity reports and quarterly summaries of project activities.
6. **BHR/PVC** Required Project Documents - The project proposal, DIP, Annual Report (Year 1) and Mid-Term Evaluation were reviewed.

In addition to RHT Huinac, project staff participated in the evaluation by accompanying the team, introducing them to counterparts and communities, demonstrating their normal implementation of field activities, answering questions, helping to interpret information gathered, and providing written responses to the **USAID** Final Evaluation Guidelines for CS VII Projects.

For the majority of the days in the field, the team divided into two groups in order to visit a greater number of communities and interview a greater number of community members and counterparts. When field work was completed, team members were divided into three different groups in order to discuss their experiences. Project staff also supplied written responses to the AID Guidelines and this input was incorporated into the team's body of data. The discussions formed the basis of the initial responses to the questions posed in the **USAID** Final Evaluation Guidelines. Each sub-group then presented their responses to the entire evaluation team for comments, clarification and revisions. The major conclusions and recommendations of the evaluation were presented to the MSP and Project HOPE staff on August 25 and then to the **USAID/Guatemala** Project **Officer** on August 26.

All of the team members made written contributions to this report, in English or Spanish. Dr. Homer prepared the final copy of the report for submission.

PART II

RESPONSE TO BHR/PVC GUIDELINES FOR FINAL EVALUATION & SUSTAINABILITY ASSESSMENT OF CHILD SURVIVAL VII PROJECTS

I. PROJECT ACCOMPLISHMENTS AND LESSONS LEARNED

For the purposes of this presentation of the project's overall results, three statistics will be presented for each indicator:

- The situation as measured by the Baseline Survey (which in almost all cases is the same figure presented in the DIP as the Objective for Year 1);
- The situation at Year 3, based on results from the Final Survey; and
- The DIP Objective for Year 3 (as available).

Figures for the DIP Objective at Year 2 and from the Mid-term Survey are not presented because the sample for the Mid-term was purposely based on 60 communities which had had the most contact with project interventions. Thus, this sample is not comparable to the random samples used in the Baseline and Final Evaluation Surveys. Also, in a few cases, the data for the Baseline Survey represent only 150 records because a virus partially destroyed the available data bank. However, these particular 150 records are reasonably representative of the entire sample of 300 from that Survey.

A chart showing the key project indicators by intervention is presented in Appendix 3. The report from the Final Evaluation Survey is presented in Appendix 4. Project Accomplishments are given in the same order as the interventions presented in the DIP.

A. Project Accomplishments: a. Immunization

Results for immunization of children are presented below. Results related to **TT** are given in section e, Maternal Care.

A1 and A2. Results for the Immunization of Children

Indicator	Baseline Survey	Final Survey	DIP Year 3
OPV3	36.3%	61.0%	60%
DPT3	34.8%	59.4%	60%
Measles	35.6%	58.6%	60%
Complete Coverage*	29%	53%	60%
Drop-Out Rate	41.2%	17.0%	not given

*BCG not included due to low availability of vaccine throughout the project

Clearly, immunization coverage has been a priority in this project. At the Baseline, over one third of all children under two (38%) had never been vaccinated, which contributed to the low complete coverage rate (without BCG) of only 29 %. When BCG is included in the calculation, the true coverage rate at Baseline was only 17%. Three years later, complete coverage almost doubled, reaching **53%**, and came close to meeting the Year 3 goal of 60%. Mothers' knowledge about the correct age for measles vaccination increased from 14% at Baseline to 31.4% at the Final Survey, and almost reached the DIP Objective of 35 %.

A3. Explanation of Results

The results presented above are noteworthy in themselves, and even more so given that the MSP was on strike for the first four months of 1994. In addition, the hilly terrain of most of **Totonicapán** and poor roads increased the challenge of reaching distant communities. Besides geographical barriers, there was a potent and widespread cultural fear of vaccines among the target population. This fear presented quite a contrast to many other cultures, even in Guatemala, where injections are viewed in a very positive light and sought out for almost all maladies.

Problems with the vaccines and cold chain included:

- the almost complete lack of BCG vaccine during the entire project period;
- insufficient supplies of other vaccines which grew so severe that the second National Vaccination Campaign for 1994 was suspended; and
- electrical shortages which lead to losses of vaccine at the district level.

The strategies which project staff identified as being particularly effective in raising immunization rates were: the concurrent administration of vitamin A capsules (see next section on Nutrition); seeking out newborns, one by one, by talking to **TBA**s; giving immunizations in communities in between the national campaigns, the so-called "horizontal" strategy which complements the "vertical" strategy of the MSP; engaging the entire MSP and volunteer health teams to promote immunization and to participate in the process; keeping the messages simple and using a variety of participatory methods (e.g., puppets, health fairs) to attract **families** and communication channels (e.g., pamphlets, radio announcements) to broadcast the messages.

A4. Unexpected Benefits

1. Including vitamin A as a part of the vaccination routine helps to raise the immunization rate due to the positive acceptance of vitamin A.
2. Community leaders became familiar with the concepts and details about immunization coverage by participating in the Baseline and Mid-term Surveys. They then became powerful allies in the efforts to raise immunization rates in their own communities.

A. Project Accomplishments: b. Control of **Diarrheal** Diseases

In the Final Survey, 87 of 299 mothers (29%) responded that their child had had diarrhea in the prior two weeks. The first set of data presented below refers to answers given by these mothers and the comparable group from the Baseline Survey.

A1 and A2. Results for Control of **Diarrheal** Diseases

Indicator	Baseline Survey	Final Survey	DIP Year 3
Use of: ORS packets, SSS ¹ or other HAF ²			
<u>Total³</u>	<u>35.5%</u>	<u>69.3%</u>	<u>40%</u>
DD mgt - continued ⁴ : breastmilk fluids food	44.7% 71.6% 39.3%	91.7% 88.6% 50.8%	not given
Use of: nothing medicine	19.4% 43.0%	18.2% 46.6%	not given
Know signs of dehydration	12.7%	38.5%	not given

¹ **Homemade** ORS (sugar-salt solubon)

² Other HAF (home available fluids), including rice water, teas, *atoles*

³ Represents overall "ORT Usage"

⁴ Child given equal or greater amounts of these items

The increases in knowledge of signs of dehydration are supported overall by an increase in the reported use of correct liquids during diarrhea. There was also considerable improvement in mothers' responses about their giving the same or greater amounts of breastmilk -- the rate doubled -- and lesser, but nevertheless important gains in giving fluids and food during diarrhea. Although these data are not analyzed to determine if the same mothers showed improvement in the knowledge and practice indicators, they do reflect an overall improvement in the entire target population.

The two inappropriate actions for CDD measured in the Baseline and Final Surveys, i.e., doing nothing or giving medicine (anti-diarrhetics are antibiotics), did not change over the course of the project despite the concomitant increase in giving correct fluids.

A3. Explanation of Results

In the DIP, there were plans to use approximately 40,000 ORS packets/year, but due to the **MSP's** concern about being prepared to address cholera whenever there was a case, the number of ORS packets actually available to the project was on the average **12,000/year**.

The DIP projected an increase to 40% in the use of either ORS packets or homemade SSS. Given the shortage of ORS packets, the project staff put greater emphasis on other HAF. This strategy paid off, as the use of HAF tripled by the Final Survey and contributed the most to the overall result of 66.3% of the sample using some appropriate liquid for the treatment of diarrhea.

One of the key explanations for the improvement in the treatment of diarrhea was the development of Community Oral Rehydration Units (CORUs). In rural Guatemalan villages, there are no health posts, and thus no widely accepted locale for health treatment, other than the homes of individual health practitioners, e.g., **TBA**s and traditional healers. Project HOPE introduced the concept of the CORU in order to establish a convenient, "approved" location where mothers could go for information, affordable treatment and encouragement when their children had diarrhea. Managers of the 26 CORUs were already recognized as community leaders and they devote a section of their homes, or built an addition, for the functioning of the CORU. They weigh ill children to determine the volume and rate of fluid they should receive, train mothers to prepare ORS and other HAF and record basic data about their clients on large wall charts.

One component of the CORU not seen in this type of activity in many other countries is the sale of Incaparina. Incaparina is a dried fortified weaning food which has been on the market in Guatemala for many years. Although available in commercial markets and pharmacies, its use has been primarily associated in subsidized programs such as nutrition rehabilitation centers. Project HOPE purchased Incaparina in bulk, then made it available to the CORUs at cost. Through its CORUs, Project HOPE has made Incaparina available locally, promotes it for children who have diarrhea and enables CORU managers to sell it at an affordable cost. More information on the cost-recovery aspect of the Incaparina sales is presented in Section II.D. The CORUs have also become the local center for the treatment of pneumonia (see below).

A. Project Accomplishments: c. Nutrition and Vitamin A

A total of 30% of the project's financial resources were dedicated to improving the nutritional status of vulnerable preschool children and especially to increasing the vitamin A intake of preschool children and postpartum women. A summary of the key nutrition indicators is presented below:

Al and A2. Results for Nutrition Interventions

Indicator	Baseline Survey	Final Survey	DIP Year 3
Initiation of breastfeeding ¹	63.5%	65.5%	not given
Exclusive breastfeeding	50%	51%	70%
Introduction of foods ²	13.3%	67.1%	not given
Persistence of breastfeeding ³	69.6%	75%	not given
Vitamin A supplementation: children ⁴ women ⁷	2% ⁵ NA ⁸	42.7% ⁵ 27.8%	50% ⁶ 50%

¹ Within the first 8 hours after birth

² % of infants between 5 and 9 months who are being given solid or semi-solid foods

³ % of children between 20 and 24 months who are still breastfeeding

⁴ Between 6 months and 6 years of age

⁵ The results refer to only one dose, instead of the necessary two per year, and only refer to the children under two who constituted the Baseline and Final Surveys

⁶ DIP Objective did not specify the number of doses

⁷ One dose immediately after birth

⁸ The Baseline KPC survey did not contain this question. However, vitamin A was not given to postpartum women before Project HOPE introduced this intervention. Therefore, the rate at baseline was probably 0%.

In addition to the results presented in the table above, mothers' knowledge about vitamin A increased over the project. The percentage who knew about the value of vitamin A increased from 8% (**Baseline**) to 26.1% (Final) and those who could name two or more foods rich in vitamin A increased from 0% (Baseline) to 15.4% (Final).

A3. Explanation of Results

Results for the nutrition interventions varied from no change in some indicators to substantial improvement in others. The difficulties involved in convincing women to breastfeed exclusively obviously overwhelmed the project's efforts to raise this percentage. More intensive one-on-one communications with women who are willing to try exclusive breastfeeding and public support and promotion for those who are already doing it are needed in a revised strategy.

The positive breastfeeding practices which were already in place before the project began are illustrated by the high percentages of women who breastfeed within eight hours after birth and those who still breastfeed at 20-24 months. Even though rates for these two indicators are high, it will **still** require more intensive effort to identify the factors which keep them from increasing and to develop **strategies** to overcome these barriers. General promotion of breastfeeding in the group settings which were common in this project is not enough to make a change in certain practices.

Vitamin A supplementation of preschool children showed a dramatic increase because Project HOPE made the first major attempt to distribute vitamin A capsules in the Department of **Totonicapán**. For Year 3, the efforts of the CS VII project have been complemented by those of the Vitamin A and Nutrition Project in the same Department. However, the ability to reach high coverage is greatly dependent upon the EPI campaigns to which capsule distribution is “piggybacked”. The results above reflect only one dose, as this was the number of EPI campaigns which the MSP had implemented in Year 3 of the project. If the MSP does not implement a second EPI campaign by the end of 1994, the MSP and Project HOPE’s Vitamin A and Nutrition Project will need to design and implement a coordinated strategy to distribute the necessary second dose to all eligible children in the project areas.

Also, as noted in the table’s footnote, the vitamin A supplementation data only refer to coverage of the children under two in the CSSP surveys. The DIP identified preschool children from six months to six years as the target group, but the CSSP evaluation mechanism does not permit “capturing” data about older siblings. It would be financially prohibitive for Project HOPE to implement a separate survey just to evaluate the supplementation status of older children. For now, output data for the distribution of vitamin A capsules will have to suffice.

To this end, Project HOPE has data available from the Vitamin A and Nutrition Project, as of August 1994. In six municipalities of Totonicapán, a total of 17,094 children between 6-72 months old, or 35% of the target group, received one vitamin A capsule in the first supplementation round. Therefore, compared to the data from the Final Survey shown in the above chart, the children older than two years are somewhat less likely to receive this supplement than the younger ones.

Results from interviews during the Final Evaluation show that vitamin A supplementation of postpartum women through the **TBAs** is a very effective strategy. Before this CS VII project, this intervention did not exist. By the time of the Final Survey, one in four, or 25% of postpartum women in the target area were receiving a vitamin A capsule from their TBA. These **TBAs** reported that women not only accept the vitamin, they ask for it. The demand by women themselves creates a self-reinforcing cycle which motivates the **TBAs** to participate in the project. This strategy was developed and tested in the CS VI Vitamin A Project which was implemented in the Departments of Quetzaltenango and San Marcos. The MSP district nurses manage the vitamin A supplies for the **TBAs** and distribute them through the monthly meetings.

A. Project Accomplishments - d. Maternal Care

The Baseline Survey showed that 95% of births in the project area are attended by **TBAs**. This statistic called for significant attention to the role of **TBAs** in implementing the CS interventions related to Maternal Care. The Maternal Care component was implemented for the most part by one project staff member, an obstetrical nurse, who focused her work on the **TBAs**, the **TBA** peer supervisors and the local and district MSP staff who interact with the **TBAs**. The 20 TBA peer supervisors were experienced **TBAs** who can speak Spanish and who were selected by their own colleagues to undertake training to become trainers and supervisors of a group of 4-10 other **TBAs** in their local area. For this work they were paid a monthly stipend by the project, ranging from \$9-21, depending on the number of **TBAs** they were supervising. The TBA peer supervisors met with the project staff once per month, taking turns among their different communities. Some key results of the Maternal Care component are presented below.

Al and A2. Results for Maternal Care

Indicator	Baseline Survey	Final Survey	DIP Year 3
Knowledge about TT	22%	40.1%	35%
Mothers with cards	11.0%	31.8%	not given
TT2 coverage of mothers with cards	57.5%	76%	not given
Overall TT2 coverage	6.4%	24.4%	30%
Ante-natal visits¹: from card from self-report	7.7% 20.7%	8.0% 31.4%	not given not given
Family planning²	3.4%	3.0%	15%

¹ Those who visited a hospital, health center or physician

² % of mothers who are using a modern contraceptive method

The **TBAs** who are working with the project have helped to raise awareness among mothers about the need for pre-natal examinations. At the baseline, only 20.7% of the mothers surveyed reported that they had visited a physician or health facility for a pre-natal exam for their last child; this rate increased by half to 31.4% at the Final Survey. Not included in this indicator are those women who reported that they had visited a TBA for their pre-natal care; this indicator rose from 49.2 % at Baseline to 8 1.3 % at the Final Survey. It is tempting to speculate that over

the course of the project, the **TBA**s not only convinced more women to seek their **[TBA]** services for pre-natal exams, but also, through their referrals, accounted for the increase in the percentage of women who sought out more specialized medical care during their pregnancy.

While the mothers surveyed showed an improvement in their reported behavior regarding pre-natal care, their responses reflecting their knowledge of the danger signs of pregnancy did not improve. During the Baseline, 48.5% responded that they did not know any danger signs; this increased to 57.5 % at the Final Survey. Those who identified edema as a danger sign increased slightly from 8.7% to 11.7%; there was a similar slight increase in identifying hemorrhage, from 2.3% to 6.4%. However, in contrast, those who identified headaches decreased from 30.4% at the Baseline to 25.4% at the Final Survey. An explanation for these apparent poor results is that the **TBA**s were the first target group for understanding and recognizing danger signs of pregnancy. and that this step has been taken. Dissemination of this knowledge to mothers is a second step which- requires on-going efforts. In addition, a portion of the mothers included in the Final Survey were attended by **TBA**s who were not involved in the project.

Data from the project's HIS showed the following outputs for the Maternal Care component by the time of the Final Evaluation:

- 20 TBA peer supervisors selected and trained, providing training and follow-up to groups of 6-30 **TBA**s each
- 250 **TBA**s trained (including the 20 peer supervisors)
- 4,643 mothers educated about reproductive care
- 46,946 prenatal visits given by trained **TBA**s
- 6,700 deliveries attended by trained **TBA**s over the 3 years
- in Year 3, 3526 deliveries (of an estimated 8339 in all 4 project districts), or 42.3%) were attended by trained **TBA**s

A3. Explanation of Results

With this component, as in all the others, the project staff had to take into consideration the past 10 years of extreme political violence which the target population had suffered. One of the ways this violent period reflects itself now is in the distrust of outsiders and low levels of participation in whatever these outsiders offer. Fully aware of this formidable barrier, the project developed a cadre of TBA peer supervisors who helped train and follow-up a small group of their peers.

The innovative component of bilingual TBA peer supervisors provided a critical link in communications between the **TBA**s and project staff. This communications role was not merely one of verbal translation, but also served to translate the two cultures to each other. The basis of mutual respect between and among the project staff, TBA peer supervisors and **TBA**s involved in the Maternal Care intervention was identified as a key explanation of the success they shared.

Basic CS indicators of maternal care were very low at the Baseline Survey, providing ample opportunity for improvement given a well-designed and executed intervention. With the exception of family planning, the resulting rates of improvement were impressive: mothers' knowledge about the role of **TT** increased beyond the Year 3 goal; the percentage of mothers with maternal cards tripled; and 'IT2 coverage almost quadrupled (even though it did not meet the goal for Year 3). Of the mothers who had cards reviewed in the Final Survey, 76.0% had **TT2** and another 19.8 % had **TT1**. These results show that the word about **TT** is getting out and the women are accepting. The complementary efforts to increase EPI coverage for children also helps to bring women to EPI activities where they can receive their **TT** immunizations.

Explanations for the difficulty in making any progress in family planning include:

- The so&-cultural context in which men are against family planning in the first place and are given decision-making authority over women and for issues which affect women made it difficult to raise the subject of family planning.
- The target population for this component was not well defined within the overall target population, and therefore, the project staff could not focus on those who were truly **interested**.
- The Guatemalan Congress recently approved a policy about population and many groups expected that it would help their efforts in family planning. Unfortunately, the opposite occurred, as the legislation stimulated vehement reactions which acted to hamper the project's efforts to promote family planning.
- The active opposition of the Catholic and Evangelical churches to family planning, and the dissemination of falsehoods about negative effects of artificial contraception created formidable barriers for the project staff.

A. Project Accomplishments - e. Acute Lower Respiratory Infections (ALRI)

ALRIs are definitely a major problem with the target population: 44.1% of the children in the sample for the Final Survey had been ill with a cough or difficult breathing in the prior two weeks. And, 19.496, or almost one in every five children, had experienced symptoms of pneumonia (rapid or difficult breathing) in this same period. Key results for the project are shown in the chart on the next page.

Al and A2. Results for Acute Lower Respiratory Infections

Indicator	Baseline Survey	Final Survey	DIP Year 3
Training in norms: MSP staff volunteers CORU mgrs	- -	46 250 26	42 100
Mothers' knowledge of danger signs: chest indrawing rapid breathing	1% 20.1%	11% 27.1%	50% (total)
Care-seeking for ALRIs¹	12.2% ²	68.8% ³	50%

¹ Percent of mothers who sought appropriate medical treatment for the child with ALRI in the past two weeks.

² There were no trained volunteers (CORU managers and health promoters) at the time of the baseline, so this figure only relates to MOH personnel

³ This figure includes MOH personnel and trained volunteers

A3. Evaluation of Results

As forecast in the DIP, the project delayed training in ALRI until the MSP had officially adopted the new **PAHO** norms which changed the classification of ALRIs from mild, moderate and severe to a new emphasis on the detection and treatment of pneumonia. Thus, it was not until Year 3 that this process had taken place within the MSP and Project HOPE could begin to help to disseminate information about and train staff in the new norms.

Once the project could move forward on ALRIs, there was considerable attention given to this component. All of the key MSP staff who were identified for training completed the workshop and the 26 CORU managers did as well. One particularly effective teaching aid was an WHO video which was retaped in **K'iché**. This video showed clearly the two danger signs which all MSP staff and CORU managers learned were indications for treatment: rapid breathing, as determined by counting the respiratory rate; and chest indrawing. Even though special precautions were necessary for transporting the sensitive video equipment to village sites for training, the staff agreed that the teaching video was well worth the effort.

Despite the fact that the ALRI component was only implemented in Year 3, there are positive results in the key indicators and an interesting reversal in results for relative changes in knowledge and behavior. Usually greater gains are made in improving knowledge than in actual

behavior related to any given CS intervention. However, in this project, while knowledge about the two major danger signs of pneumonia improved somewhat, the percentage of mothers who reported “correct” behavior in seeking care for a child with ALRI increased nearly sixfold. While these results can partially be attributed to this intervention being given emphasis right up until the Final Survey, they can also be attributed to the real demand for information about ALRI, an affordable, community-based option for treatment and promotion of the CORUs by project staff, **TBAs** and other village leaders.

Of particular interest is the **MSP’s** willingness to allow the CORU managers to give injections of penicillin to children diagnosed with pneumonia. The MSP is acutely aware of the need for making an effective pneumonia treatment available and affordable to mothers who live hours from an MSP health post and who would not seek treatment there until the pneumonia had become severe. The MSP provides the penicillin; clients are charged for the syringe and service given by the promoters. Reports on the numbers of children screened, treated and referred for **ALRIs** are kept on the wall of the CORUs and monitored by project and MSP staff.

A4. Unexpected Benefits

Although the CORUs were designed and implemented as locales for treating diarrhea, they have effectively expanded their role and included the treatment of pneumonia. Mothers trust the CORU managers in their ability to identify pneumonia and are willing to pay for the penicillin injections. This effective expansion of fee-for-service to encompass pneumonia, a major childhood illness and killer in **Totonicapán**, bodes well for increasing the scope of the CORU managers vis-a-vis other CS interventions and potentially for the sale of basic drugs. These managers are becoming recognized in their villages as persons who know how to treat diarrhea and pneumonia and are not in competition with healers who treat other illnesses in other ways.

A. Project Accomplishments - f. Improving Vital Statistics

A1 - A4. According to the DIP, there were plans to train 25 auxiliary mayors per year to improve their recording of vital events. This activity was not undertaken in this CS VII project, but was transferred to Project HOPE’s concurrent MCH project which is also being implemented in the Department of **Totonicapán**. Given the institutional strengthening objectives of the MCH project, both Project HOPE and its counterparts agreed that training to improve vital statistics was a very appropriate activity in that project. The first training courses for auxiliary mayors and civil registrars have recently been completed.

B. PROJECT EXPENDITURES

B1. Pipeline Analysis - See Appendix 5

B2. Comparison of Actual Expenditures with Those Proposed

The major difference between the budget as presented in the DIP and actual expenditures relates to the Personnel category for Project HOPE's staff in the Guatemala. When the first Project Director departed, he was replaced by a consultant who had much experience working with Project HOPE in other countries. The second Project Director was hired at a higher level than the first. Both of these personnel changes resulted in higher expenditures overall in the Field Personnel category. In-country travel costs were slightly higher than expected due to increases in gasoline costs. All of the unanticipated extra expenditures were balanced by decreases in other parts of the budget, particularly through cost-sharing with other projects. The regular project activities ended in August 1994 and the Final Evaluation KPC survey was undertaken in September. Activities related to preparing the evaluation report continued into October 1994.

B3. Management of Project Finances

Project HOPE's grant funds are managed locally in Guatemala and financial reports are sent monthly to HOPE Center in the USA. Discrepancies which develop are reconciled in a timely fashion. There were no difficulties worthy of note in the management of **USAID** and PVO funds in this Child **Survival** grant.

B4. Lessons Learned - There were no significant lessons learned regarding project expenditures.

C. LESSONS LEARNED

Overall

- Learning the local language is an indispensable contributor to success.
- Community interest is sparked by the use of participatory learning methods. Therefore, it is **necessary** to promote training in these participatory adult learning techniques for the MSP personnel charged with day-to-day execution of CS interventions. These personnel can also benefit from learning about the local culture and appropriate ways to become involved in it.
- It is important to share experiences with other **NGOs** and learn from their mistakes. Trying to replicate their successes can also bring success, as in the adoption of the CORU model from Project HOPE's experience in Nicaragua or can lead to failure, as in the attempt to replicate Project Concern-Guatemala's use of special wristbands for monitoring EPI coverage.

- Responsibilities to be divided between the project and counterpart need to be spelled out in letters of agreement before field activities begin.
- Involving counterparts and community representatives from the beginning improves the project design and their commitment to it.

EPI

- In order to increase immunization coverage, it is important to increase the opportunities beyond the national campaigns where vaccination can be offered, such as monthly sessions in the community and special trips to communities which are difficult to access.
- Adding recreational activities such as puppet shows and *piñatas* to the vaccination sessions helped to attract more people and thus increase acceptance to the concept of vaccination.
- **TBAs** who brought their clients (pregnant women) to community meetings for discussion of their cases with Project HOPE's nurse supervisor provided opportunities to vaccinate these women with **TT**.

CDD

- Involving the MSP personnel in the supervision of the CORUs and pharmacies will be key to their sustainability in the community.
- The persons responsible for the CORUs need intensive training and on-going supervision with regard to the administrative and financial aspects of their activities.
- Project HOPE should promote the organization of cooperatives of **TBAs** for developing group income generation activities that would support the sustainability of their **TBA** peer supervisors.
- The community's willingness to pay for drugs and health services should be applied to ORS packets, with participation and approval of the MSP, to support overall cost-recovery in the health sector.

Maternal Care

- The administration of vitamin A by the **TBAs** sparked an interest in the clients for receiving the capsule and thus stimulated the **TBAs** to continue to participate in the project.
- Working with **TBAs** has improved their self-esteem through their training and the increased income trained **TBAs** receive for their services.

- Outsiders who wish to work in Mayan communities have to authentically demonstrate their purpose and their knowledge and respect of local values and customs in order to achieve effective interaction with community residents.
- It is important to identify "**TBAs at risk**" -- that is, those who give oxytocin to their clients -- and focus specific attention on them in the effort to modify a behavior that reduces maternal and newborn chances for survival.
- An effective teaching strategy for **TBAs** is analyzing all cases of maternal and neonatal death which occur in their communities and discussing contingency plans for the future.
- The provision of free supplies to **TBAs** at the beginning of the project did not make it easy to encourage the **TBAs** to purchase these same supplies later on; therefore, it is recommended to sell the supplies initially at a subsidized price instead of giving them free.
- Educational messages which address family planning should be presented within an overall context of improving maternal and child health, and not focused solely on family planning per se.
- Orientation for family planning should be directed to interested couples, not just women, and should be provided at convenient times.

ALRI and Pharmacies

- A longer project life is necessary in order to work with CORU and pharmacy managers over a sufficient period of time to help them become firmly established services in their communities.
- It is possible for trained community members to provide community-level treatment for diarrhea and **ALRIs**. This lesson is relevant for all countries which have problems with access to this particular health service.
- Establishing a profit margin -- even very small to begin with -- is critical for sustaining the interest of the CORU and pharmacy managers.
- Materials and supplies need to be adopted and distributed according to the realities of the community.



PROJECT SUSTAINABILITY

A. Community Participation

A1. Please identify community leaders and members interviewed and indicate which group(s) the leaders represent

Please refer to Appendix 2 for the list of community leaders and members who were interviewed during the Final Evaluation.

A2. Which child survival activities do community members and leaders perceive as being effective in meeting current **health** needs?

These CS VII activities are (in no special order):

- Training auxiliary mayors, promoters and other community leaders, **TBA**s, TBA peer supervisors, mothers, persons responsible for pharmacies and CORUs, and counterparts in the key CS interventions: EPI, CDD, ALRI (especially danger signs of pneumonia), hygiene, nutrition and maternal care;
- Distribution of ORS at the community level through **TBA**s, promoters and volunteers;
- Distribution of vitamin A to post-partum women and children from 6 months to 6 years;
- Implementation of CORUs -
 - Distribution of ORS and training in ORT,
 - Sale of Incaparina,
 - Treating children with pneumonia,
 - Distribution of vitamin A;
- Implementation of pharmacies;
- Community and household gardens;
- Household visits made by project field **staff**; and
- Follow-up for promoters and **TBA**s.

A3. What activities did the PVO carry out to enable the communities to better meet their basic health needs and increase their ability to sustain effective child survival project activities?

In effect, all of the activities listed above in A2 were designed to help the communities better meet their basic health needs. In addition, those which were implemented to increase communities' abilities for sustaining effective interventions are:

- Reinforcing knowledge through the principles and practice of non-formal adult education;

- On-going training of the 20 TBA peer supervisors and those responsible for pharmacies;
- Formation and active involvement of mothers' groups;
- Formation- and activities of neighborhood mother leaders (mudres **vigilantes**) in Momostenango;
- Demonstrations about preparing local foods, with the active participation of women and **TBA**s;
- Identification and training of promoters and volunteers;
- Implementation of 26 CORUs and 4 pharmacies;
- Coordination between and among the MSP, other governmental groups (e.g., teachers in the Ministry of Education) and other **NGOs** (e.g., APROFAM, church leaders, GRT, ADRA); and
- Provision of technical assistance to support other development activities not included in the CS VII project design, but requested by the communities (e.g., latrines and improved stoves).

A4. How did communities participate in the design, implementation and/or evaluation of child survival activities?

Design - Communities did not participate directly in this phase

Implementation

- Collection of data during household visits;
- Provision of locales for the group meetings and demonstrations;
- Space, material and labor for the construction of CORUs;
- Land for household, school and community gardens;
- Time spent accompanying field staff in the implementation of activities (in gathering people together, immunizations, household visits, educational talks, demonstrations and serving as translators for all activities);
- Community education - serving as leaders where: TBA peer supervisors teach **TBA**s; **TBA**s teach mothers; promoters teach mothers, volunteers and leaders; and mother supervisors teach mothers;

- Participation of community volunteers in three projects for improved stoves, benefitting 120 families and three child feeding centers in the district of Sta. **Marfa** Chiquimula;
- Implementation of activities in the **CORUs**: **ORT**, **ALRI** and nutritional support;
- Supervision of **TBA**s by their TBA peer supervisors; and
- Provision of ingredients (e.g., vegetables, spices, herbs), firewood and utensils for demonstrations;

Evaluation

- Time given for the Baseline, Mid-term and Final Evaluations as interviewers (e.g., local community leaders, **TBA**s, volunteer Rural Health Promoters) and interviewees;
- Time for discussion of results of the Baseline and Mid-term Surveys;
- Inclusion of a community representative on the team for the Final Evaluation; and
- Opportunities provided to the Final Evaluation team to observe community-level project activities.

A5. What is the number of functioning health committees in the project area? How often has each met during the past six months? Please comment on whether committee members seem representative of their communities.

Before the CS VII project began, there were already some health committees in the participating communities, such as committees for monitoring cholera and the Adventist Health Committee of Santa **Ana**. Initially, Project HOPE helped create four committees for the implementation of community pharmacies and they met once per month. However, these committees did not function well and were abandoned for a strategy of having only one person responsible for each pharmacy.

Given the low level of community organization in the project area, Project HOPE decided not to form health committees per se, but rather to form 60 community-level mothers' groups. They meet once or twice per month and members are representative of the whole community.

In addition, another type of committee are groups of **TBA**s which are each guided locally by their TBA peer supervisor. These 20 groups meet one-two times per month. Finally, there are eight groups of mothers in Momostenango which meet once a month, under the guidance of their local mother leader.

- A6. What are the most significant issues currently being addressed by these health committees?

The mothers' groups mentioned above are addressing the following issues: cholera, EPI, ORT, ALRI, nutrition and food demonstrations, vitamin A, breastfeeding, maternal care and family planning. The TBA peer supervisors train their **TBA**s in pre-natal care, techniques for a clean delivery, postpartum care, good nutrition and supplementation with vitamin A, dangers signs of pregnancy and appropriate referrals. The neighborhood mother leaders in Momostenango give educational talks about EPI, ORT, ALRI, vitamin A and nutrition.

- A7. Please give specific examples of the methods used by the committees and of their precise role in providing direction to the project.

Participatory methods are used by project staff in training community leaders (e.g., promotors, **TBA** peer supervisors) who then adapt these for working with their primarily non-literate community groups of mothers and **TBA**s. Sets of laminated pictures are particularly useful in this regard and trained promotors have been given these to use by themselves. The methods used in various communities have varied in response to the special characteristics of each group. For example, in order to attract more women to meetings in areas where they are especially fearful of strangers, project staff have used puppets and *piñatas*.

TBAs helped guide the project by deciding that they would like to meet in small groups (4-10) with other **TBA**s from neighboring communities instead of the more familiar larger group format with 20-30 **TBA**s. In addition, **TBA**s requested the field staff to provide **TT** to pregnant women and to evaluate the cases of selected individual pregnant women as a check on their [**TBA**s'] own assessment skills and knowledge about indications for referral.

Mothers guided the project by selecting the specific themes which they wanted the promotor and/or project field staff to address at the monthly group meetings. Trained community leaders were given the responsibility to act without project staff in various settings, for example: promotors and mother supervisors provide leadership in meetings of mothers' groups; **TBA** peer supervisors supervise the **TBA**s in their own group, ranging from 4 - 20 other women; and the persons responsible for the CORU are responsible for treating children with diarrhea and pneumonia.

Community groups were instrumental in petitioning project staff to train their promotors, to establish **CORUs**, to coordinate with other **NGOs** (e.g., CARE and Fe y Alegria) and to bring MSP staff to implement community-level clinic days at the pharmacies and with groups of **TBA**s.

- A8. What resources has the community contributed that will encourage continuation of project activities after donor funding ends?

These resources **can** be divided into the categories below:

Human

active TBA peer supervisors

active **TBAs**

rural health promotors

persons responsible for the CORUs and pharmacies

Physical

locales for the CORUs and pharmacies

land for gardens

Economic

Women are willing to pay a higher fee (from **Q35** to QSO [**\$7** to \$101) to some of the project-trained **TBAs** who have raised their fee, based on the rationale that they now provide a better service than before.

The community of Tzanixnam purchased basic TBA supplies for its newly-trained TBA who had never practiced before.

Time

time invested in implementing or participating in a variety of project activities

A9. What are the reasons for the success or failure of the communities [editorial change from the document's wording of "committees"] to contribute resources for continuation of effective project activities?

Success

- Presence of the CORUs in difficult-to-access communities;
- The community's acceptance of fees for the goods and services provided by **TBAs** and the CORUs;
- The raised awareness and acceptance of the communities about child survival interventions and their need to continue in the future;
- The acceptance of higher fees imposed by project-trained **TBAs**, in exchange for higher quality service

Failure

- Poverty on the part of the promotor and the community;
- Insufficient time for the promotor to participate in CS activities;
- Inconsistency of MSP policies regarding cost recovery (e.g., a promotor can charge for a penicillin shot but not for providing an ORS packet, which is donated and therefore currently prohibited from being sold); and

- Insufficient quantities of supplies for health services (e.g., vaccines [especially BCG], ORS, antibiotics, vitamin A capsules, soap, razor blades, material for tying the umbilical cord, seeds).

B. Ability and Willingness of Counterpart Institutions to Sustain Activities

- B1. Please identify persons interviewed and indicate their organization and relationship to the child survival project.

Please refer to Appendix 2 for the list of representatives from counterpart organizations who were interviewed during the Final Evaluation.

- B2. What linkages exist between the child survival project and the activities of key health development agencies (local/municipal/district/provincial/state level)?

The response below excludes the MSP, as it is the focus of the majority of other questions in this section. Linkages between Project HOPE and four key agencies affected the project as a whole. Collaboration with many other agencies existed during the project (see **B3**), but was stronger in some districts than in others.

PAHO

Contributions from **PAHO** to the CS VII Project have included: guidelines for the formation and implementation of community pharmacies; guidelines for evaluating the management of ALRI cases; training videos about dehydration and ALRI, used with project staff, MSP and NGO counterparts; and written materials such as newsletters on technical issues.

UNICEF

Jointly with Project HOPE, UNICEF implemented a planning workshop to determine the essential equipment and supplies for **TBAs**. UNICEF also provided educational materials for **TBAs** (7 TBA kits, 7 simple briefcases and a **manequin** for training) and promoters and equipment and supplies for the **CORUs** (**Navarro** charts, hanging scales, plastic containers for teaching how to prepare ORS).

GRT (*Grupo de Relaciones Transculturales* - Group for Transcultural Relations)

GRT is an Italian NGO which works in only in the Department of **Totonicapán**. During the project, there was extensive sharing of information between Project HOPE and GRT about their respective experiences working in Totonicapiti. Project HOPE staff participated in a particularly useful GRT workshop on the “World View of the Mayan Population”. Food demonstrations are in high demand in the target communities and Project HOPE and GRT shared recipes which were popular. Also, Project HOPE staff prepared their GRT counterparts for training **TBAs** in GRT-assisted communities about the contraindications of using oxytocin.

CLAPP & MAYNE

Clapp & Mayne is a consulting firm hired to implement **USAID/Guatemala's** Child Survival project. Collaboration with Project HOPE included financial support for meals for counterparts and community volunteers who participated in training courses about EPI, ALRI and control of diarrhea.

Finally, all four of the above agencies were signatories on the letter of agreement related to the **MSP's** Annual Organizational Plan for maternal and child health activities in the Department of **Totonicapán**, developed under the leadership of Project HOPE.

- B3. What are the key local institutions the PVO expects to take part in sustaining project activities?

In alphabetical order:

APROFAM, auxiliary mayors (who work more closely with rural communities than the mayors), CARE, Catholic Church, community development committees, CONALFA (National Literacy Committee), **DIGESA**, Evangelist Church, **Fé y Alegria**, INTECAP (Technical Training Institute), MSP, municipal governments and primary school teachers.

- B4.** Which child survival project activities do MOH personnel and other staff in key local institutions (including counterpart organizations) perceive as being effective?

In no particular order:

- Training and follow-up of TBA peer supervisors;
- Creation and implementation of **CORUs**;
- Training mothers in ORT;
- Monthly vaccination services in the community;
- Training the majority of families in the use of ORS;
- Vitamin A supplementation of children between 6 months and 6 years of age and of post-partum women;
- Training **TBA**s and mothers about high risk pregnancies;
- Project staffs learning of elementary **K'iché**;

- Training courses for **MSP's** rural health technicians and auxiliary nurses in high risk pregnancies, management of the cold chain and the correct vaccination techniques;
- Training for MSP personnel in the new **PAHO** norms for the detection and treatment of pneumonia; and
- Participation of all MSP auxiliary nurses in TBA training and continuation of some of them in the follow-up activities.

B5. What did the PVO do to build skills of local MOH personnel or staff of key counterpart **NGOs**? Did they teach them to train **CHWs** or manage child survival activities once **USAID** funding terminates?

MSP staff and NGO representatives from GRT, CEDRO (Committee Promoting the Development of the Western Region of Guatemala) and the Catholic Church were trained in:

- EPI (cold chain management and correct vaccination techniques);
- ALRI (new norms for pneumonia);
- indicators and referral of high obstetrical risk;
- breastfeeding;
- participatory learning principles and techniques;
- TOT techniques for sessions with **TBA**s on the contraindications of oxytocin; and
- Training the **GRT's** TBA peer supervisors to evaluate their own work with **TBA**s.

B6. What is the current ability of the MOH or other relevant local institutions to provide the necessary financial, human, and material resources to sustain effective project activities once CS funding ends?

This process was well under way by the time of the Final Evaluation as project staff and their counterparts were sensitive to this issue throughout the project life. The items listed below in section B8 represent important steps towards sustainability. Discussion of this subject with counterparts at the time of the Final Evaluation revealed an overall consensus of opinion. The MSP feels that its biggest deficits are in the areas of transportation (vehicles, maintenance and fuel) and supplies. In the former area, Project HOPE will be donating one of its vehicles to the MSP for field work and also some motorcycles for the same purpose. The MSP is working on a new strategy with CARE to recover some of the costs from the Title II food supplementation program and use them for transportation.

The MSP reports that its cadre of human resources is now better trained because of the CS VII project and that these staff will now be able to train others. The organizations involved in the Annual Operating Plan for the Department of **Totonicapán** are also helping to co-finance supplies and training activities which will continue once the CS VII project terminates.

B7. Are there any project activities that counterpart organizations perceive as effective?

See response to same question in B4.

B8. How have major project responsibilities and control been phased over to local institutions? If this has not been done, what are the plan and schedule?

Actions Already Taken

- Efforts made to involve MSP staff in all training of **TBA**s, promoters and community leaders;
- Materials, methods and lessons learned have been shared with the MSP;
- **TBA**s, promoters and persons responsible for the CORUs report to the MSP on a regular basis;
- The majority of the supplies for the CORUs come from the MSP; and
- Activities of the CS VII project are included in the **MSP's** 1994 Annual Operating Plan for the Department of **Totonicapán**.

Actions Pending

- Share lists of community leaders with the MSP;
- Decide which remaining CS VII activities will be taken over by the MSP or HOPE (Vitamin A or MCH project);
- Negotiate with the Departmental MSP Office about standardizing the information system for the **TBA**s, CORUs and promoters; and
- Develop a proposal and submit to the Guatemalan government's "Peace Fund" (**FONAPAZ**) as a potential source of continued support for the TBA peer supervisors component.

B9. Did any counterpart institutions (MOH, development agencies, local **NGOs**, etc.) during the design of the project (proposal or DIP), make a financial commitment to sustain project benefits? If so, have these commitments been kept?

In the first two years of the project, there were no commitments of this nature. However, in Year 3 (**1994**), the AOP for the MSP includes resource commitments from

the key agencies working in health in **Totonicapán**: MSP, Project HOPE, Clapp & Mayne and UNICEF.

B10. What are the reasons given for the success or failure of the counterpart institutions to keep their commitment?

Since this is the first year of the AOP, the responses below refer to earlier commitments from the MSP to the CS VII project.

Reasons for Success to Meet Commitments:

- The MSP had the minimum supplies necessary for supporting community volunteers (**TBAs** and promoters), e.g., drugs, ORS and multivitamins and had the personnel available to meet monthly with these volunteers (although these meetings actually took place in only a few places before the CS VII project);
- Close follow-up of project activities provided the MSP with data they needed in order to restock supplies in health centers and health posts; and
- Monthly meetings with **TBAs** in MSP health facilities were convenient for MSP staff to attend.

Reasons for Failure to Meet Commitments

- Insufficient financial and material resources of the MSP;
- Insufficient numbers of functioning vehicles for field work;
- Negative attitudes on the part of some MSP **staff**; and
- Lack of MSP interest in learning **K'iché**.

B. 11 Identify in-country agencies which worked with the PVO on the design, implementation or analysis of the midterm evaluation and this final evaluation.

Mid-term Evaluation

- MSP personnel from all four districts participated as interviewees and three representatives were members of the evaluation team.

Final Evaluation

- Same as above, except that only one member of the MSP participated on the evaluation **team**;

- Primary school teachers (Ministry of Education) participated as interviewees; and
- Representatives from CARE and *Fé y Alegria* were also interviewed.

C. Attempts to Increase Efficiency

C1. What strategies did the PVO implement to reduce costs, increase productivity, or otherwise make the project efficient?

- Acquisition of goods and materials from other agencies, e.g., UNICEF donated Navarro charts and educational materials for the CORUs and the MSP donated penicillin for the same.
- Location of CORUs and pharmacies in the houses of the promoters and volunteers meant that no rent had to be paid.
- Large-scale purchase of Incaparina allowed it to be sold through the CORUs at a subsidized price to community residents (**Q0.50/packet**) compared to the higher price in the market (**Q0.75/packet**).
- Most training events for counterparts and community leaders and members were held close to their communities or places of work, thus reducing costs for transportation and per diem.
- The project did not automatically choose new community health workers, but chose to work with those promoters and **TBA**s already trained by the MSP.
- Creation of opportunities for the persons responsible for the CORUs and pharmacies to earn a small margin of profit for their services;
- Cost-sharing with other activities being implemented by Project HOPE through its Vitamin A and MCH projects (e.g., office rent, telephone, electricity, administrative personnel, and bulk purchases of supplies and materials.
- Food for the community volunteers during their training was prepared by their communities.
- For the majority of food demonstrations, members of the community donated ingredients for the recipes, firewood, utensils and space.
- The six project field staff lived in the districts to which they were assigned, thus reducing transportation and communication costs.
- The best staff from the previous CS project were absorbed by the new project.

c2. What are the reasons for the success or failure of the attempts to increase efficiency of this **project**?

Reasons for Success

- The six field staff lived within their assigned districts.
- On-going training for the field staff in the Child Survival interventions of this project and other related issues such as AIDS, participatory educational methods and classes in K'icht.
- Field and office staff who are well chosen for their job, dedicated to their work and have high standards of responsibility and performance.
- The interest of project staff to learn from the relevant experiences of others (e.g., GRT, Catholic Church, UNICEF, MSP, CONAPLAM and Project CONCERN) and to apply these learnings where appropriate to Project HOPE's efforts.
- The opportunity to visit other projects in action, e.g., the **INCAP** study in Antigua Guatemala about perinatal mortality.
- Training for the project staff in participatory learning methods and in training of trainers methods for **TBA**s through an NGO workshop in **Coban**.
- Exchange of lessons learned with Project HOPE's other Child Survival projects through reports and workshops.

Reasons for Failure

- Changes in Project Director caused a delay in recruiting the second Director and a reorientation in direction for the project staff.
- Poor supervisory skills of project's previous Field Supervisor.

c3. Are there any lessons to be learned regarding attempts to increase efficiency that might be applicable to other PVO child survival projects or to **USAID's** support of these projects?

- To promote smooth operations, the MSP counterparts should participate from the beginning of the project and should be involved in regular (three times/year) evaluations of project progress.
- Project field staff need to learn to be trainers of trainers of the MSP staff and community leaders, instead of implementers themselves of direct health services.

- In this particular setting, the project needs to reorient the strategy of its family planning component, e.g., to work with couples with expressed interest in family planning; to work with adolescents in the 5th and 6th grades of primary school; and to meet with interested persons during convenient hours for them, rather than attempting to educate all mothers through group meetings.

D. Cost Recovery Attempts

- D1. What specific cost-recovery mechanisms (i.e., revenue-generating measures) did the PVO implement to offset project expenditures? If cost recovery was part of the project, who managed implementation?

The only cost-recovery mechanism which brought revenue back into the project's control was the subsidized sale of Incaparina through the 26 CORUs for the nutritional rehabilitation of malnourished and otherwise ill children. Although this strategy was implemented only within the last four months of the project, it shows great promise and will be continued through the MCH project. The packet costs the project Q0.48 and it is sold for Q0.50 in the CORUs. Of the sale price, 40.40 is returned to the project and Q0. 10 remains with the person running the CORU.

- D2. Estimate the dollar amount of costs recovered during the project. What percent of project costs did this revenue cover? Did the cost recovery mechanisms generate enough money to justify the effort and funds required to implement the mechanisms?

Using the example above of the sale of Incaparina, the 1,421 packets sold (@ Q0.50) have generated a total of Q682. Of this amount, a total of Q568, or 7396, has been recovered. This amount, which is approximately \$103, only represents the three months that this component has been operating, but it still would be an insignificant percentage of total project costs even if it had been operating for the full three years.

Nevertheless, the sale of Incaparina has justified the effort and funds required to implement this component because of the great **need** at the community level for affordable nutritional supplements and the need for the CORUs to generate a small margin of profit for their managers. This component, together with the fee-for-service for penicillin injections for pneumonia **and** the four community pharmacies, are crucial first steps -- however modest -- for the MSP, project personnel and community members to learn through real examples about the concepts of cost-recovery for health services.

- D3. What effect did any cost recovery activity have on the **PVO's** reputation in the community? Did the cost recovery venture result in any inequities in service delivery?

The sale of Incaparina has been well accepted because the price is less than that in the market. There are no indications that this activity has brought about any inequities in service delivery.

- D4. What are the **reasons** for the success or failure of the cost-recovery [editorial change from the Guidelines' original wording of "household income generating"] activities of this project?

The success is due several factors: the price of the Incaparina is reasonable; there is sufficient promotion of Incaparina's benefits; there is adequate training in its preparation; and the service is available in the community.

- D5. Are there any lessons to be learned regarding cost recovery that might be applicable to other child survival projects or to **USAID's** support strategy?

- All health services do not necessarily need to be free. The general population can take responsibility for some costs in a gradual process.
- Cost-recovery mechanisms do not always have to be on a grand scale - in countries with few precedents, it is important to start small, in a small area and with a few services.

E. Household Income Generation

- E1. Did the project implement any household income-generating activities?

As a result of their training and increased self-esteem, some of the **TBA**s participating in the project raised their fees for delivering babies.

The managers of the CORUs and the pharmacies earned income from the small margin of profit for the sale of their goods and services.

- E2. Estimate the dollar amount of income added to a family or household's annual income, as a result of the income-generating activity of the project.

Even though the amounts below are small, this additional income is an important supplement to these project participants because rural income levels are very low and income generation opportunities are so few.

The managers of the CORUs earn the following:

- from the sale of Incaparina, QO. 10 profit per packet x an average of 25 packets/month = **Q2.50 (\$0.45)**,
- from injections of penicillin, QO.50 per injection x 7 injections/child x 3 children/month = **Q10.50 (\$1.90)**, and

- from the sale of children's vitamins, **Q0.05** profit/tablet x 60 tablets/bottle x 5 bottles/month = **Q15.00** (\$2.73).

Pharmacies earn 10% on each sale with an average monthly profit of 430. This is divided equally between the two people who run the pharmacy, for individual earnings of **Q15** each (\$2.73).

The **TBA**s who raised their fees earn an additional **Q20.00** per delivery x an average of 7 deliveries/month = **Q140.00** (\$25.45).

E3. Did the revenues contribute to meeting the cost of health activities? What percentage of project costs did income generation cover?

The revenues generated by the examples given in E2 above did not return to the project's budget but were retained as earnings and incentives for the persons providing the indicated services.

E4. Are there any lessons to be learned regarding household income generation that might be applicable to other PVO child survival projects or to **USAID's** support strategy?

- There is greater accountability in the management of the pharmacies with only two promoters handling the sales and only one of them with the key to the pharmacy.
- The incentives gained by the managers of the CORUs have been sufficient to maintain their interest in offering this community service.
- The community values the services provided by their own community members through **the pharmacies, CORUs and TBAs.**

E. Other

F1. Describe what sustainability-promoting activities were actually carried out by the PVO over the lifetime of the project.

- Regular training and follow-up of **TBA**s, accompanied with members of the MSP;
- Plans have been made for the sale of essential TBA supplies (soap, towel, razor blades, string for tying off the umbilical cord) at subsidized prices, followed by gradual decreases in subsidy;
- Training and follow-up of the managers of the CORUs and pharmacies;
- **Sale** of Incaparina, antibiotics, multivitamins and ORS at low-cost in the CORUs;

- Training-of-trainers for the TBA peer supervisors and the community health promoters; and
 - Progress. in joint planning for maternal and child health in **Totonicapán**, through interinstitutional and intersectorial coordination in the creation of the Annual Operational Plan for the Department of **Totonicapán**, supported by the MCH project of Project HOPE.
- F2. Indicate which aspects of the sustainability plan the PVO implemented satisfactorily, and which steps were never initiated. Identify any activities which were unplanned, but formed an important aspect of the **PVO's** sustainability effort.

Implementation of sustainability plan:

All of the items listed in **F1** above were well implemented by the project staff.

Steps planned but never initiated:

The DIP included the formation of health committees in each district. These were not formed due to competing priorities and the assessment that other organizations which already existed at the community level could serve many of the functions planned for the health committee.

The DIP anticipated training for auxiliary mayors in the collection and recording of vital statistics. This activity was transferred to the MCH project.

Unplanned activities:

Demonstrations of food preparation and consumption, using vitamin A-rich vegetables from participants' gardens, was not planned, but proved a very popular activity which uses locally-available resources.

The **CORUs** were not planned at the time the DIP was written, but have proven to be a very vital part of the project's sustainability plan in terms of increasing access to treatment for pneumonia and diarrhea and provision of nutritional and vitamin A supplements.

The strategy of neighborhood mother leaders was not in the DIP, but evolved as an effective strategy for the dissemination of information from mother-to-mother in Momostenango.

Training of MSP staff and community leaders in participatory educational methods was not foreseen in the DIP. This intervention was a lesson learned from the prior year's Final Evaluation of Vitamin A (CS VI) project and was an obvious need in this CS VII project which was addressed effectively.

F3. What qualitative data does the PVO have indicating a change in the sustainability potential of project benefits?

- In some districts, the MSP has become actively involved in the supervision of the TBA peer supervisors and managers of the CORUs;
- CORUs and pharmacies were planned to benefit their immediate communities, but in Momostenango, there is a wider demand for these services as evidenced by clients who come from neighboring communities;
- Community residents have asked the pharmacies to carry additional items, e.g., Alka Seltzer, Andrews Salts and other antacids, aspirin, deworming medicine and bandaids.
- Some CORU managers are also selling additional pharmaceuticals and hygiene supplies to increase their income.
- Some CORU managers have built a separate locale at their own cost to store supplies and to ~~see~~ patients.

EVALUATION TEAM

The members of the Evaluation Team are listed in the Acknowledgements at the beginning of this report.

PART III

DISCUSSION

DISCUSSION

This section will present an explanation for some of the findings reported in the previous sections. Overall conclusions are presented in the Summary at the beginning of this report.

Project HOPE began this Child Survival project in Guatemala with a number of strengths: as an organization, it has been working in Child Survival since 1985; it has a long and successful history of working in western Guatemala; and it had recently implemented two Child Survival projects and a Vitamin A project in the neighboring Departments of Quetzaltenango and San Marcos. Thus, it was reasonable to expect that Project HOPE and its counterparts could successfully apply all of this prior experience to a new Child Survival project in the Department of Totonicapan .

All of these advantages were then pitted against the known constraints which confronted Project HOPE at the beginning of this new project and the unexpected ones which occurred during it:

1. Socio-cultural-economic barriers

The Department of Totonicapan has a very high percentage of indigenous people of the Mayan culture, the majority of whom speak only **K'iché**. The vast majority of the mothers interviewed for the Final Evaluation Survey, 61.2% or almost two out of three, reported that they had never gone to school. As a result, many of them do not speak Spanish. Cultural impediments included certain manifestations of the “hot-cold” dichotomy; for example, immunizations are believed to be “warm” and therefore should only be given in the dry season,

2. Fear of outsiders

The Department of Totonicapan, and particularly its district of Santa Lucia la Reforma, was subject to an extremely violent civil war during the 1980s. After this bloody decade, the residents are not surprisingly fearful of outsiders. This fear extends to all foreigners and those Guatemalans who are associated with the government. During the field visits made in Santa Lucia for the Final Evaluation, the sight of the team was sometimes met by children who immediately ran the other way and adults who closed their doors.

3. Change in key project personnel

The first Project Director left in June 1992, just 10 months after the project began. An Interim Director managed the project until January 1993, when the current Director was hired. In addition to these changes in the top management position, there were changes in the Field Supervisor position, the key coordinator of all the field-based staff.

4. **MSP strike**

The MSP went on strike for four months, from January through April 1994, just at the point when many project activities were operating at high momentum. Given the nature of the project, in which Project HOPE is assisting the MSP in most activities, a strike causes delays, missed opportunities, loss of momentum and even regression in achievements to date.

Overall, this project was successful in meeting its objectives because it incorporated tested components from Project HOPE's other CS experiences, e.g., the **CORUs**, and because it was willing to experiment with new strategies and components to address some of the well-known and very serious impediments that stood in the way of improving health services and practices in the target area.

The particularly effective strategies included:

1. **Developing a cadre of TBA peer supervisors** - This new level of health worker was created from within **TBA**s -- a TBA peer supervisor is someone elected by her peers who could take on a leadership role and communicate effectively with the **TBA**s and project staff. During the Final Evaluation, many MSP staff and community leaders made a point in their interviews of praising the project's work with **TBA**s. In a population so distrustful of outsiders, the project was successful in communicating, gaining their trust and training, and the TBA peer supervisors were a critical key in this effort.
2. **Being responsible and accountable** - Due to the overall distrust of outsiders, it was imperative for the project staff to show up when they said they would and do what they said they were going to do.
3. **Addressing felt needs** - Three pertinent examples were: training CORU managers to identify and treat cases of pneumonia and to provide ORS and Incaparina for diarrhea; and the establishment of village-level pharmacies.
4. **Making the effort to communicate in K'iché** - Project staff did this by taking lessons in K'iche for the purposes of basic communication; offering K'ichC lessons to the MSP; developing the cadre of TBA peer supervisors; including K'ichC-speaking ability as a criterion for hiring field **staff**; hiring a staff person to work specifically on training in K'ichC and written and verbal translation between Spanish and K'iche; and asking local volunteers to translate when necessary.
5. **Concern for efficiency, sustainability and cost recovery** - These issues (see list in **II.C1**) were very much on the minds of the project staff as they implemented their activities. The AID, Child Survival Program is justifiably concerned about sustainability (witness the questions posed in Section II of this Evaluation Report) and has been since 1985. However, it has taken AID and **PVO**s and Ministries of Health a number of years to actually be able to articulate the subtleties of the concept of sustainability to their respective field staffs. In this

CSVII project in **Totonicapán**, the concern for sustainability was a clear and unifying paradigm for all of the activities undertaken, and the field staff were quite sensitive to and articulate in their understanding of it.

Even with the above strategies in place and functioning, there were some difficulties just too great to overcome. In the area of family planning, for example, the sensitivity of the subject and the church's influence presented constraints which overrode all of the above strategies to intervene and change behavior. Another example of unchanged behavior was in the area of exclusive breastfeeding, where communicating in groups, even in the security of friends and in **K'iché**, was not enough to address the underlying reasons why women choose to introduce other liquids to newborns within the first few months of life.

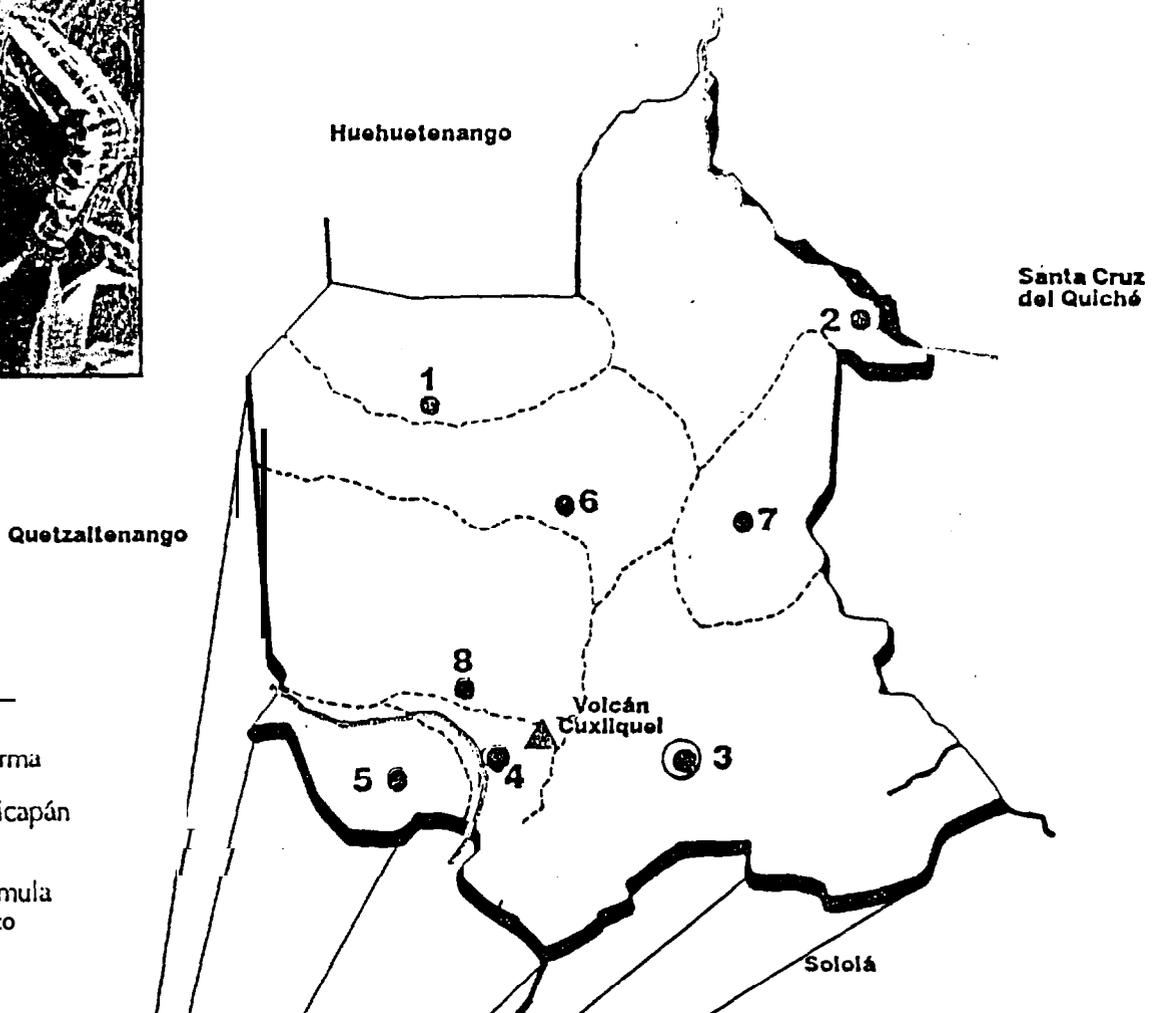
Overall, this project achieved major accomplishments -- defined as nearly reaching or exceeding the goals forecast in the DIP -- in all interventions, with the exceptions of exclusive breastfeeding and family planning. This level of achievement is a necessary prerequisite for developing the counterpart's commitment and making progress on sustainability strategies. Once commitment is obtained, then strategies can be developed, tested, revised and refined to seriously address the allocation of counterpart resources. As described in Part II of this report, this process has begun and there is tangible evidence, e.g., the AOP, already available after only three years of this CSVII project. However, even though the MOH is very appreciative of Project HOPE's contributions to improved performance in the health sector, it is not as yet really "taking charge" of the AOP process and is still too quick to point to financial and transportation limitations which can hinder further progress.

APPENDIX 1

MAP OF PROJECT AREA



TOTONICAPAN

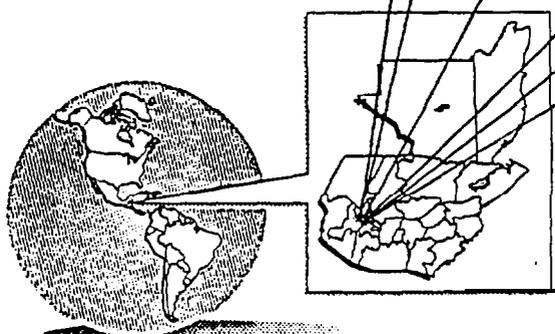


● CABECERA
MUNICIPIO

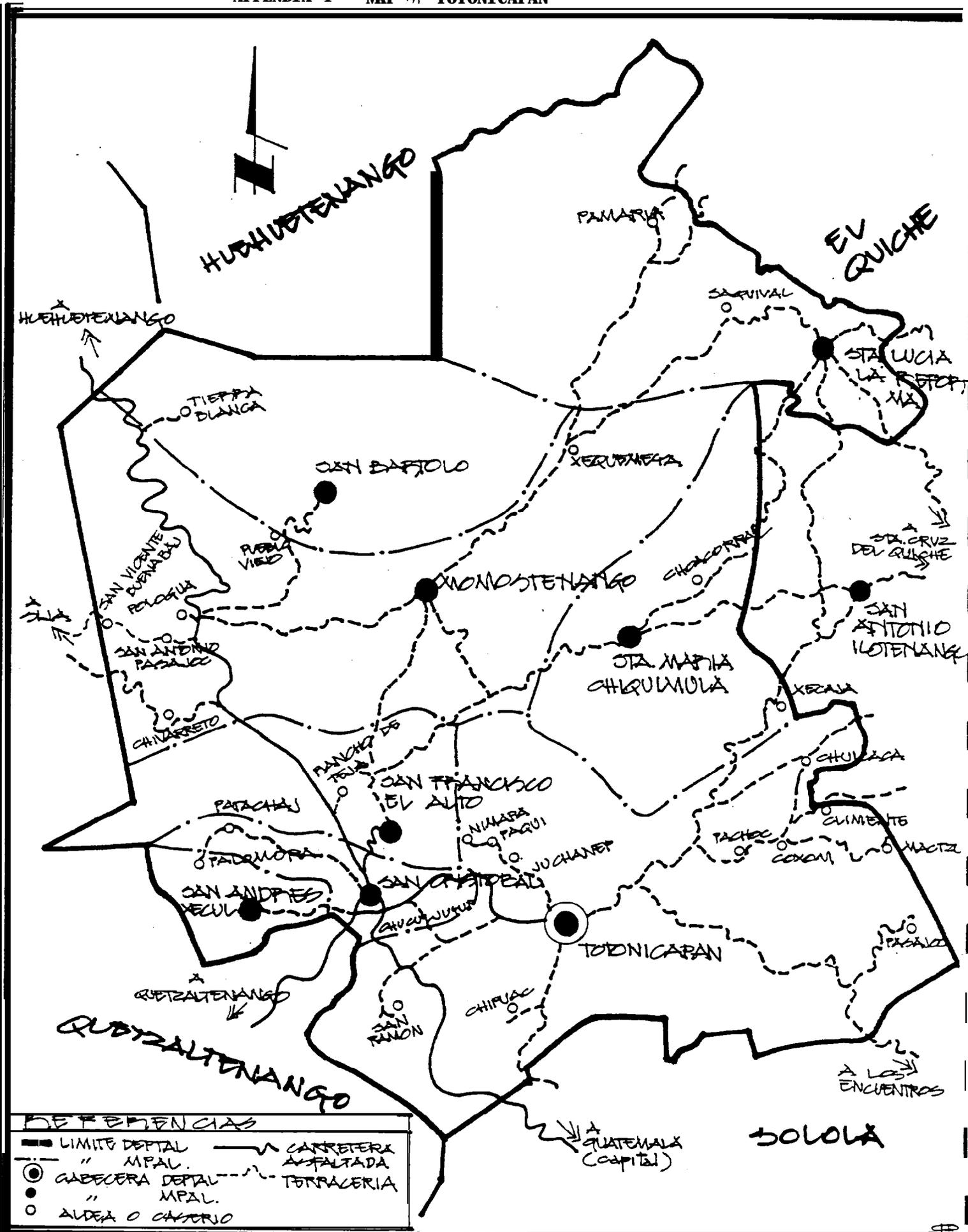
1. Sm Bartolo
2. Santa Lucía La Reforma
3. Totonicapán
4. San Cristóbal Totonicapán
5. San Andrés Xccul
6. Momostenango
7. Santa María Chiquimula
8. San Francisco El Alto

INFORMACION GENERAL

Ubicación: Zona del altiplano occidental de la República de Guatemala
Cabecera: Totonicapán
Límites:
Norte: Huehuetenango
Sur: Sololá
Este: El Quiché
Oeste: Quetzaltenango
Altura: 2,200 metros sobre el nivel del mar.



La mayor parte de sus cabeceras municipales están ubicadas en pequeños valles rodeados de montañas. A pesar de ser el tercer departamento más pequeño en extensión, ocupa el onceavo lugar en volumen poblacional.



REFERENCIAS

—	LIMITO DEPTAL	—	CARRETERA ASFALTADA
- - -	" MPAL.	- - -	TERRACERIA
●	CABECERA DEPTAL		
●	" MPAL.		
○	ALDEA O CASERIO		

APPENDIX 2

EVALUATION AND INTERVIEW SCHEDULE

APPENDIX 2
EVALUATION AND INTERVIEW SCHEDULE

August 15, 1994	Travel to Guatemala Initial team planning meeting
August 16, 1994	Team planning
August 17 - 22, 1994	Field visits and interviews with community representatives and counterparts (see charts on following pages)
August 23-24, 1994	Discussion of information obtained through field visits, interviews and the Final Evaluation KPC survey
August 25, 1994	Discussion of conclusions Presentation of results to counterparts
August 26, 1994	Presentation of results to USAID/Guatemala
August 28, 1994	Return to the USA

APPENDIX 2 (cont.)

INTERVIEWS WITH COUNTERPARTS				
FECHA	EQUIPO	COMUNIDAD	PERSONAS	
			CARGO	NOMBRE
8/17/94	I	Maczul	Enfermero Auxiliar	Ermidio Samuel de León Díaz
8/18/94	I	Santa Lucía	Supervisores MCH CARE Coordinador Fé y Alegría	Angel Antonio Toyon Carmen del Rosario Colop Jaime Romeo Ajtun Sontay
8/19/94	I	Sta. María Chiquimula	Auxiliar de Enfermería	Mariela Escobar
	I	Totonicapán	Servicios de Salud Totonicapán	Auxiliar de Enfermería Técnico en Salud Rural
8/19/94	II	Momostenango	Enfermera de Área y Jefe de Distrito	Edith Franke Maglis Hernández
8/22/94	II	Servicios de Salud Sta. María Chiquimula	Auxiliar de Enfermería Director Centro de Salud	Olivia Alvarado Dra. Perez
		Centro de Salud Momostenango Depto. Totonicapán Depto. Totonicapán	Director Centro de Salud Auxiliar de Enfermería Jefe de Área Enfermera de Área	Dr. Figueroa Maximiliana Pastor Dr. Jaime Rios Sra. Carol de Lima

APPENDIX 2 (cont.)

INTERVIEWS WITH COMMUNITY REPRESENTATIVES					
FECHA	EQUIPO	COMUNIDAD	PERSONAS		GRUPO QUE REPRESENTA
			CARGO	NOMBRE	
8/17/94	I	Maczul/Totonicapán	Regidor	Santiago García	
	II	Chimente/Totonicapán	Alcalde Auxiliar Director de Escuela Promotor de Salud Miembro de la Comunidad Grupo de 4 madres	Melchor Sapon Miguel Felipe Tzoc Rogelio Baquixt Abelino Calletano Ortíz Madres comunidad de Chimente	Autoridad máxima de la comunidad Autoridad en educación Líder en salud Presidente de comisión de desarrollo
8/18/94	I	Santa Lucía	Madre de familia Grupo focal de madres Comunitaria	Doria Julia Catarina Margarita Tzunux	Madres de la comunidad Comunidad
	II	Santa Ana/Momostenango	Promotor de Salud Director de Escuela Alcalde Auxiliar Grupo de Madres	Moises Ralac Oscar Itzop Ajanel	Líder de Salud Autoridad en educación Autoridad máxima Madres de la comunidad
		San José Sigüilá/Momostenango	Promotor de Salud Comadrona		Líder en Salud Comadronas de apoyo
8/19/94	I	Pamumus/Momostenango	Encargada UROC	Doña Teresa	
	II	Pamumus/Momostenango	Grupo de 4 promotores Promotor de Salud Grupo de Madres Grupo de Comadronas 2 Maestros 2 Madres	Teresa Noj de Xiloj	La comunidad Autoridad en Salud La comunidad Las comadronas Líderes en educación La comunidad
8/22/94	II	Xicaxul	Madre de Familia Director de la Escuela	Doña Teresa Ruben Gutierrez Solís	La comunidad Líder en educación

APPENDIX 3

KEY PROJECT INDICATORS

N or Expansion Project _____ Baseline or Final Survey Final

#	INDICATOR (submit results only for indicators that reflect project interventions)	RESULTS Numerator (N) Denominator (D) Percent (P)
1	<u>NUT: Initiation of Breastfeeding</u> - Percent of infants/children (less than 24 months) who were breast-fed within the first eight hours after birth.	N= 145 P= 49.5 D= 293
2	<u>NUT: Exclusive Breastfeeding</u> - Percent of infants under four months, who are being given only breast milk.	N= 25 P= 51 D= 49
3	<u>NUT: Introduction of Foods</u> - Percent of infants between five and nine months, who are being given solid or semi-solid foods.	N= 44 P= 56.4 D= 78
4	<u>NUT: Persistence of Breastfeeding</u> - Percent of children between 20 and 24 months, who are still breastfeeding (and being given solid/semi-solid foods).	N= 36 P= 75 D= 48
5	<u>CDD: Continued Breastfeeding</u> - Percent of infants/children with diarrhea in the past two weeks who were given the same amount or more breast-milk.	N= 77 P= 91.6 D= 84
6	<u>CDD: Continued Fluids</u> - Percent of infants/ children (less than 24 months) with diarrhea in the past two weeks who were given the same amount or more fluids other than breastmilk.	N= 61 P= 88.5 D= 69
7	<u>CDD: Continued Foods</u> - Percent of infants/ children (less than 24 months) with diarrhea in the past two weeks who were given the same amount or more food.	N= 34 P= 50.8 D= 67
8	<u>CDD: ORT Usage</u> - Percent of infants/children (less than 24 months) with diarrhea in the past two weeks who were treated with ORT.	N= 29 P= *33 D= 88
9	<u>Pneumonia Control: Medical Treatment</u> - Percent of mothers who sought medical treatment for infant/child (less than 24 months) with cough and rapid, difficult breathing in the past two weeks.	N= 32 P= 55.2 D= 58
10	<u>EPI: Access</u> - Percent of children 12 to 23 months who received DPT1.	N= 96 P= 72.2 D= 133
11	<u>EPI: Coverage</u> - Percent of children 12 to 23 months who received OPV3.	D= 133 P= 60.9
12	<u>EP): Measles Coverage</u> - Percent of children 12 to 23 months who received Measles vaccine.	N= 78 P= 58.6 D= 133
13	<u>EPI: Drop Out Rate</u> - Percent change between DPT1 and DPT3 doses [(DPT1-DPT3) ÷ DPT1] for children 12 to 23 months.	N= 17 P= 17.7 D= 96
14	<u>MC: Maternal Card</u> - Percent of mothers with a maternal card.	N= 95 P= 31.8 D= 299
15	<u>MC: Tetanus Toxoid Coverage (Card)</u> - Percent of mothers who received two doses of tetanus toxoid vaccine (card).	N= 73 P= 76 D= 96
16	<u>MC: Ante-Natal Visits (Card)</u> - Percent of mothers who had at least one ante-natal visit prior to the birth of the child (cud).	N= 24 P= 25 D= 96
17	<u>MC: Modern Contraceptive Usage</u> - Percent of mothers who desire no more children in the next two years, or are not sure, who are using a modern contraceptive method.	N= 6 P= 3.0 D= 202

COMMENTS: * Include 3 of others and refers only to variable "aguitas"