Mexico
SOLUCION TB

Detailed Implementation Plan

Tijuana, Mexicali

October 2004 – September 2008

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México *SOLUCION TB*
ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
BC	Baja California
BL	Baseline
CDC	Centers for Disease Control and Prevention
CHW	Community Health Worker
CSHGP	Child Survival and Health Grants Program
CS	Child Survival
CSSA	Child Survival Sustainability Assessment
CSTS	Child Survival Technical Support
DIP	Detailed Implementation Plan
DOTS	Directly Observed Therapy Short course
EDC	Education Development Center
EPI	Expanded Program of Immunization
FE	Final Evaluation
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
IO	International Office (PCI's HQ)
IPC	Interpersonal Communication
IR	Intermediate Result
ISESALUD	*Instituto de Servicios de Salud Publica del Estado de Baja California* (Public Health Service Institute for Baja California)
LLR	Lower Level Result
LOE	Level of Effort
LOP	Life of Project
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MOH	Ministry of Health
MOU	Memorandum of Understanding
MPH	Master's Degree of Public Health
MSC	*Medicina Social Comunitaria* (Social Community Medicine)
MTE	Midterm Evaluation
NGO	Non-Governmental Organization
NOM	*Norma Oficial Mexicana* (Mexican Official Norm)
NTP	National Tuberculosis Program
PAHO	Pan American Health Organization
PCI	Project Concern International
PLWHA	Persons Living With HIV/AIDS
PMP	Performance Monitoring Plan
PVO	Private Voluntary Organization
QIVC	Quality Improvement Verification Checklists
SA	Substance Abuse
SO	Strategic Objective

SOLUCION TB	Strengthening Observed therapy Linking Up Community-based Integrated Outreach Networks for TB control
SISPA	*Sistema de Informacion en Salud para Poblacion Abierta* (Health Information System for the General Population)
TB	Tuberculosis
TO	Technical Officer
UABC	*Universidad Autónoma de Baja California* (Autonomous University of Baja California)
UCSD	University of California, San Diego
USAID	United States Agency for International Development
WHO	World Health Organization

A. Executive Summary

Project Concern International (PCI) and their primary implementing partner, ISESALUD (*Instituto de Servicios de Salud en el Estado de Baja California* - the public sector health service) are implementing *SOLUCION TB* (**S**trengthening **O**bserved therapy **L**inking **U**p **C**ommunity-based **I**ntegrated **O**utreach **N**etworks for **TB** control) in the municipalities of Tijuana (population 1,619,655) and Mexicali (population 887,128), Baja California (BC), Mexico. These municipalities account for over 80% of the TB cases in the state. *SOLUCION TB* is a 4-year standard category 100% TB project, which began on October 1st, 2004 and ends on September 30th, 2008. The total budget for the project is $2,031,400 including $1,500,000 in USAID CSHGP funds, and a PVO cost share of $531,400, or 26% of the total. BC's population is estimated at 2,867,630 and the most recent estimates for BC indicate that it now has the highest TB morbidity rate in all of Mexico (48.13 per 100,000 in 2002).[1] Treatment success rate and adherence to TB treatment for new Pulmonary TB cases in BC is estimated at 58.4% (as of June 2004) in the municipalities of Tijuana and Mexicali. ISESALUD BC reports that in 2004 there were approximately 1,200 cases of TB of which approximately 200 died from the disease. Of these cases, 800 are part of ISESALUD's caseload in Tijuana and Mexicali. Human resources to monitor treatment intake through DOT services are insufficient (only four health workers in Tijuana and none in Mexicali) to address this problem.

The SOLUCION TB project will help ISESALUD increase treatment success rate from 58.4% to an estimated 85% by end of project. A total of 7,140 direct beneficiaries represent a total 1,190 TB patients who will receive DOT services from health resources provided through this project and an additional 5,950 contacts. An estimated 107,100 individuals will indirectly benefit from the project, by estimating that 15 new cases per year will be avoided through *SOLUCION TB.*

The goal of the *SOLUCION TB* project is to decrease TB morbidity and mortality by expanding implementation of community-based efforts, and achieving cure rates of 85% in two municipalities of northwest Mexico, which together contribute over 80% of TB cases in BC. Contributing to the attainment of this overall program goal is an expanded DOTS program in partnership with ISESALUD in BC and the creation of a demonstration model and strategy with potential for replication in other parts of Mexico. The program is designed to improve coordination, communication, documentation and reporting, and expand the network of community-based health workers providing services to the target population. The project's **Strategic Objective (SO**) is: *To increase TB treatment success rates and influence national TB efforts by developing and implementing a* SOLUCION TB *strategy of using* promotora/es *and DOTS health workers*. Contributing to the SO are three **Intermediate Results (IRs): IR1:** The "*SOLUCION TB*" model implemented in the departments of Mexicali and Tijuana in Baja California; **IR2:** Political commitment for national and state TB control program improved and sustained; and **IR3:** Quality utilization of TB DOTS components of local medical school curriculum increased. The project supports ISESALUD's goals for TB control by strengthening three areas of greatest need in their TB control program in Baja California: lack of sufficient trained human resources for service delivery, lack of communication infrastructure, and insufficient number of lab technicians. Through this partnership, the project directly addresses four of the five components of the DOTS strategy: (1) Sustained political commitment; (2) Access to quality-assured TB sputum microscopy; (3) Standardized short-course chemotherapy

[1] General Epidemiology Directorate of Mexico, www.epi.org.mx.

to all cases of TB under proper case management conditions, including direct observation of treatment; and (5) Recording and reporting system enabling outcome assessment. ISESALUD in BC is working with the National TB Program (NTP) to address the other key component of the strategy: (4) maintain an uninterrupted supply of quality-assured anti-TB drugs. The project builds on past and current successful collaboration projects between PCI and ISESALUD for the control and prevention of TB in the region.

Monitoring mechanisms will include Mexican health care information systems, such as SUIVE, EPI-TB, and community clinic patient registration systems as well as PCI project-specific (patient, promotora/es, key informant contacts) tracking systems, and performance evaluation tools. For ongoing program monitoring and periodic evaluations, *SOLUCION TB* will work closely with existing health information systems in the region. Clinics in Mexicali and Tijuana have established TB patient tracking systems that coordinate with the laboratory systems, the national infectious disease reporting system (SUIVE) and the national TB registry (EPI-TB). The tracking systems use a TB patient treatment card for overseeing treatment schedules, and a TB registry to monitor all TB patients through their full treatment cycle and follow-up testing. Information from the clinic TB registry is sent monthly to update the national TB registry (EPI-TB). *SOLUCION TB promotora/es* will coordinate with these clinic and national systems by conducting home visits, carrying out contact tracing, and helping to maintain the clinic's DOT treatment records. To follow its own patients' treatment, *SOLUCION TB* will also develop and maintain a database including *SOLUCION TB* patient information and comments relevant to program monitoring. At six-month intervals, national TB registry (EPI-TB) information for the Tijuana and Mexicali jurisdictions will be extracted and linked electronically to *SOLUCION TB* patient records. The combined information will be used for data validation, program monitoring and group analysis.

Since the original project design phase, and throughout proposal and DIP development, PCI and ISESALUD staff have been working in close collaboration with USAID/Mexico, in particular with Molly Lindner, Health Program Manager. Dr. Carlos Alberto Delgado, Chief, Prevention Department and Dr. Ma. Guadalupe Félix, Director of the BC State Program for Prevention and Control of Tuberculosis, ISESALUD, provided extensive input into DIP preparation, and coordinated strategic involvement of other key TB and HIV/AIDS staff from ISESALUD.

In Mexicali, the project will work with The School of Medicine of the Autonomous University of Baja California (UABC), Mexicali *(Facultad de Medicina Universidad Autónoma de Baja California)* and in Tijuana, with *Xochicalco*, a private medical school. Both universities will collaborate with SOLUCION TB in the promotion of DOTS in general and the SOLUCION TB DOT strategies and activities within the appropriate venues. The project will organize seminars on TB and DOT, and provide opportunities for medical students to experience and observe DOT activities in action.

The main authors of this DIP were Blanca Lomeli, MD, Project Director; Linda Morales, MA, Maternal and Child Health Technical Officer and the primary contact person at PVO headquarters for the project; Dr. Ma. Guadalupe Felix Herrera, ISESALUD TB Program Director; Clara Eder, Ph.D., Monitoring and Evaluation Technical Officer; Sue Howe, MPH, Data Manager/Analyst; Erandi Salgado, Regional Desk Officer for Latin America; and Janine Schooley, MPH, Vice President of Technical Services and Program Development.

Child Survival Grants Program Project Summary

DIP Submission: Jun-30-2005
PCI Mexico

General Project Information:

Cooperative Agreement Number:	**GHS-A-00-04-00013-0**
Backstop Person:	**Linda Morales**
USAID Mission Contact:	**Molly Linder**
Project Grant Cycle:	**20**
Project Start Date:	**2004-9-30**
Project End Date:	**2008-9-29**
Project Type:	**Standard**

Project Field Program Manager:

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First Name:	**Dra. Maria Guadalupe**
Last Name:	**Felix Herrera**
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City:	**Mexicali**
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Zip/Postal Code:	
Country	**Mexico**
Telephone:	
Fax:	
E-mail:	**bacilotb@hotmail.com**

Project Web Site:

Grant Funding Information:

USAID Funding:(US $): $1,500,000	**PVO match:(US $)** $531,400

Project Information:

Project Description:
The project goal is to decrease TB morbidity and mortality by expanding implementation of community-based prevention control efforts, achieving a treatment success rate of 85% and a reduction in treatment abandonment in Tijuana and Mexicali. There will be an expanded DOTS program in partnership with ISESALUD and the creation of a demonstration model and strategy. The project will dedicate 100% of its resources to improving TB control and prevention. Project will target an estimated 7140 direct beneficiaries, persons affected by TB and their contacts . An 107,100 persons are estimated to be indirect beneficiaries, as potential TB infections will be avoided during the four-year life of the project.
Project Location:
Tijuana and Mexicali, Baja California.

Project Partner Information:

Partner Name	Partner Type	USAID $ Allocated
ISESALUD	Collaborating Partner	(N.A)

Project Location/SubAreas Information: N/A

General Strategies Planned:

Advocacy on Health Policy
Strengthen Decentralized Health System

M&E Assessment Strategies:

Organizational Capacity Assessment with Local Partners
Community-based Monitoring Techniques
Participatory Evaluation Techniques (for mid-term or final evaluation)

Behavior Change & Communication (BCC) Strategies:

Interpersonal Communication
Peer Communication
Support Groups

Capacity Building Targets Planned:

PVO	Non-Govt Partners	Other Private Sector	Govt	Community

US HQ (CS unit) Field Office HQ CS Project Team	Local NGO	Private Providers	Dist. Health System Health Facility Staff	Health CBOs CHWs

Interventions:

Tuberculosis 100 **%**
** CHW Training
** HF Training
*** Facility based treatment/DOT
*** Monitoring/Supervision Surveillance
*** Advocacy/Policy
*** Linkages with HIV services
*** Community based care/DOT

Target Beneficiaries:

Number of Suspected TB Cases:	1,190
Population of Target Area:	2,506,783

Rapid Catch Indicators:

Indicator	Numerator	Denominator	Percentage	Confidence

				Interval
Percentage of children age 0-23 months who are underweight (-2 SD from the median weight-for-age, according to the WHO/NCHS reference population)	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 0-23 months whose births were attended by skilled health personnel	**0**	**0**	**0.0%**	**0.0**
Percentage of mothers of children age 0-23 months who received at least two tetanus toxoid injections before the birth of their youngest child	**0**	**0**	**0.0%**	**0.0**
Percentage of infants age 0-5 months who were exclusively breastfed in the last 24 hours	**0**	**0**	**0.0%**	**0.0**
Percentage of infants age 6-9 months receiving breastmilk and complementary foods	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 12-23 months who are fully vaccinated (against the five vaccine-preventable diseases) before the first birthday	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 12-23 months who received a measles vaccine	**0**	**0**	**0.0%**	**0.0**
Percentage of children age 0-23 months who slept under an insecticide-treated bednet the previous night (in malaria-risk areas only)	**0**	**0**	**0.0%**	**0.0**
Percentage of mothers who know at least two signs of childhood illness that indicate the need for treatment	**0**	**0**	**0.0%**	**0.0**

Percentage of sick children age 0-23 months who received increased fluids and continued feeding during an illness in the past two weeks	**0**	**0**	**0.0%**	**0.0**
Percentage of mothers of children age 0-23 months who cite at least two known ways of reducing the risk of HIV infection	**0**	**0**	**0.0%**	**0.0**
Percentage of mothers of children age 0-23 months who wash their hands with soap/ash before food preparation, before feeding children, after defecation, and after attending to a child who has defecated	**0**	**0**	**0.0%**	**0.0**
Percentage of new smear positive cases who were successfully treated	**173**	**296**	**58.4%**	**10.3**

Comments for Rapid Catch Indicator

The baseline data on the treatment success rate is for the Tijuana and Mexicali, Baja California, Mexico for the first six months of the year 2004 (Jan 1, 2004 to June 30, 2004)

TB Indicator			
Indicator	**Numerator**	**Denominator**	**Estimated Percentage**
% of new smear positive cases who were successfully treated	**0**	**0**	**0.0**

C. Description of the DIP Preparation Process

1. Project Start-Up Activities

Between September 2004 and March 2005, the *SOLUCION TB* Project Director, Project Coordinators, PCI International Office (IO) staff, and ISESALUD's TB Program Director for Baja California (BC) engaged in the following start-up activities:

- Core staff and key governmental and other stakeholder orientation and securing of commitment to the project
- Decisions made regarding project administration and logistics regarding administering project activities from Tijuana and Mexicali offices
- Recruitment and training of project *promotora/es* (including orientation to the project and co-infection issues)
- Negotiations regarding the MOU (see Annex 3), especially with respect to the phased-in incorporation of some of the *promotora/es* into the ISESALUD structure
- Discussions and decisions made regarding payment structure for the *promotora/es*
- Discussions and decisions made regarding criteria for inclusion of patients in the project, and
- The development of a Quality Improvement Manual (see Annex 11).

Several meetings were held with senior ISESALUD decision makers in both Mexicali and San Diego to orient them to the project and solicit their input.

In addition, planning began for DIP preparation, including review of other PCI DIPs, DIP lessons learned documents, international TB resources, and data collection instruments from other CSHGP recipients. Project staff also: improved the performance monitoring plan (PMP) (based on Child Survival Technical Support (CSTS) feedback, the TB indicators compendium, and numerous project staff discussions); strengthened relationships and discussed project progress and plans with San Diego County Health Department TB officials, key USAID Mission staff, and the CSHGP team; and established a timeline for the collection of quantitative and qualitative baseline data and the development of the DIP document. In February and March, all project staff participated in a two-day training concerning the epidemiological panorama of TB in BC, signs and symptoms of TB, and TB diagnosis and treatment. IO staff also participated in an all-day TB workshop on March 28th organized by UCSD and the San Diego County Health Department.

2. DIP Preparation

Between February and April 2005, six DIP preparation meetings were conducted with staff from PCI/Mexico, PCI-IO, and ISESALUD. During these meetings, staff further discussed and refined project indicators, incorporating them into updated revisions of the PMP, reviewed progress on routine and project-specific data collection, reflected on implications of the sustainability framework for the project, and updated the DIP document timeline. Also during this period, CSTS continued to provide suggestions on improving the PMP and on incorporating the CSSA framework into the project activities, PCI IO staff solicited suggestions from CSHGP, and both quantitative and qualitative assessments were completed (see Annex 2 for the Qualitative Report, and please refer to section E.1, below, for a Summary of the Baseline and

Other Assessments). In early March, project staff initiated DOT interventions. Staff from PCI IO, the field, and ISESALUD met with Ms. Molly Lindner, Health Program Manager, USAID/Mexico, and Mr. Edward Kadunc, Director, USAID/Mexico, to discuss project plans, visit project locations, and solicit their support and suggestions for the project. On March 31st, *SOLUCION TB* project staff planned and conducted a DIP workshop including 21 participants from ISESALUD, PCI, the San Diego County Health Department, and other stakeholders working in TB and HIV/AIDS in BC (see Annex 7.A and 7.B, DIP Agenda and Participant List). During the first week of April, the Project Manager and IO staff utilized the suggestions from participants' group work on data analysis, sustainability framework indicators, and the development of key strategies to further polish the PMP and develop the DIP document. Additional IO staff provided technical oversight and assistance in editing and finalizing the document. Approximately 95 days were spent on preparation and writing of the DIP.

3. Follow-up Activities

By September 2005, the project will have completed the following activities:

1. Adapt capacity assessment tools and facilitate an assessment and prioritization of capacity-building activities with the project's primary partner, ISESALUD. (August)
2. Follow through with the signing process of the MOU (due to the fact that this involves the signature of an agreement with an international organization, the BC government requires the involvement of the State congress, which prolongs this process). However, project staff have recently received the signed document. (Completed)
3. Coordinate with the four sub-committees formed during the DIP workshop to further develop concrete steps for strategies to work with private physicians, including key decision makers and medical school faculty, rehabilitation centers, and co-infected individuals, and incorporate these into the work plan. (July)
4. Refine sustainability indicators. (Completed)
5. Determine appropriate baseline values in each of the sustainability framework dimensions. (August)
6. Meet with key stakeholders to officially present the qualitative data and revised project plans, solicit their input on these plans, and incorporate their suggestions into the DIP presentation in June. (Completed)
7. Discuss and incorporate reviewers' comments and suggestions into the DIP presentation at the Mini-University and into the final DIP document. (Completed)
8. Conduct joint meetings with *promotora/es* from Tijuana and Mexicali to exchange ideas and lessons learned to date, as well as to review QIVC tools. (Completed)
9. Conduct additional qualitative research with at-risk populations and their service providers (rehabilitation centers) to solicit more in-depth perspectives on adherence factors, including gender issues. This will require no additional project funds. (July)

D. Revisions (from the Original Application)

For the following changes, please refer to Section E.3 Program Monitoring and Evaluation Plan, below.

A. Strategic Objective (SO) - The original results framework included two SOs. After suggestions from CSTS and numerous discussions between project staff, PCI decided to

collapse the two SOs into one: *"To increase TB treatment success rates and influence national TB efforts by developing and implementing a* SOLUCION TB *strategy of DOTS using community health worker promoters."*

B. IRs - The original SO 2— "To create a demonstration model and strategy for adaptation in other parts of Mexico"—was transformed into IR 1, "SOLUCION TB *model implemented in the departments of Mexicali and Tijuana in BC."* The original IR 2.1 became IR 2; and IR 2.2 became LLR 2.1, "SOLUCION TB *model approaches, tools and results documented and effectively shared."* In addition, the original IR 2.3—"Local medical school curricula on DOTS reviewed and improved"—was modified to become IR 3 after in-depth discussions with key stakeholders at the DIP workshop, and now reads "Quality utilization of TB DOTS components of existing local medical school curriculum increased." Participants felt that this would be a more appropriate result considering the status of current TB-related efforts at the medical school level. The original IR 1.3 became LLR 1.4, *"Organizational information and communication systems for DOTS improved and expanded."* And the original IR 1.4—"Quality laboratory control strategies expanded"—became LLR 1.3, and was modified to read *"Capacity of laboratories to conduct procedures improved."*

C. LLRs - The original IR 1.1 became LLR 1.1; IR 1.2 became LLR 1.2, *"Effective strategies for reaching marginalized, high risk target groups (People Living with HIV/AIDS (PLWHAs), substance abusers) developed and implemented."* A new LLR was added under IR 2; this became LLR2.2, *"Dialog about improving TB policy increased."* Two new LLRs were developed for the new IR3: LLR3.1, "Increased participation of medical school faculty in SOLUCION TB events," and LLR3.2, "Number of students participating in hands-on DOTS field work increased".

D. Indicators were refined from the original PMP based on in-depth discussions with ISESALUD staff, other project stakeholders, and numerous DIP reviewers. End of Project (EOP) targets were also adjusted to reflect new information from ISESALUD regarding definitions and baseline values.

E. During the DIP workshop, *SOLUCION TB* stakeholders identified and developed additional sustainability indicators according to the CSSA framework and incorporated them into the PMP. They are: Dimension 1: % of patients who receive 3 control baciloscopies for adequate TB control (per MOH TB norms); Dimension 2: % of held vs. planned meetings between project staff; Dimension 3: (a) Total number of *promotora/es* absorbed by INESALUD at EOP and (b) Number of social service clubs (Lions, Rotary) made aware of TB control needs and *SOLUCION TB* activities.

F. Based on reviewers' comments and subsequent sustainability framework exercises, project staff identified additional existing indicators to be considered as sustainability indicators, and categorized these by dimension and component in the new PMP.

E. Detailed Implementation Plan

1. Summary of Baseline and Other Assessments

This step in the process utilized a comprehensive methodology that included multiple information sources: NTP, WHO, other PVOs working in TB, Mexico's National Health Care data information system (SUIVE), EPI-TB, and the community *promotora/es* data collection

system already developed for ISESALUD's current program. Qualitative data from focus groups and key informant interviews were used to provide understanding of patient adherence factors influencing treatment abandonment and other behaviors. Data was analyzed and integrated into the baseline, included in the PMP, and incorporated into the planning process.

Baseline assessment activities included: strategic planning exercises for the design, development, modification, and adoption of data collection instruments and procedures; a data collection phase; and analysis of results obtained. The baseline process involved: collecting pre-intervention data for Tijuana and Mexicali; establishing initial values for process and outcome indicators; setting realistic targets for key indicators; establishing appropriate rigor for evaluation; and incorporating staff and stakeholders in the project design, monitoring, and evaluation process.

PCI and its ISESALUD partners engaged in multiple discussions regarding the indicators selected for this project. Changes were incorporated to ensure that all stakeholders understand what needs to be measured and to incorporate these measures into program improvement and sustainability. In addition, valuable feedback from three colleagues at CSTS was incorporated into the revised indicator list in the PMP. As described in Section D.5 (Revisions), sustainability indicators were identified and added to the revised PMP. After more detailed research into current trends and discussions with project stakeholders at the DIP Workshop, as well as PCI's and partners' experience in TB programming, the initially proposed targets were modified. (See Section E.3 - Program Monitoring and Evaluation Plan, below.)

The types, methodologies and findings of the baseline assessments are summarized below. For the report of complete results of the assessment, please see Annex 2.

For quantitative baseline data assessment, project staff obtained TB patient data for all new pulmonary TB (PTB) cases from January-June 2004. Successive cohorts will be compared against this baseline group throughout the Life of Project (LOP). During a working meeting with ISESALUD, project staff reviewed the TB program reporting and statistical analysis methodologies to confirm and/or modify PMP indicators, and to determine information needs for the project, as well as their sources. Rates of treatment success, abandonment, and DOT coverage will be provided by ISESALUD, via the existing nation-wide epidemiological database, known as EPI-TB. (See Section E.3 - Program Monitoring and Evaluation Plan, *Data Analysis* for a complete description of the cohorts to be followed during the LOP.)

Summary of Quantitative Results and Implications for the Project

Based upon baseline assessment results, the current treatment success rate for TB control, for new PTB cases is 58.4% (source: EPI TB). This, compared to an estimated 65% in the proposal, represents a 7% difference. The objective of the project is to increase treatment success rates to 85%. Given the number of patients to be enrolled in the project, the 85% objective remains realistic.

The percentage of patients enrolled in DOTS is officially reported at 97%, as EPI TB reports the percentage of patients who are *enrolled* in DOT-treatment, without assessing monthly adherence, as per ISESALUD's definition. In other words, patients who do not strictly adhere to treatment,

or who are not in actuality observed on a daily basis will still be counted as being under DOT. The project will utilize an estimation of strict adherence to the DOT schedule to measure this indicator. A baseline estimation of patients' enrollment in adherence to DOT is estimated to be the same as the success rate of 58.4%. The goal of the project is to enroll a minimum of 95% of *SOLUCION TB* group patients (including high-risk groups) into DOT, as stated in the National Tuberculosis Program (NTP) norms. The project estimates that additional human resources provided through *SOLUCION TB* will in fact facilitate ISESALUD's ability to increase DOT enrollment/adherence for all new PTB cases (as defined by ISESALUD's criteria), including those participating in *SOLUCION TB*, as well as others outside the project's scope. Patients outside the scope are: (1) non-PTB cases, (2) relapse patients, and (3) patients not treated under *SOLUCION TB's* project.

The main area of focus for ISESALUD's TB program is based on the need to expand DOT services to new TB cases through community-based *promotora/es*. The project will respond to this need through the provision of quality, trained-*promotora/es* and DOTS workers. Currently, ISESALUD Tijuana reports having only four *promotoras* for TB control to carry out home visits to seek out patients who fail to show up for treatment or medical check-ups. Mexicali currently does not have any *promotora/es* responsible for these duties. DOT tasks are performed by nurses and auxiliary nurses as part of their regular work schedule which includes several projects, including, but not limited to, TB control. *SOLUCION TB* will provide a total of 39 new staff, representing a significant expansion of DOT resources in both target municipalities. Four of these individuals will carry out administrative follow-up in order to enter data and conduct report analysis to ensure quality and timely reporting. The other personnel will carry out actual DOT activities for TB patients at ISESALUD clinics and at patients' homes. No NGOs outside of PCI currently participate in TB control activities in the region. *SOLUCION TB* plans to incorporate two NGOs into TB control and support activities. No constraints are anticipated in this area.

Summary of Qualitative Results and Implications for the Project

A series of focus groups, client surveys and key informant interviews were carried out in March 2005 in both Tijuana and Mexicali. A complete report of this research is attached as Annex 2.

A total of 18 interviews with clients were conducted by two external facilitators. Three focus groups and five key informant interviews were conducted as well. The purpose of this research was to identify interviewees' perceptions regarding: (a) relevant barriers to adherence; (b) attitudes and motivation towards TB, the TB program and services, and TB patients; and (c) to contrast assumptions made during the proposal preparation process in 2003. Results were validated in a series of meetings with staff and during the DIP workshop on March 31st, 2005.

	Focus Groups (FG)	Key Informants	Patients
Tijuana	1 FG with promoters 1 FG with physicians	4 interviews with TB managers and experts	1 interview with a former patient (who abandoned treatment) 8 interviews with current patients
Mexicali	1 FG with nurses 1 FG with physicians	3 interviews with TB	4 interviews with current patients

	Focus Groups (FG)	Key Informants	Patients
	1 Group interview with rehabilitation center staff	managers and experts	

External consultants were hired to facilitate the focus groups, key informant and patient interviews, as well as to conduct analysis and write reports. *SOLUCION TB* and ISESALUD staff coordinated the logistics and assisted with note-taking during the focus groups. Focus group guides and interviews were drafted by project staff and the external facilitators.

Relevant findings, listed below, have helped refine the strategies in this document and are currently being used by staff in the field to improve program design and implementation.

To organize findings, respondents' input and focus group data were classified into one of four dimensions or areas—'knowledge'; 'motivation'; 'practice' and 'work context'—based on I-STAR (Integrated System for Transformation, Assessment and Results), PCI's capacity-building methodology. Additionally, staff identified several elements that had already been included in the design of the project, and additional needs in one or more of the following areas relevant to the project: communication, stigma, policy/advocacy (see Annex 8).

Other information was identified as being outside the scope of the project, or not relevant to its implementation.

Common relevant findings across all groups interviewed include:

- Physicians are perceived to be at the center of TB control
- TB is perceived as a public health issue that needs control (no official data cited to support this perception)
- More resources are needed to address the TB problem (human resources for DOT, vehicles, fuel, etc.)
- Diagnoses of the disease, as well as supplies of medications are perceived to be sufficient, but major support and resources are needed to strengthen and improve DOT
- Patients with co-infection or with a reported addiction require more attention and are more prone to complications and/or treatment abandonment
- Health providers perceive women patients to be more likely to succeed given their 'inherent' motivation to be well for their children and families

Work context issues were common across all health providers: Not enough human resources exist to follow-up with TB patients. There is a shortage of vehicles (none in Mexicali are dedicated to DOT), and a limited number of other viable transportation options. Patients and providers agreed that in some instances, no water or paper cones/plastic cups are available at clinics for medication intake. In addition, there is a shortage of BCG vaccines (not to be addressed by *SOLUCION TB*, and not influencing the Pulmonary TB situation).

Summary of Qualitative Findings

	Knowledge	Motivation/Attitude	Practice
Physicians	**+ Lack of awareness of TB data** **+ Lack of awareness of health workers' contributions**	**+ Perceive TB patients to be 'difficult' (only negative adjectives were mentioned: 'poor', 'difficult', 'no life purpose', 'several issues involved', etc.)** **+ See themselves as the key element of TB control** **+ Others' contributions (nurses, health workers) are not acknowledged** **+ Low political commitment** **+ Private providers contribute to the problem, not the solution** **+ Perceive the need to improve community support** **+ Perceive work in rehab centers to be of 'low quality'** **+ Low tolerance for experts coming down to tell them what to do to improve TB control (citing previous studies being done with no solutions implemented)**	+ Not enough communication exists between physicians, nurses and other health workers + No DOT for patients who do not come back to the clinic + Ineffective case study activities + Insufficient resources for doing cultures + Insufficient resources (human and material) for doing baciloscopies
Nurses	**+Perception that additional support tools (DOTS flowchart) would improve service delivery and promote adherence** **+ No access to TB statistics**	**+ Recognize physicians as center of TB control, while recognizing the importance of their contribution** **+ Show high commitment to TB control** **+ Perception of 'low motivation' of health workers for TB control** **+ Perceive Rehab Centers to be key to TB control, although resource-limited**	+ Unable to follow-up with patients who fail to come back for DOT + Are perceived to not provide sufficient education/motivation to patients
Community Health Workers	**+ Don't know TB statistics** **+ Understand importance of adherence and supervision**	**+Recognize physicians as center of TB control** **+ Show high commitment to TB control** **+ Perceive patients as individuals who need support**	+ Carry out home visits when patients fail to show up
Patients	**+ Don't know about TB prior to diagnosis**	**+ Not aware of importance of treatment completion** **+ Clinics are resource-deprived** **+ No complaints about service provision** **+ Patients who experience shame due to stigma are less likely to adhere to treatment; - health workers need to be sensitive to this aspect of treatment** **+ Patients perceive DOT to be an issue of 'trust', and wish they were trusted more so that treatment could be given weekly, and then no daily observation would be required**	+ Don't come back for DOT therapy to clinic + With two exceptions, patients report no contact study activities being carried out + Take up to two buses and spend from 20-40 minutes to get to clinic, spending an average of $2 daily
Drug Rehab Center Staff	+ Some centers have not	+ Understand need for stricter regulations, but require more resources to comply	+ Have provided observation of treatment,

	Knowledge	Motivation/Attitude	Practice
	received TB patients + Others indicate that they used to control TB patients, but regulations are 'changing' making it more difficult	+ Perceive TB patients in rehab to lack 'will to live', and, given their addiction problem, not likely to be motivated to adhere to treatment	for TB patients in rehab, but do not acknowledge knowing what DOT is + Some patients who 'escape' from their facilities are not followed up on

No significant differences between Tijuana and Mexicali results were identified. One of the facilitators perceived that physicians in Mexicali had a slightly more positive outlook on TB issues and control of the disease. This might have been due to the fact that physicians in Tijuana were just coming out of a strike which ended only the day before the meeting, which may have negatively affected their attitudes.

Key Informant Interviews

Three women and two men, comprising the entire team in charge of TB at the state and jurisdiction levels, were selected to be interviewed. In addition, an ISESALUD physician who manages a high volume of TB patients and the ISESALUD staff member responsible for the DOTS *promotora/es* network were selected because of their extensive experience with TB control. All shared the perception that TB is a public health problem that requires attention, but they do not perceive TB rates to be increasing. They report that approximately 1,000 new cases per year are diagnosed in BC. They acknowledge that progress has been made, and that resources have been designated and allocated to TB control, but that more (staff, transportation, etc.) are still needed.

Specialists specify that a portion of patients—those living in extreme poverty, or suffering from additional diseases (AIDS, drug and other substance addictions)—require and should receive additional support, such as food baskets, home visits for DOT, transportation assistance, as well as psychological support. They recognize that establishing good rapport between the provider and patient is key to effective TB control. They also acknowledge the need to include drug rehabilitation centers to address an increasing TB-drug problem.

In order to improve TB control, inter-institutional coordination and increased political support are needed. Also, a 'case management approach' and ongoing training for staff would improve quality of services. Improvement of 'team work' and internal communication and coordination were also cited as required changes.

The need for increased public awareness and education was mentioned by TB managers and other individuals interviewed. After careful consideration, and as mentioned in the *SOLUCION TB* proposal, no public education campaigns will be carried out by the project in order to avoid increasing demands on an already stretched TB program. No public education or mass media activities will be implemented by ISESALUD until key aspects of the program are strengthened.

Summary of Results and Recommendations for the Project

As a result of the qualitative research data, and project staff and partner analysis which followed, recommendations were made to improve project implementation, enhance design and increase sustainability as follows:

Stigma/Motivation: Stigma was identified as a key issue requiring attention, and one that contributes to treatment abandonment. Stigma exists in health providers' perception of TB patients, and most likely affects the quality of the relationship with patients. Indicators for the quality of the 'intervention' were identified by project staff, and will be incorporated into training for health workers (CHWs and DOTS workers).

Patients need to be motivated to come back and stick to treatment schedules through 'warm attitudes' and quality services.

Stigma workshops that have been carried out by PCI on HIV/AIDS in this and other regions will be adapted to address the issue of stigma and Tuberculosis. Workshops on stigma will be offered to physicians, nurses and health workers (see section E.2, below).

Training: Trainings for *SOLUCION TB* health workers on the TB situation in Baja, TB control, DOTS, and other relevant issues were identified as key. Trainings for private physicians on TB, and ISESALUD-mandated TB control norms were identified as key. Workshops will be arranged in coordination with existing institutions: universities, SD County, medical associations and other potential venues. Trainings will include key elements of quality improvement, service provision, and the *SOLUCION TB intervention* (see section E.2, Training, below).

Tools and Supplies: Tools to enhance project implementation were identified, adapted and/or produced by project staff. A flow-chart on DOTS produced by the Ministry of Health will be made available to all project staff and clinics where *SOLUCION TB* is working. An educational brochure for patients on the importance of adhering to TB treatment, previously produced by PCI and ISESALUD, will be adapted and made available to all patients.

The importance of producing regular (bi-annual) statistical TB update reports to be shared with physicians and other health providers was discussed with project staff. All *SOLUCION TB* staff will receive caps, backpacks containing relevant materials/supplies, educational brochures, as well as water bottles and paper cones/plastic cups, as required for medication intake.

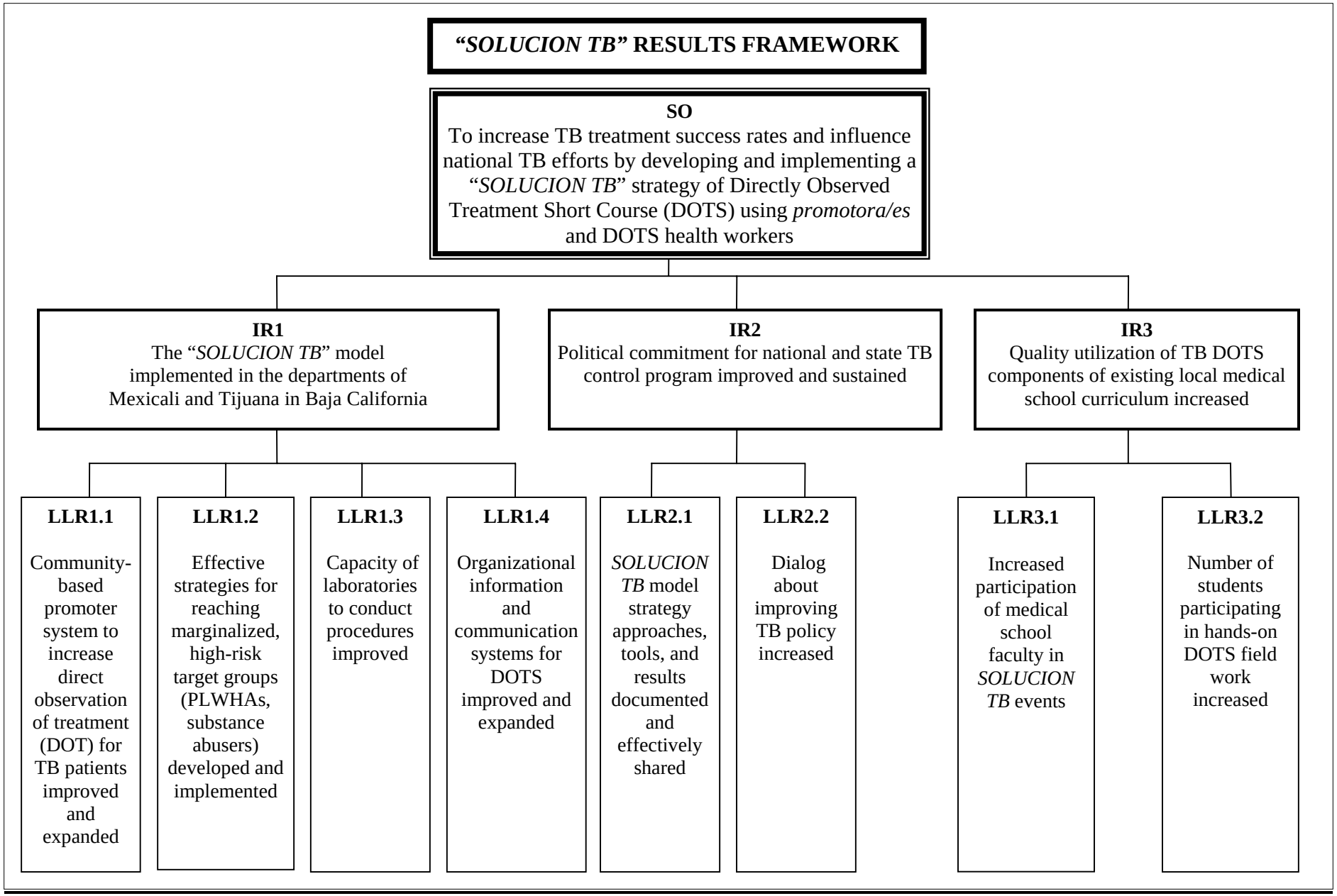
Policy/Advocacy: There was a generalized perception that increased political commitment would greatly benefit TB control. Project staff will take full advantage of the recently constituted HIV/TB State Committee by actively participating in meetings, and advocating for increased TB support.

An 'Advocacy Plan' will be developed by *SOLUCION TB* and ISESALUD staff, and will contain the following elements:

- Fact Sheets
- List of key legislators to be addressed (e.g. those participating in the health committees) in Tijuana and Mexicali under the Mayors' offices.

- Clear 'requests' needed to improve the TB situation in BC
- An adapted version of an HIV/TB Video previously produced by PCI (which will be shortened to emphasize TB, and the ways individuals can support the prevention and control efforts)

(See section E.2, Behavior Change and Communication, below.)


"SOLUCION TB" RESULTS FRAMEWORK
SO
To increase TB treatment success rates and influence national TB efforts by developing and implementing a "SOLUCION TB" strategy of Directly Observed Treatment Short Course (DOTS) using promotora/es and DOTS health workers
IR1
The "SOLUCION TB" model implemented in the departments of Mexicali and Tijuana in Baja California
IR2
Political commitment for national and state TB control program improved and sustained
IR3
Quality utilization of TB DOTS components of existing local medical school curriculum increased
LLR1.1
Community-based promoter system to increase direct observation of treatment (DOT) for TB patients improved and expanded
LLR1.2
Effective strategies for reaching marginalized, high-risk target groups (PLWHAs, substance abusers) developed and implemented
LLR1.3
Capacity of laboratories to conduct procedures improved
LLR1.4
Organizational information and communication systems for DOTS improved and expanded
LLR2.1
SOLUCION TB model strategy approaches, tools, and results documented and effectively shared
LLR2.2
Dialog about improving TB policy increased
LLR3.1
Increased participation of medical school faculty in SOLUCION TB events
LLR3.2
Number of students participating in hands-on DOTS field work increased

2. Program Description by Objective, Intervention and Activities

The goal of the *SOLUCION TB* project is to decrease TB morbidity and mortality by expanding implementation of community-based efforts, and achieving cure rates of 85% in two municipalities of northwest Mexico, which together contribute over 80% of TB cases in the state of BC. Contributing to the attainment of this overall program goal is an expanded DOTS program in partnership with ISESALUD in BC, and the creation of a demonstration model and strategy with potential for replication in other parts of Mexico. The program is designed to improve coordination, communication, documentation and reporting, and expand the network of community-based health workers providing services to the target population.

Fiscal years 2003 and 2004 were transition years for USAID/Mexico as the health program moves into a new strategic planning period.[2] This project will contribute to USAID's current objective number four—*Tuberculosis Prevention and Control*—and will respond to focus area number three—*Infectious Disease Prevention and Control*—of the proposed new six-year strategy. The overall objective of the USAID/Mexico program is to develop collaborative, sustainable development responses to shared problems and support activities that enable Mexico to transfer the best models of development beyond its borders. The *SOLUCION TB* project (with a major emphasis on working with ISESALUD to establish a sustainable demonstration model project for other areas of Mexico, and potentially beyond) is well in line with this objective. *SOLUCION TB* complements other USAID/Mexico efforts in the region.

Through this TB project, PCI and ISESALUD will respond to the Child Survival and Health Grants Program (CSHGP) Strategic Objective 5: *"Increased use of effective interventions to reduce the threat of infectious disease of major public health importance"*; and contribute towards CSHGP's IR 1: *"Increased quality of child and maternal health, and nutrition and infectious disease programs implemented by PVOs and their local partners"*, and IR 2: *"Increased sustainability of child and maternal health and nutrition and infectious disease programs/interventions initiated by PVOs and their partners."* Finally, the *SOLUCION TB* project corresponds perfectly to CSHGP's IR 3: *"Child and maternal health and nutrition and infectious disease program strategies, tools, and approaches developed/adapted, tested and applied."*

The project supports ISESALUD's goals for TB control by strengthening three areas of greatest need in their TB control program in BC: lack of sufficient trained human resources for service delivery, lack of communication infrastructure, and insufficient number of lab technicians. Through this partnership, the project directly addresses four of the five components of the DOTS strategy: (1) Sustained political commitment; (2) Access to quality-assured TB sputum microscopy; (3) Standardized short-course chemotherapy to all cases of TB under proper case management conditions, including direct observation of treatment; (4) Uninterrupted supply of quality-assured drugs by ensuring that DOTS *promatora/es* provide an on-going supply; and (5) Recording and reporting system enabling outcome assessment. ISESALUD in BC is working with the NTP to address the other key component of the strategy: maintain an uninterrupted supply of quality-assured anti-TB drugs. The project builds on past and current successful

[2] www.usaid.gov/plicy/budget/cbj2004/latin_america_caribbean/mexico.pdf

collaboration projects between PCI and ISESALUD for the control and prevention of TB in the region.

In 2004, under the current ISESALUD system in Mexicali and Tijuana, approximately 800 new PTB patients were reported as undergoing treatment using DOTS, representing approximately 80% of the estimated diagnosed patients. While ISESALUD EPI-TB reports a full 97% DOT coverage, supervision visits by management staff indicate that the actual percentage of patients undergoing DOT is much lower—estimated at 58.4%, because many patients do not adhere to DOT protocols. No monitoring of adherence currently exists as part of the ISESALUD system. *SOLUCION TB* will follow-up on treatment adherence by adding a weekly report format for all DOTS *promotora/es* and DOTS workers to complete. This report will provide information on patients' adherence as per daily/weekly supervised doses. This project will contribute to interrupting the chain of transmission by increasing the number of patients being cured under DOT, and thereby decreasing morbidity and mortality. Increased treatment completion under DOT will help avoid the potential creation of treatment failure and the increase of TB incidence and drug resistance. Specifically, the project will move current cure rates from an average of 58.4% to 85% for all ISESALUD patients in the two municipalities. The *SOLUCION TB* cohort will represent about 40% of all new PTB patients reported by ISESALUD (approximately 800 new PTB patients), and around 40% of all new PTB cases in Tijuana and Mexicali (from ISESALUD and other institutions). Although contacts will be referred to ISESALUD for testing and treatment as appropriate, new case detection strategies, other than referral of contacts, will not be included in this project. According to guidelines presented in the Technical Reference Materials and as discussed with the program design team, it was agreed that it would not be appropriate for this project to address new case detection strategies until DOTS coverage is significantly increased and the capacity to meet increased demand is improved.

PCI and ISESALUD staff are well aware of the challenges involved in providing TB services to a migrant population located along the U.S.'s busiest Mexico border crossing. Staff are also aware of the impact that internal migration has on the TB prevalence rates in BC. One of the project's main strategies for addressing the transborder issue will be to remain in close contact with S*OLUCION TB's* allies at the San Diego County Department of Health (who have been involved in numerous activities during this DIP process, and have confirmed their continuing support for the project), and with officials at ISESALUD in charge of the Bi-National card project. All Tijuana *SOLUCION TB* patients will receive the bi-national card, and *SOLUCION TB* staff will continue to coordinate with relevant San Diego and BC partners regarding future bi-national card project decisions which may impact the *SOLUCION TB* project beneficiaries. PCI will also continue collaborating with San Diego County's TB program on bi-national TB patient management (please see Annex 1A, p.2). Regarding the internal migration issue, PCI staff will continue working with ISESALUD to further analyze the implications of internal migration for TB control in BC, and explore mechanisms to better respond to this on-going challenge.

SOLUCION TB will focus heavily on true behavior change, improving access, quality, and training, with an emphasis on long-term capacity building. The strategies and activities related to these four areas cross cut all three IRs and can be summarized as follows:

Behavior Change and Communication (BCC)

Due to the nature of the DOTS approach, the entire project has a strong behavior change focus. In planning program strategies to maximize behavior change, project staff have drawn upon their extensive experience with U.S./Mexico border TB programs that has provided them with a solid understanding of local TB knowledge, attitudes, and practices, as well as broader cultural beliefs and practices affecting TB-related behaviors. The staff will continue to validate and further shape these programming strategies with results from recently conducted qualitative research as well as by incorporating new suggestions on improved strategies from working groups formulated at the DIP workshop. In addition, throughout the LOP, project staff will ensure that all behavior change strategies and messages are tailored to the specific informational and motivational needs of each target group, and consistent with those from the NTP and the BC State TB program.

The implications of the qualitative research on program design can be divided into three categories: **Communication, Political Support,** and **Stigma** (see p. 2 of Annex 8). Behavior change approaches appropriate for each target group are being designed to maximize the potential for long-term maintenance of the modified behavior by focusing on the most effective, low-cost channels available. Project staff have applied the BEHAVE framework to delineate behavior change strategies for each target group and to identify positive and negative influencing factors.

With respect to ***Communication*** and ***Political Support***, results confirmed the appropriateness of the project's proposed strategy of using "Positive Deviants" to disseminate messages to other physicians and increase the credibility and impact of those messages. Higher level medical specialists have a great influence on younger or less senior physicians, and could be utilized as role models. Formative research also validated the existence of barriers brought about by less than positive attitudes and lack of understanding and coordination on the part of health professional groups. Private physicians who refer complicated cases to ISESALUD (sometimes resulting from lack of adherence to DOT protocol) are one of the project's main targets within the health professional community, and will therefore be invited to participate in DOTS and stigma workshops designed for them. Twice a year in both Mexicali and Tijuana, the project will organize TB seminars for 25 physicians each, through medical association structures already in place. Project staff from ISESALUD and PCI have already established relationships with key medical associations and colleges. The project will recruit highly respected medical specialists who already believe in the importance and efficacy of the model ("Positive Deviants"), and build their capacity to serve as project spokespersons/key-note speakers featured during the seminars.

The qualitative research also suggested that official TB data was not being received by physicians treating patients, nor by individuals whose political positions could have an important influence on the project. In addition, other results indicated that physicians fail to recognize the value of the DOT *promotora/es* and the strategy itself. To address this issue, the project will disseminate fact-sheets every six months to legislative representatives, physicians, and other key members of the medical community; these fact-sheets will also be distributed at the bi-annual seminars for private physicians. These would include facts about TB in BC, the *SOLUCION TB* model strategy, frequently asked questions, and a list of suggested action items to support TB control. Follow-up activities will include e-mails and phone calls to clarify doubts regarding the

effectiveness of the DOTS *SOLUCION TB* approach and the value of using *promotora/es*, and to schedule periodic meetings to encourage physicians to refer patients to DOT service providers. During the DIP workshop, project stakeholders outlined additional activities for improving political support for DOTS strategies, including developing an advocacy agenda for working with key decision-makers and politicians, and involving the BC State Governor and the State Health Secretary to make specific commitments to ensure sustainability of the project outcomes.

Another finding that surfaced during qualitative research was the need to improve communication between *promotora/es*, nurses, and physicians; this was also determined to be an important element in increasing motivation, especially for *promotora/es*. To address this, during the DIP workshop project stakeholders recommended that once each semester the entire health unit would meet to discuss successes and challenges, and jointly resolve program planning issues. Because of the management burden required by all health center staff to engage in this activity (spending valuable time away from their patients), project staff felt that a compromise would be to rotate representatives from each of the health centers to participate in the semi-annual meetings or in the quarterly "Quality Circle" meetings (see section on "Quality", below).

Concerning reduction of ***Stigma***, project stakeholders identified the following strategies:

1. Sensitizing the physicians to the importance of patients' rights and providing first time quality of care to ensure that the patient will return for treatment, and that treatment will be continuous and complete to minimize drug resistance
2. Positioning TB in a different light, focusing on the fact that anyone can be infected, that many famous people have had the disease, and that it can be treated successfully
3. Using star patients and their success stories (see Annex 9 - TB Patient Success Stories)
4. Conducting workshops to address stigma towards TB patients, persons living with HIV/AIDS (PLWHA), and substance users (adapting approaches from similar workshops to reduce stigma toward PLWHAs), and
5. Disseminating existing IEC materials to reinforce anti-stigma messages

One of the main challenges of TB treatment and control programs all over the world, including those in BC, is that of patients not completing treatment schedules due to lack of knowledge and understanding of the consequences, lack of motivation to do so, and lack of access to observed therapy services. These facts were verified during the formative research process. Patients are not aware of TB until after their diagnoses. Some are also unaware of the treatment implications (6-9 month duration, the importance of not interrupting it once they feel better, etc.) even after their diagnoses. PCI will build upon its experiences and lessons learned over the past 25 years in successfully utilizing community-based outreach services for behavior change through its existing network of trained *promotora/es* who understand community members' needs and challenges, and who also have the necessary adult education and counseling techniques and skills to encourage behavior modification. DOTS workers and promoters will be well oriented on the qualitative research results and their implications for: behavior modification, as well as on basic TB control; diagnoses and treatment methodologies, including DOTS; and issues related to stigma.

In addition to expanding the number of well oriented NGO-*promotora/es* conducting DOTS services for TB patients, the project will expand the number of ISESALUD community-based

personnel dedicated to the project. PCI will work closely with ISESALUD in designing and implementing an effective, learning-oriented supervision system for trained DOTS workers. Quality Improvements Verification Checklists (QIVC) have been designed for project supervision and quality assurance, and will cover counseling interactions and behavior modification activities as well as the DOT intervention.

Project staff will utilize three additional approaches to impact behaviors at the direct beneficiary level (the patients):

I. Document and disseminate success stories featuring Positive Deviants (see Annex 9),
II. Provide individual counseling at the household level, focusing on: getting to know the family, the patients and their individual needs; ways to ensure treatment adherence; sensitizing patients and their families to their health rights; the importance of being available during home visits; and the patient's need to report travel plans and address changes in order for appropriate referrals to be given, and
III. Distribution of a comic book-style leaflet which will be used to reinforce the importance of continuing the complete cycle of treatment to be fully cured and reduce the spread of multi-drug resistant strains.

In addition, during the DIP workshop, participating *promotora/es* suggested that peer colleagues should receive some small tangible incentive to reward them for exceptional results. Some of their suggestions included discounts at local bakeries and taco stands. Project staff are exploring the feasibility of negotiating such discounts with an eye towards the possibility of sustaining these incentives after the EOP.

While the project will not engage in a media campaign, a number of existing communication interventions and materials (as mentioned earlier) will be utilized to: raise awareness about the need for prevention of the spread of TB among high-risk groups (such as individuals in rehabilitation centers and HIV/TB co-infected individuals); to reduce stigma; and to minimize misinformation about the disease and infection risks. The project will utilize existing materials, such as PCI's comic book-style leaflet, print materials developed by the NTP (such as MOH's DOTS Guidelines booklet and the DOTS Nurses Guide), and STOP TB materials which have been adapted by ISESALUD. These print materials will be disseminated as appropriate at all *SOLUCION TB* informational and capacity-building events. PCI has also developed a TB video which will be adapted for use with specific audiences, such as with key decision-makers with whom the project intends to increase participation in TB policy-influencing activities.

The MOH has identified "Stars for the Cause", including: Enriqueta (Queta) Basilio and Magaly Yanez-Canchola, both athletes from BC. Ms. Basilio, a famous athlete who participated in the 1968 Olympics in Mexico, has become the STOP TB ambassador. Ms. Yanez-Canchola is a young athlete recognized as the State Athlete of the Year for BC, who agreed to become the ambassador for the HIV/TB Substance Abuse committee established in December 2004. To leverage their cause, *SOLUCION TB* will coordinate with ISESALUD to have the star athletes speak to raise awareness and reduce stigma.

The following chart describes key research results for each target audience, and identifies appropriate behavior change interventions which will contribute to sustaining behaviors.

Behavior Change to be Sustained	Target Group	Research Results	BC Intervention
Patients complete treatment (reduce # of drop-outs)	Community/ Patients/ *Promotora/es*	Patients lack info on TB, especially on implications of interrupted, failed, prolonged Tx Low motivation	Dissemination of positive deviant success stories; use of star athletes to promote the cause. Improved and increased Interpersonal Communication (IPC)/Counseling taking into account the holistic needs/issues of the patient and their families, the need for one-on-one patient education and counseling, counseling on side effects and management of complications due to drug interactions, and sensitizing patients on their rights Include understanding of epidemiology-based treatment of TB in training for *promotora/es* Distribution of PCI designed comic book-style leaflet

Behavior Change to be Sustained	Target Group	Research Results	BC Intervention
Physicians reduce stigma and improve quality of care	Physicians Specialists/ Experts	Many physicians stigmatize patients with the disease (patients may be treated poorly)	Position TB differently: use examples of famous people who have had the disease (Nelson Mandela, Eleanor Roosevelt, Juana Ines de la Cruz, etc.) Use case histories of real people and positive deviants Conduct training sessions to reduce physicians' stigma vs. patients w/ TB, HIV/AIDS, &/or substance users (adapt from HIV/AIDS workshops) Sensitize physicians on patients rights Disseminate written materials (comics)
Promotora/es sense increased morale and self-esteem *Promotora/es* increase drop-out tracing	*Promotora/es*	Low motivation due to feelings that they are not appreciated by medical community Limited time and motivation for drop-out tracing	Quality Circle meetings, recognition ceremonies and certificates, refresher training opportunities (in which staff are apprised of updated TB situational data), provision of caps and backpacks with supplies, potential sustainable incentives (discounts at local businesses)
Communications/ coordination between *promotora/es*, nurses and physicians is improved	DOT provider community (*promotora/es*, nurses, physicians)	Insufficient and poor quality of communication between medical personnel	Joint meetings at which *promotora/es* are recognized for their successes, problems are jointly resolved, and focus is on improving quality (Quality Circles)

Behavior Change to be Sustained	Target Group	Research Results	BC Intervention
Physicians will promote the value of "DOTS" strategy and work done by *promotora/es*	Private Physicians	Physicians are unaware of value of work of *promotora/es*; limited recognition of DOTS as an effective strategy (belief that DOT is not effective due to their perception that strategy is not being uniformly and correctly applied); perception that medical community is not receiving accurate TB data	Quality Circle meetings; Physicians' seminars, using positive deviant physicians and *promotora/es* as role models and project spokespersons; follow-on meetings to discuss project support; increase awareness of the vital roles and responsibilities of other health workers in the DOTS system; increase understanding of epidemiological aspects of TB in the region; distribute fact-sheets with updated TB data and suggested action items
Policymakers/key decision-makers perceive a greater importance of supporting TB efforts	Policymakers and MOH key decision-makers	Medical community senses low motivation and political support from upper echelons	Create advocacy agenda involving State Governor and State MOH in the cause; distribute fact-sheets with updated TB data and suggested action items Adapt & disseminate TB video
At-risk populations will reduce stigma and understand prevention and infection risks; staff will be motivated to appropriately support DOT efforts	Patients and service providers of rehab centers; co-infected HIV/TB patients	Need more information – project staff will conduct additional qualitative research with these groups	Initial ideas: Targeted informational efforts, including distribution of appropriate print materials, and capacity-building of staff; provide incentives to rehab centers for improved care for TB patients, including water supplies, glasses, gasoline for following up on TB patients who have left the centers; low-cost aesthetic improvements to areas

Behavior Change to be Sustained	Target Group	Research Results	BC Intervention
			where TB patients reside; develop a guide for counseling of co-infected TB patients (based on HIV/AIDS approaches and one-on-one patient education)

Quality

The DOTS approach is designed to ensure quality in treatment compliance and provide wider access to medications and health services. Since the BC State TB Prevention and Control Program follows the Mexican NTP norms and protocols, which are based on international guidelines regarding DOTS strategies, by adhering to these protocols the project will implement high quality interventions and provide diagnosed patients with greater access to complete treatment. By ensuring that *promotora/es* and/or DOTS workers are well trained, applying lessons learned from current successful TB efforts, and utilizing state of the art techniques and client-centered approaches to motivate patients to complete treatment, the project will enhance the quality of their efforts. As demonstrated by their continued success in health outreach and behavior change activities during 25 years of service, PCI's *promotora/es* have a long history of focusing on improving quality in order to achieve results. This intentional focus on quality will be transmitted to new project staff to help them in their DOT activities.

As previously mentioned, project staff will participate in "quality circles," a system by which the project coordinator, community coordinator, designated ISESALUD representative, and one or two *promotora/es* and/or ISESALUD-based DOTS personnel (*promotora/es* will participate on a rotating basis to ensure wide participation) will meet on a quarterly basis to review performance indicators, review data and discuss relevant critical incidents (see also section E.3 - Program Monitoring and Evaluation Plan). Corrective measures will be proposed and implemented as needed. Monthly quality circle meetings reports will be completed and submitted to the Project coordinators and ISESALUD district-level TB control staff. Quality Circle meetings take place at the jurisdiction level and will provide an opportunity for all levels of staff to improve their communication and coordination, and for *promotora/es* to be recognized (with certificates and other low-cost incentives) for their exceptional work, thereby improving their own self-esteem while increasing their value as perceived by physicians and nurses. Refresher training followed by on-going supervision and mentoring will also focus on improving communication and maintaining staff morale. Another mechanism to help increase motivation of health personnel is the recent development and dissemination of a comprehensive, practical guide to improving quality at all project levels—*Quality Improvement Manual* - see Annex 11—in which the quality circles concept, quality improvement verification checklists (QIVCs), and responsibilities of project staff are clearly delineated.

Access

Medications will be provided by ISESALUD through their existing supply system. TB drugs

will be delivered to the Mexicali and Tijuana District control program, and assigned to project personnel (the community-based coordinator for PCI *promotoras/es*, or to the respective health unit as appropriate) based on whether this corresponds to a home visit or a health unit-affiliated patient. PCI *promotora/es* will be provided with medications on a weekly basis by the Community Coordinator. They will receive the medications prescribed to each patient according to their ISESALUD physician's prescription, distribute data-collection forms, and collect forms for the previous week. ISESALUD staff have confirmed that no current shortages exist of TB medications, and that sufficient stocks will be available through the national-level MOH assuring coverage for all additional patients to be enrolled in the project.

Promotora/es will be equipped with one backpack at the beginning of the project, a water container, paper cones, and all the necessary forms for reporting. Medication for home-visit patients will be provided weekly to *promotora/es* or DOT worker in charge; and for those who are affiliated with and/or expected to be supervised at a health unit, medication will be available at the health center on a daily basis, following ISESALUD's drug supply and controls. During formative research, staff became aware of the fact that, sometimes, patients at home or at clinics where *promotora/es* will be assigned have no access to water or cups required for medication intake.

A key element of the DOT program is adequate transportation for treatment observation for both patients and health providers. Currently, ISESALUD has two vehicles available in Tijuana dedicated to TB control. No vehicles are available in Mexicali at ISESALUD. A new vehicle recently donated by USAID will be utilized by both state-level staff for supervision of TB program activities and by the Tijuana jurisdiction for DOT; additional vehicles are necessary as determined by ISESALUD during the proposal preparation process and current DIP discussions. Project staff understanding of post-award discussions indicated that the purchase of four used vehicles to be dedicated to DOT was disallowed by USAID. PCI has initiated attempts to obtain resources or donations from other funders, which have been partially successful in that one used vehicle has been secured to date for the Mexicali jurisdiction. The project will seek to obtain an additional three used vehicles to be exclusively dedicated to DOTS activities (two for ISESALUD, and one for PCI to use in supervision of DOT activities and to supplement public transportation for NGO *promotora/es*).

Another barrier to DOT implementation, frequently raised by participants involved in the formative research, is the lack of fuel or resources to buy gasoline for existing vehicles to conduct much needed home and supervision visits. Some resources within the budget have been designated to supplement ISESALUD's transportation and fuel needs.

Training Strategy

Technical intervention areas will be implemented, coordinated and supervised by ISESALUD's personnel in charge of TB control at the State and District levels. PCI will contribute its expertise in adult education, community mobilization, quality assurance, and learning methodologies to complement and ensure an effective training program and adequate implementation. TB training will closely follow the National and State TB Control Plans for training health workers and use existing training curricula. A training session on adult interactive learning approaches, quality improvement methodologies and learning, based on

Freedom from Hunger's dialogue-based education methodology, will be added to the existing two-day training curricula. Training will be linked to other elements required for capacity building, including: effective recruitment; clarification of expectations, roles and responsibilities; development and adaptation of appropriate training materials and job aides; knowledge and skill transfer; ongoing supportive supervision and motivation for actual application of new knowledge and skills; monitoring and refresher trainings; ongoing technical assistance and on-the-job training; modeling; and effective methods of adult learning, including games, case studies, role playing, site visits, and facilitation of dialogue. These adult learning approaches will be adapted to ensure effective application of DOTS by the project's *promotora/es* and/or DOTS workers.

During training events, project staff will incorporate case studies based on lessons learned (including effective ways to locate hard-to-reach patients, effective patient education and motivation mechanisms, and effective case-management, among others) from PCI's existing and past TB control and training programs in BC, in collaboration with ISESALUD, and San Diego County's TB Control Program for bi-national patients. Training of *promotora/es* and DOTS workers will be done jointly by PCI and ISESALUD, in Tijuana and Mexicali, to ensure standardization of message and training methodologies.

The following section outlines the IR-specific strategies and activities.

Strategic Objective (SO): To Increase TB Treatment Success Rates and Influence National TB Efforts by Developing and Implementing a *SOLUCION TB* Strategy of Directly Observed Treatment Short Course (DOTS) using *Promotora/es* and DOTS Health Workers

IRI: The "*SOLUCION TB*" Model Implemented in the Departments of Mexicali and Tijuana in Baja California

LLR1.1: Community-Based* "Promotora/es *System" to Increase DOT for TB Patients Improved and Expanded

Recruitment Training and Deployment of DOTS Promotora/es and Workers

This is the most important intervention for the SOLUCION TB project, as it represents the main area of need for ISESALUD, and, accordingly, around 90% of the project's resources will be devoted to this area.

In coordination with ISESALUD's TB control program, the project will assist in expanding and strengthening the DOTS program at the district and community level by increasing the number of trained *promotora/es* (health workers who are working for PCI and other NGOs, and are paid a stipend based on their level of effort) and DOTS workers (ISESALUD staff also observing patients, and performing supervising duties for the project, and paid a regular salary). The project will expand the number of PCI *promotora/es* working in DOTS, and the number of NGOs providing services to new TB cases in coordination with ISESALUD. The project will increase the number of ISESALUD health personnel trained and working in DOTS as well.

Even though PCI's *promotora/es* model has traditionally been a volunteer model, the project will attempt to diminish inequities between ISESALUD DOTS workers and *promotora/es* staff, as

well as gender inequities (since almost all of the *promotora/es* are women), by compensating them for their DOTS work. The program will therefore include training of *promotora/es* who will receive monthly stipends of $320 to cover transportation and other costs related to their effort. Payments will be averaged by month to facilitate logistics and support the establishment of a standardized model of intervention. These *promotora/es* and/or DOTS workers will be recruited to serve as treatment monitors who will be responsible for delivering medication to patients and observing them while they take it. Project staff will make an effort to ask most patients to come to an assigned health unit or clinic, where *promotora/es* will be available to observe treatment and carry out home visits as necessary. The project design team fully recognizes the challenges of sustaining such a system once project funds have ended, and will continue strategizing with ISESALUD to ensure sustainability and as smooth a transition as possible in transferring these trained and experienced individuals into ongoing ISESALUD salary structures. To this end, ISESALUD has already made an initial commitment to absorb six of the DOTS workers in Mexicali and Tijuana into their structure during years 3 and 4.

Baja California's State TB Control Program follows Mexico's National Norm NOM-006-SSA2-93 that calls for inter-sectoral collaboration where partnerships with NGOs are included. The National TB control program mentions *"social participation"* and *"coordination and collaboration"* as two strategic components of the program. PCI and ISESALUD have determined that due to the existing trends in TB, with more co-infection cases and substance abuse (alcohol and other drugs) being reported, the two new NGOs that will be invited to participate in the project will be selected from an existing pool of Drug Rehabilitation Centers that respond to a strict criteria defined by ISESALUD in terms of management and control of TB patients. ISESALUD is currently undergoing a revision of their norms and protocols for working with these types of centers.

An agreement between PCI and the NGOs (Drug Rehab Centers) will be established. As part of the agreement, each NGO will learn about TB and its control, and transport patients to health clinics to receive medical care and lab tests as needed, carrying out referrals for potential contacts, etc. They will receive a monthly stipend based on their performance and adherence to the agreement terms. PCI will work with and strengthen the existing supervision systems of participating NGOs and avoid setting up a parallel structure of additional costly supervisors.

Assignment of Patients

ISESALUD and PCI staff have determined that a percentage of new TB cases (as per MOH-ISESALUD definitions) will be enrolled in the *SOLUCION TB* project. The number of patients in Tijuana and Mexicali, as well as the number of health workers assigned, will be proportionate to the number of patients per jurisdiction and the degree of difficulty in access, treatment abandonment, and other factors. As such, a total of 25 *promotora/es* and DOT workers (including nine from PCI and 16 from ISESALUD) will be assigned to Tijuana, and 13 to Mexicali (from ISESALUD). An additional DOTS worker assigned to the ISESALUD Baja California state level office will conduct administrative follow-up for SOLUCION TB. Other criteria for inclusion of patients into this project, in addition to being new cases include: geographic location of the patient, access to a health clinic or unit, and the degree to which the patient is considered to be 'at risk' for treatment abandonment. Small cohorts of patients will, in addition, meet one of the following criteria: (1) the presence of HIV co-infection, or (2) patient is

undering alcohol or drug rehabilitation..

The SOLUCION TB project will enroll an additional 170 patients in DOT treatment for the first year, 340 patients during the second year, 340 in the third year, and 340 in the fourth year, including a geographic distribution of approximately 65% from Tijuana and 35% from Mexicali. SOLUCION TB patients represent an estimated 40% of the total number of new PTB cases in Tijuana and Mexicali for ISESALUD (around 800 patients per year). (See Section E.3 - Program Monitoring and Evaluation Plan, Data Analysis for a complete description of how these patients will be followed in cohorts during the LOP.) An 85% treatment success rate of SOLUCION TB patients will represent an estimated increase of 30% over ISESALUD's current 58.4% (for an expected result of 85% treatment success rate or higher by EOP).

ISESALUD *promotora/es* and DOTS workers will be assigned to a specific health clinic or health center, where they will coordinate directly with the physician or nurse in charge of the clinic. Overall coordination and technical supervision within ISESALUD will be provided by ISESALUD's TB Program Director for BC. The PCI Community Coordinator will serve as liaison between ISESALUD and PCI for PCI-assigned *promotora/es*, for coordination, patient-assignment, supply of medications, and reporting purposes. PCI will apply lessons learned by *promotora/es* from its current TB program who do not wear any attire that identifies them as a health worker. This approach will enable them to escape detection by other community members and thereby help diminish the risk of stigmatization of the TB patient.

In order to promote and strengthen sustainability, *promotora/es* and DOTS workers will encourage patients to visit health clinics for DOT. This will increase patients' empowerment and decrease the burden on the health system because patients are taking responsibility for seeking out medical services, and less resources are needed for clinic observations as opposed to home visits. Patients who do not or cannot go to the clinic will be visited by *promotora/es* at home for DOT. Other patients who cannot be observed at the clinic, and those who are considered 'high risk' for treatment abandonment, will be visited by *SOLUCION TB promotora/es* at home. Those considered 'at high risk' may include patients living in extreme poverty, patients enrolled in or recently released from a drug-rehabilitation facility, and others. PCI *promotora/es* in Tijuana will be assigned to this type of patient throughout the project, given their prior experience and BCC skills. Patients assigned to be part of the *SOLUCION TB* group will be identified by project staff by a specific codification system to be used in reports and forms.

The selection of health units or clinics to participate in this project will be done according to the volume of TB patients they manage and to the level of accessibility related to specific communities or areas where most patients live. As such, different clinics or health units may participate in the project at different stages in the LOP. Representatives from all health units have been informed by ISESALUD staff of the *SOLUCION TB* project, its goals, objectives, and activities. Monthly staff meetings are currently held at ISESALUD by the program in the project's selected jurisdictions. These venues will be used to provide staff with relevant project updates.

LLR 1.2 Effective Strategies for Reaching Marginalized, High-Risk Target Groups (PLWHAs, Substance Abusers) Developed and Implemented

Two vulnerable and 'at risk' groups have been selected by project staff to receive specialized services to ensure access to medication under the DOT strategy: substance abusers in rehabilitation, and PLWHA. Due to recent changes in the prison system, and the possibility that access to prisons could be denied in the middle of a treatment schedule, PCI and ISESALUD staff decided to not include prison inmates as one of the high risk groups to participate in this project. As part of its mandate, ISESALUD already carries out TB control activities at local prisons.

Based on their experience, ISESALUD staff estimate that approximately 40% of TB patients are also suffering from complications due to substance addiction (including alcohol and other drugs). PCI has experience collaborating with and supporting drug-rehabilitation centers (NGOs), as well as HIV/AIDS service providers. Private rehabilitation centers currently exist in both jurisdictions. ISESALUD is undergoing a process of revision of protocols and supervisory systems to which these centers will adhere, according to relevant norms and regulations. Some of the centers have had experience managing rehabilitation patients with TB. PCI, ISESALUD, and the selected centers will agree on an enrollment, DOT and supervision system for TB-rehabilitation patients. Center staff, who will carry out contact referrals and provide transportation for medical services for TB patients, will receive the necessary training. ISESALUD, in collaboration with PCI, will designate existing *promotora/es* to ensure management of TB patients at participating centers.

During the formative research process, interviews were conducted with staff from rehabilitation centers. Barriers to access identified were almost identical to others identified, with the exception that some service providers had no experience dealing with TB patients at all. Relevant barriers included the difficulties in following-up patients for DOT after their drug-rehabilitation program ends (usually after 3 months), which is shorter than the required TB treatment (6-9 months). Alternatives for addressing this issue will be discussed in more detail with project staff and managers of the rehab centers (NGOs) to be included in this project, and may include close coordination with family members of the patients to ensure either attendance at health clinics or home visits by project staff. The project will work with at least one center in Tijuana and one in Mexicali.

Based on EPI-TB data, among TB patients, approximately 5.8% are also co-infected with HIV/AIDS. Close coordination with HIV/AIDS staff and managers from ISESALUD has already been initiated and will continue. State and jurisdiction-level HIV representatives participated in the DIP workshop in March 2005. The project will seek to apply lessons learned from HIV programs to enhance the case management approach to better address the needs of patients with co-infection. Project staff from ISESALUD and PCI will work with HIV program staff to develop a guide for counseling TB patients using an approach similar to HIV/AIDS counseling methodologies. ISESALUD will identify TB-HIV co-infection patients and will assign these cases to the project's DOTS personnel as appropriate. Trained *promotora/es* will observe dose intakes under a case-management approach that clearly identifies each patient's status and treatment phase. For PLWHAs and people who have been in contact with TB patients in drug rehabilitation centers and at the HIV hospice, the project will raise their awareness regarding the possibility of having latent TB, and, in the case of existing HIV/AIDS infection or disease, these individuals will be provided with chemoprophylaxis. Currently, AIDS medications

are available through a state- and federally-sponsored mechanism. Patients receive a 4-medication combination under strict treatment-adherence rules, mainly AZT, 3TC, DDI, and D4T. In addition, HIV/AIDS medications available include a list of 17 different options that are prescribed under a case-management approach.

SOLUCION TB promotora/es and DOTS workers (nurses and social workers with technical skills providing supervisory and administrative support for the project) will be trained in relevant co-infection issues regarding treatment, case management and drug interactions. ISESALUD is very committed to addressing the increasing co-infection and association problem of HIV-TB-substance abuse. In December 2004, the State Committee for HIV-TB and substance abuse was established, and PCI was invited to become a member. It is the first of its type in the nation, and it responds to the epidemiology of the region, which faces an increasing HIV/Substance Abuse problem; thus impacting the TB situation.. The committee will explore mechanisms of community involvement and participation to address these issues. The *SOLUCION TB* project will seek to improve dialogue between the BC State HIV/AIDS and the BC State TB Department to strengthen coordination and promote quality of services. HIV/AIDS program staff will be invited to participate in quality circles and educational forums for the TB project as appropriate, throughout the LOP.

LLR 1.3: Capacity of Laboratories to Conduct Procedures Improved

Currently, a total of seven lab technicians are available to conduct smear sample readings at ISESALUD in Mexicali and Tijuana. These technicians perform an average of 20 readings each day. In order to respond to the additional demand for laboratory tests created by this project, while strengthening and expanding quality case control, *SOLUCION TB* will provide ISESALUD with an additional two lab technicians. One technician will be assigned to Mexicali, and another will be in Tijuana. Technicians will be recruited by ISESALUD and trained by the National Institute of Epidemiology and References (INDRE) as part of the MOH's quality control program. Technicians will be supervised by ISESALUD according to their existing quality control standards. Technicians will participate in monthly quality control circles, as appropriate, in order to improve communication, team-building, and effective problem-solving.

LLR1.4: Organizational Information and Communication Systems for DOTS Improved and Expanded

Crucial to effective management and adequate supervision leading to increased control and prevention of TB is an effective information system. Supervision of DOTS workers and identification of treatment failure or abandonment needs to be carefully coordinated and documented. The *SOLUCION TB* project will assist ISESALUD with this important area by providing computer equipment and internet access necessary for the effective implementation of existing information system and protocols. The project will also make staff available to carry out administrative follow-up duties, to ensure updated and accurate data.

The State TB Control Program recognizes the lack of prompt access to information and lack of equipment to access e-mail and internet-based communication as one of the weaknesses of the current program. The project will coordinate the installation of and cover expenses for three computers, installation of three phone lines and yearly maintenance costs, and email expenses for the duration of the project. ISESALUD is committed to covering the monthly cost of the phone

lines during the project, and once the project ends, will continue to cover all of these expenses. New computer equipment provided under this project will assist the TB Program Director and the district-level coordinators in conducting data analysis and reporting in a more efficient manner. Access to e-mail is key to ensure prompt and effective two-way communication between the state and districts and NGO partners. In addition, the project will provide opportunities for face-to-face dialogue and coordination related to this project; and on-going capacity-building of staff in communication systems will focus on an increased understanding of communication and reporting protocols, as well as performance expectations. *SOLUCION TB* staff are aware that USAID has donated a computer, audio-visual and laboratory equipment to the BC State Secretary of Health, and will ensure that additional equipment is complementary and non-duplicative of these donations.

The project will solicit bids from three agencies—such as *Prosperitas*, a consulting firm with which PCI has worked in the past, and others—to develop a user-friendly, graphic, internet-based informational system logic map. This will be a practical tool facilitating staff presentations of the *SOLUCION TB* model to NGOs and various levels of policy makers/decision-makers. A *SOLUCION TB* staff member will upload data, reports and presentations to the site so that updated real-time information is available for presentations. The system will be designed to help project staff document and share information on TB and DOTS within the region, with the NTP, and with other key stakeholders as part of the promotion of the *SOLUCION TB* model. Project staff will be provided with hardware and software to facilitate their access to the system. Based on previous work of this type on Reproductive Health and HIV projects, PCI anticipates the overall cost to be around $15,000 (in the current budget), including training of a staff person for site updates, design, and technical support for a minimum of one year. Through recent discussions with Ms. Molly Lindner, USAID/Mexico, Health Program Manager, PCI has recently learned that USAID and the Mexican MOH are developing a similar type of integrated management system. The project will keep abreast of the development of this system, communicate project progress on the logic maps with the Mission, and thus avoid any duplication of systems.

One administrative follow-up individual will work at the Mexicali jurisdiction, two more will perform these administrative duties at the Tijuana jurisdiction, and one more at the state level. Administrative support staff will report to the TB Managers in each jurisdiction and to the State TB Director, respectively. They will carry out periodic reviews of reports to check for consistency and accuracy, produce reports as needed, and enter data into ISESALUD reports. A half-time data manager at the ISESALUD state level will collect and input *SOLUCION TB* cohort data.

The project's information system and protocols will follow the existing state and national protocols and clearly describe the timing and type of information to be submitted—on a daily, weekly, monthly, and quarterly basis—from the health workers to the supervisor, from the supervisor to district level personnel, from the district to the state level, and from the state level to the national level. Fluid, multi-directional communication will be essential in ensuring appropriate coordination and optional performance. To ensure adequate communication of messages and avoid duplication and unnecessary burdens with multiple messages, a PCI and an ISESALUD key contact person have been designated to be responsible for sharing information

relevant to project set-up, DIP preparation, and other key planning and evaluation activities. Ongoing and multi-directional communication at the jurisdiction level will be established between technical staff (PCI project director, project and community coordinators, and ISESALUD state and jurisdiction-level TB managers) for regular project implementation communication and reporting. At the local, community level, reporting forms include: (a) form to request baciloscopy; (b) form for epidemiological study (EPI-2-95); (c) EPI-1-95 (weekly notification of new cases); (d) *Sistema de Informacion en Salud para Poblacion Abierta* (SISPA - Health Information System for the General Population) form; (e) home visit form; (f) contact study form; (g) enrollment and treatment control form; and (h) enrollment and follow-up form. At the District level, information forms include the above-mentioned forms, plus: (i) Monthly lab reporting form; (ii) Clinic Registry for TB Case Follow-up; (iii) DOTS supervision form; and (iv) EPI-TB National Registry. (See Annex 12 – TB Information System- Types of Forms, Information Provided and Decisions Informed.) In collaboration with ISESALUD and the USAID Mission, *SOLUCION TB* will work to ensure coordination, avoid duplication, and maximize complementarity with other USAID-funded components related to equipment, supplies, and communications. Since the project began, PCI and ISESALUD have been in close communication with USAID (CSHGP and the USAID/Mexico Mission), the San Diego County Department of Health, and Centers for Disease Control & Prevention (CDC).

IR2: Political Commitment for National and State TB Control Programs Improved and Sustained

As previously mentioned, key to the successful implementation of a DOTS program is sustained political commitment to TB control and prevention. The national TB action plan lists society's participation, coordination, and organization as key strategic components for effective control and prevention of TB.

PCI will work with ISESALUD to increase community-based commitment through the participation of an expanded number of community-based *promotora/es* and NGOs. Currently, PCI's local partner in Tijuana, *Medicina Social Comunitaria* (MSC), is the only NGO working in TB control in the project area. The project seeks to expand from one to three the number of NGOs/Rehabilitation Centers implementing DOTS, and from four to 38 the number of trained *promotora/es* working to control TB and reduce morbidity and mortality at the community level.

The project will coordinate linkages with local rehabilitation centers in Mexicali and Tijuana whose experiences with, and networks linking, potential TB patients will enable PCI and ISESALUD to expand the impact of project interventions to a broader community. Also, by bringing a greater number of NGOs into TB control, PCI and ISESALUD will ensure that they will be poised to gain greater political commitment and support from complementary national and global initiatives. This was also discussed by participants as an activity that will promote sustainability for the project, and for TB control in general, at the recent DIP workshop for *SOLUCION TB*.

Specific to medical schools, project staff will conduct meetings with deans and faculty of local universities to promote and ensure the discussion of DOT as part of existing curricula. Building

on existing networks, relationships, and opportunities for presentation and dialogue, project staff will ensure that issues related to DOTS and TB are at the forefront of the policy agenda. The project will collaborate with the State Stop TB Committee and the existing TB-HIV-Substance Abuse Committee to strategize on and promote advocacy/policy dialogue events, including face-to-face meetings, group interactions, and presentation of information through the mass media if appropriate—for example, during World Stop TB Day activities and events (*SOLUCION TB* staff supported ISESALUD's TB day in March 2005). PCI is a member of ISESALUD's TB-HIV-Substance Abuse committee, and will support current efforts to establish the Stop TB and other district-level TB Subcommittees.

LLR 2.1: SOLUCION TB *Model Approaches, Tools and Results Documented and Effectively Shared*

Effective strategies, tools, results, lessons learned, and promising practices will be documented and proactively shared with a wide variety of stakeholders and potential future implementers. This will be done not only in written form (reports, articles, etc.), but through exchange visits, interactive presentations made at strategic events, and through innovative use of the internet. The internet-based system (logic map) described above will be a powerful means of sharing information and materials in a compelling and practical way. A tool kit will be developed so that groups, programs, and governmental officials can have access to community-based DOTS programming tools and adapt them to other areas in Mexico. Social service clubs, such as Lions and Rotary, will be approached to raise their awareness of TB control and *SOLUCION TB*. As part of the learning process, regular meetings between staff will be held to promote information- and lessons-sharing.

Promotora/es and staff from Mexicali and Tijuana will meet together twice a year in order to encourage learning through face-to-face interaction. PCI and ISESALUD staff will design a meeting agenda based on learning needs and opportunities. *Promotora/es* and staff will meet on a monthly basis to encourage learning and facilitate problem-solving and communication, and ensure motivation. Key to the success of the project is the sense of *ownership* and strong commitment of project staff and partners. Motivation may decrease if a sense of isolation exists, or if a perception of lack of purpose sets in. *SOLUCION TB* is a labor-intensive project. Patients can often be perceived as 'difficult,' and TB is just one of many issues staff are dealing with. A skillful, motivated worker is needed to respond to this reality. Opportunities for physicians and nurses to dialogue with, and learn from, *promotora/es* will be sought by project staff throughout the LOP. These opportunities may include: presentations at U.S./Mexico Border Health Association conferences, Ten Against TB meetings, and two low-cost, high-level lessons learned events – one at midterm, and another at EOP. The process of not only learning about the program and its results and approaches, but of applying that learning in real life situations, will be facilitated through user-friendly guides and on-the-job technical assistance.

LLR 2.2: Dialog about Improving TB Policy Increased

In addition to advocacy work at the community and civil society levels, the project will focus attention on facilitating and participating in ongoing policy dialogue with decision- and policy-makers at local, state, and national levels. Project staff will identify a list of key legislators, such as members of health commissions at local and state levels, and decision makers. A fact-sheet will be produced in collaboration with ISESALUD, containing relevant data and

information on TB, and clearly identifying opportunities for support required to enhance TB control, which may include: increased allocation of resources; access to vehicles or fuel to ensure transportation; and support of destigmatization efforts, support of TB workers, etc. Key opinion leaders will be identified and co-opted as spokespersons to increase the number of personnel able to speak with authority and enthusiasm about the project and its approaches. Throughout the LOP, key strategic events and appropriate venues for sharing information with relevant decision-makers and program implementers will be identified and utilized as platforms for sharing and motivation to action. For example, project staff and partners will seek out opportunities to present at local, regional, and national conferences, committee meetings, technical roundtables, etc. *SOLUCION TB* staff are already well-connected and positioned to continue enhancing dialogue among and between medical circles and policy-makers.

ISESALUD management (Minister of Health, Director of Health Services) and others, down to program implementers, have shown a high level of support for the *SOLUCION TB* project prior to its inception (during proposal preparation) and subsequently, and demonstrate an important commitment to TB control in general.

IR3: Quality Utilization of TB DOTS Components of Existing Local Medical School Curriculum Increased

ISESALUD and PCI have established collaboration mechanisms with two key medical schools in Tijuana and Mexicali. These partnerships will be utilized to promote the inclusion of DOT as a key element of TB control. The subject of TB is currently part of medical training curricula at all universities. However, the quality and degree to which DOT is included and talked about at relevant classes (Pneumonopathology, Heart, Lung, and Thoracic Studies) may vary widely. *SOLUCION TB* will work with the Medical School Directors in order to maximize exposure of medical students to DOT and *SOLUCION TB* project activities. Faculty will be presented with options for medical students to interact with and learn from *SOLUCION TB* events, such as seminars for students and faculty, and provision of field-work opportunities for observation of DOT either at the health clinic or within the community for home visits. Additionally, for medical students in residency, project staff will make additional presentations/technical updates on DOTS available to students assigned to the participating jurisdictions.

LLR3.1: Increased Participation of Medical School Faculty in SOLUCION TB *Events*

Each year, early in the fall, project staff will negotiate with medical school administration a date for their yearly seminar. Project staff are currently exploring the possibility of having medical students receive special credit for participation in these seminars, and requiring faculty to attend through school administration decrees. It is estimated that in each city, Mexicali and Tijuana, approximately 25 students and/or faculty will participate in these seminars. Project staff will conduct a minimum of two meetings per year with medical school directors in both Tijuana and Mexicali to: (i) Ensure that epidemiological data for the region is available for teaching purposes; (ii) Share the *SOLUCION TB* model and its strategies and activities to elicit support for the achievement of its goals; (iii) Ensure close coordination and follow-up on *SOLUCION TB* seminars; and (iv) Help administrators and faculty identify models to increase the quality and degree of DOTS inclusion in relevant classes.

Discussions during the DIP workshop indicated the need to explore incentives that will encourage faculty to improve their attitudes and behaviors. Possible strategies might include: some type of publicity boost, such as a special award for faculty who spend a certain number of hours discussing the benefits of the DOTS strategy, or for faculty with the greatest number of students participating in *SOLUCION TB* events. Another possible strategy may be to add more specific questions on DOTS on medical school examinations or accreditation reviews. In order to measure progress towards this result, at midterm and EOP, project staff will survey medical school faculty participating in DOTS activities to determine if their level of commitment to teaching about DOTS as part of their medical school course load has increased due to their interaction with the *SOLUCION TB* project.

LLR3.2: Number of Students Participating in Hands-On DOTS Field Work Increased

Project staff believe that highly motivated students who are first-hand witnesses to the benefits of the *SOLUCION TB* model will gain enthusiasm for use of the model, and put a certain degree of pressure on their professors to increase learning opportunities regarding this strategy. Staff also feel that students who have the opportunity to work side by side with a *promotor/a* or clinic-based DOTS worker will be more likely to buy into the strategy, utilize, and support it once they begin their own medical practices. *SOLUCION TB* staff will negotiate with medical school faculty to ensure that each year during the fall a certain number of medical students participate in DOTS field work either through a one-day field work job shadow opportunity with a *promotor/a* visiting patients in their homes or by accompanying a DOTS worker during their observation of DOT in the clinic. Staff estimate that two different clinics within each jurisdiction will receive visits from students each year. Additionally, for medical students in residency who are required to complete "social service", the project estimates that 75% of students assigned to the participating jurisdictions will attend presentations/technical updates on DOTS at the jurisdiction level. (After completing medical school, graduates provide a year of "social service" to communities in need, as assigned by ISESALUD).

This will ensure practical learning of a community-based *promotora/es* system for the control and prevention of TB, which will be a unique opportunity for medical students. To facilitate these opportunities, the project will benefit from the assistance of two of the *SOLUCION TB* staff (one from PCI, one from ISESALUD) who are part of *Universidad Autonimo de Baja California* (UABC) faculty, and others who have existing working relationships with additional schools and universities.

Potential for Building the Capacity of ISESALUD and PCI Staff

PCI and ISESALUD believe in the importance of frequent informational exchanges with private and public sector partners, making the most of opportunities to celebrate the positive aspects of a project, in order to reflect on ways to replicate them for greater health impact and jointly seeking viable solutions to programming challenges. To ensure that NGOs and other public and private sector partners benefit from the project's lessons learned, and, in turn, share their own experiences in TB programming, ISESALUD and PCI will facilitate two lessons learned events—one at mid-term and another at EOP (see LLR 2.1). PCI will utilize a variety of mechanisms to ensure that valuable lessons learned from the project are shared with PCI headquarters and field staff in all 10 field offices around the world. To increase institutional

awareness among PCI IO and field staff, key PCI project staff will facilitate interactive technical updates on TB and the DOTS approach each year on World TB Day, providing examples from other country programs and an overview of the of *SOLUCION TB's* progress. These technical updates will be conducted by PCI's TB working group through email. The Project Director, with extensive experience managing TB programs at the community level, together with key TB staff from ISESALUD with whom the project's technical backstop has already developed an excellent rapport, will help to further build the capacity of the technical backstop in TB (PCI's Maternal & Child Health (MCH) Technical Officer (TO)) through regular field visits, e-mail, and telephone contact between the offices. On occasion, other selected IO and Field project staff (who may be visiting the IO from one of PCI's other country programs outside the U.S. and Mexico) will make site visits to observe DOTS in action and/or to one of the labs to learn more about the diagnostic process. On May 6th, 2005, as part of the Global Leadership Team Conference and the Executive Committee (EC) meeting of PCI's Board of Directors, PCI's ten field directors, the EC members, and IO staff conducted a site visit to the Tijuana *SOLUCION TB* project.

PCI will also build capacity with its field staff through an on-line working group dedicated to the dissemination of TB approaches and experiences. Over the past two years, PCI has been using the approach to share lessons learned from their own and other PVOs' reproductive health and HIV/AIDS projects. Resources and tips for successful programming approaches will be shared with an emphasis on promoting appropriate, high quality project development and expansion. Members of the PCI TB working group will be encouraged to submit articles, websites, successful concept papers, or specific TB-related technical questions for discussion by group members. PCI will seek to coordinate HIV/TB activities from the level of its headquarters down to specific field-level project interventions. From on-going, on-the-job training, lessons learned, and the daily experiences of managing a TB project of this scale, PCI/Mexico field staff and ISESALUD staff will increase their capacity in a number of areas, such as program design and strategic planning (through DIP preparation and adjustments), program management, quality assurance (through the "Quality Circles" approach), case and project documenting and reporting, resource management, partnership cultivation, behavior change strategies, supervision techniques, and evaluation and monitoring.

Because of their diverse backgrounds, PCI and ISESALUD will complement each other's strengths, while further developing each other's capacities during the LOP. Specifically, PCI will strengthen ISESALUD's technical expertise in community-based programming and how to develop and maintain effective *promotora/es* networks. PCI will work closely with its local NGO partners to improve their management and administrative skills related to TB control and infectious disease programming. ISESALUD's long, extensive experience and technical expertise in managing the technical aspects of TB programming will enable PCI's project staff to further deepen their growing base of technical knowledge in TB. In addition, ISESALUD's experiences in working in collaboration with the NTP will provide PCI and the entire project with valuable insight regarding TB policy issues and opportunities at the national level. As earlier mentioned, IESALUD has demonstrated strong program support and has contributed to the unique partnership between PCI and ISESALUD. This is one of the beneficial aspects of this project, and will enhance the possibilities of expansion, institutionalizing of quality, and sustainability of impact.

Project Concern International

Mexico SOLUCION TB

Strengthening Observed Linking Up Community-based Integrated Outreach Networks for TB Control

Performance Monitoring Plan

Strategic Objectives	Indicators	Data Source	Frequency	Baseline Value	EOP Target
SO: To increase TB treatment success rates and influence national TB efforts by developing and implementing a *SOLUCION TB* strategy of Directly Observed Treatment Short Course (DOTS) using *promotora/es and DOTS* health workers	1. Treatment success rates (% completion plus cure rates) in project area (Sustainability Dimension 1-Component 1)	1. EPI TB	1. Biannual	58.4%	85%
IR1: The "*SOLUCION TB*" model implemented in the departments of Mexicali and Tijuana in Baja California.	1. Cumulative # of new pulmonary TB patients undergoing *SOLUCION TB* DOTS model strategy	1. Promoters reports	1. Weekly	0	1,190
	2. % of all confirmed new pulmonary TB cases being treated by ISESALUD that are following the *SOLUCION TB* DOTS strategy (Sustainability Dimension 1-Component 2)	1. EPI TB 2. Promoters reports	1. Biannual 2. Weekly	0	95-100% (1130-1190)

Strategic Objectives	Indicators	Data Source	Frequency	Baseline Value	EOP Target
	3. % of all confirmed TB cases being treated that are being treated under DOTS (population in general – note that ISESALUD provides coverage to approx. 80% of the State's TB cases)	1. EPI TB	1. Biannual	48%	95%
	4. Treatment success rate (% completion plus cure rates) of patients on *SOLUCION TB* DOTS strategy	1. EPI TB 2. Promoters reports	1. Biannual 2. Biannual	0	85% (1,012)
	5. % of SOLUCION TB DOTS strategy patients who abandon treatment.* * For ISESALUD, this means treatment interruption has surpassed 30 days	1. EPI TB 2. Promoters reports 3. Focus groups	1. Biannual 2. Weekly 3. BL, MTE, FE	0	Decrease to 3%
	6. % of TB patients who abandon treatment in DOTS (population)	1. EPI TB	1.Biannual 3.BL, MTE, FE	4.3% Mexicali 15.0% Tijuana 9.8 % Combined	Decrease to 3%
LLR1.1: Community-based *promotor/a* system to increase direct observation of treatment (DOT) for TB patients improved and expanded	1. # of active *SOLUCION TB* promoters/DOTS workers identified, recruited, trained in DOTS per TB population	1. Project records/contracts 2. EPI TB	1. Annual 2. Annual	0	36 /360 patients per year (180 yr 1) (34 promoters +2 NGO promoters + 5 Admin/Support)
	2. Total number of promoters/DOTS absorbed by ISESALUD at EOP. (Sustainability Dimension 3- Component 5)	1.Project records/contracts 2. ISESALUD records	1. FE	0	10 at EOP

Strategic Objectives	Indicators	Data Source	Frequency	Baseline Value	EOP Target
	3. % of *SOLUCION TB* DOTS strategy patients undergoing treatment in accordance with standard treatment protocols (adherence)	1. EPI TB 2. Promoters reports	1. Biannual	0	95%
	4. # number of TB cases (caseload) per *SOLUCION TB* DOTS *promotor/a*	1. Project records	1. Biannual	0	5
LLR1.2: Effective strategies for reaching marginalized, high risk target groups (PLWHAs, substance abusers) developed and implemented	1. % of targeted high risk patients enrolled in *SOLUCION TB* DOTS, successfully completing DOTS treatment regimen	1. EPI TB 2. Project records	1. Biannual 2. Biannual	0	85%
LLR1.3: Capacity of laboratories to conduct procedures improved	1. # of qualified (certified) lab technicians hired and trained. (Sustainability Dimension 1- Component 2)	1. Project records 2. Project contracts 3. HR records (copies of certifications)	1. Annual 2. Annual 3. Annual	0	2
	2 . # of baciloscopies completed by technicians per day	1. Project records 2. Lab technicians records	1. Biannual 2. Monthly	20	16-18*
	3. % of patients who receive 3 control baciloscopies for adequate TB control per MOH TB norms. (Sustainability Dimension 1- Component 2)	EPI TB	MTE, FE	n/a	TBD
	4. % of positive baciloscopies rechecked	Lab technicians records	MTE, FE	100%	100%

Strategic Objectives	Indicators	Data Source	Frequency	Baseline Value	EOP Target
	5. % of negative baciloscopies rechecked	Lab technicians records	MTE, FE	10%	10%
LLR1.4: Organizational information and communication systems for DOTS improved and expanded	1. # of ISESALUD TB managers reporting improved communication with colleagues via internet	1. Key informant interviews	MTE, FE	0	6
	2. % held versus planned meetings for project staff (Sustainability Dimension 2- Component 3)	1. Project records	MTE, FE	0	85%
	3. # of ISESALUD TB managers reporting utilization of internet-based logic map (project key informant interviews)	1. Key informant interviews	MTE, FE	0	6
IR2: Political commitment for national and state TB control program improved and sustained	1. ISESALUD budget allocations for NTP activities increased. (Sustainability Dimension 2- Component 4)	1. ISESALUD budget allocations records	1. Annual	$261,594	10% increase over baseline (in addition to inflation adjustments)
LLR2.1: *SOLUCION TB* model strategy approaches, tools and results documented and effectively shared	1. # of individuals receiving information on results, model approaches, lessons learned and tools	1. Project records 2. User satisfaction surveys	Annual MTE, FE	0	100/year
	2. Number of individuals attending *SOLUCION TB* seminars	1. Seminar reports/ rosters	1. MTE, FE	0	100
	3. Number of social service clubs (Lions, Rotary, etc.) aware of TB control needs and *SOLUCION TB* activities. (Sustainability Dimension 3- Component 5)	1. Project records 2. Seminar reports/ rosters	1. MTE, FE	0	6

Strategic Objectives	Indicators	Data Source	Frequency	Baseline Value	EOP Target
	4. % of physicians having attended a *SOLUCION TB* seminar who report willingness to provide appropriate referrals to DOT providers	1. Key informant interviews	1. MTE, FE	0	65%
LLR2.2: Dialog about improving TB policy increased	1. # of contacts established with key decision-makers by *SOLUCION TB* staff/partners	1.Project records	Annual MTE, FE	0	20/year
	2. # of key decision makers that report increased participation in TB policy influencing activities as a result of contacts with *SOLUCION TB*	1.Project records 2. Key informant interviews	Annual MTE, FE	0	10
IR3: Quality utilization of TB DOTS components of existing local medical school curriculum increased	1. # of school training plans demonstrating quality utilization of TB DOTS component	Project records	Annual	N/A	3 training plans per university (6 total)
LLR3.1 Increased participation of medical school faculty in *SOLUCION TB* events	1. # of interviews/meetings with medical school directors to promote the importance and use of DOTS within the medical school curriculum.	Project records	MTE, FE	0	2 meetings per year with medical school directors in both Tijuana and Mexicali
	2. # of medical students and faculty participating in DOTS seminars/field work (one-day sessions on campus &/or one day field work with a *promotora* or DOTS supervisor) who report their commitment to DOTS strategy and to teaching about DOTS as part of their medical school course load	1. Project Records 2. Seminar attendance rosters 3. Student/Faculty surveys	MTE, FE	0	25 students/faculty per semester/city

Strategic Objectives	Indicators	Data Source	Frequency	Baseline Value	EOP Target
LLR3.2 Number of students participating in hands-on DOTS field work increased.	1. # of medical students participating in DOTS seminars/field work (one-day sessions on campus and/or one day field work with a *promotor/a* or DOTS supervisor) who report their commitment to utilizing/supporting DOTS strategy in their future practices. (Sustainability Dimension 3, Component 6)	1. Project Records 2. Seminar attendance rosters	MTE, FE	0	TBD

6/30/05

*The range of 16-18 is considered reasonable by ISESALUD to allow for a lower error rate regarding sputum samples read.

3. Program Monitoring and Evaluation Plan

PCI believes that achievement of impact begins when monitoring and evaluation (M&E) is integrated into management philosophy and operational planning. M&E will therefore be applied as a daily management practice that ensures the quality and accountability necessary to plan a results-oriented programming methodology. PCI also views good M&E as essential for organizational learning, contributing to state-of-the-art practices, building strong organizational partnerships, and for increasing the empowerment capacity of the communities served through this project. Additionally, ISESALUD's monitoring system for TB Control activities is very strong and follows internationally-recognized standards.

Plan Overview

Progress will be measured via a set of indicators (inputs, process, and outputs, impact) included in project management and supervision:

Inputs refer to resources, staff, funds, facilities, supplies and training. Sample indicators include:

- Number of active SOLUCION TB *promotora/es*/DOTs workers identified, recruited and trained
- Number of qualified (certified) lab technicians hired and trained

Processes refer to the multiple activities required to achieve the project's objectives. Sample indicators include:

- % of patients who receive 3 control baciloscopies for adequate TB control per MOH TB norms
- Number of baciloscopies completed by technicians
- Number of ISESALUD TB managers reporting improved communication with colleagues via internet

Outputs refer to program level efforts. Sample indicators include:

- % of all confirmed TB cases being treated by ISESALUD that are following the SOLUCION TB DOTS strategy
- Treatment success rate of patients following SOLUCION TB DOTS strategy
- % of targeted high risk patients enrolled in SOLUCION TB DOTS that successfully completed DOTS treatment regimen

Impact refers to project's long term effects/results achieved in the target population (these indicators will not be measured during the LOP). Sample indicators include:

- Changes in prevalence of TB infection
- Changes in TB mortality
- Changes in TB morbidity

Monitoring will be a routine part of supervision and performance enhancement. Monitoring mechanisms will include Mexican health care information systems, such as the national infectious disease reporting system (SUIVE), EPI-TB, and community clinic patient registration systems, as well as PCI project-specific tracking systems (patients, *promotora/es*, key informant contacts) and performance evaluation tools.

Annual in-depth project reviews will determine the extent to which PCI and partners are progressing. This will ensure timely feedback and will allow project managers to use the annual work-planning process to make necessary project modifications. These reviews will involve PCI and ISESALUD, other relevant stakeholders, and technical resources such as the NTP. ISESALUD staff will conduct internal data analyses every six months in order to ensure that the project remains on track and that successful approaches are replicated.

Project Evaluations

To formally document and validate lessons learned, project progress and project impact, midterm and final evaluations will be carried out by local external evaluators.

Midterm Evaluation (MTE): This will be conducted approximately halfway through the project period (end of Year 2). The MTE will serve as a management tool to refine program activities and improve program management. Specifically, it will assess progress in achieving planned results; gauge movement towards meeting targets; adjust/refine targets as needed; and identify constraints and difficulties, lessons learned, and future program needs. Results from the MTE will be used to develop and propose recommendations for improving program design and implementation. The MTE will employ the same basic quantitative and qualitative methodologies used for the baseline assessment, as well as data collected routinely by local observers and ISESALUD.

Final Evaluation (FE): An external FE will be carried out in the latter months of the project's last year (Year 4). It will document achievement of project objectives, important lessons learned, and innovations. To determine the impact of project activities, outcome data will be compared to baseline data and to reference indicators.

As discussed under LLR 2.1, PCI and ISESALUD will facilitate two lost-cost lessons learned conferences, one at midterm and another at the EOP, to share project progress, successful strategies, and encourage further support for sustaining project results with relevant public and private sector health staff at the state and jurisdiction levels.

Current Information Systems and Data Integration

For ongoing program monitoring and periodic evaluations, *SOLUCION TB* will work closely with existing health information systems in the region. Clinics in Mexicali and Tijuana have established TB patient tracking systems that coordinate with the laboratory systems, SUIVE and the national TB registry (EPI-TB). The tracking systems use a TB patient treatment card for overseeing treatment schedules, and a TB registry to monitor all TB patients through their full treatment cycle and follow-up testing. Information from the clinic TB registry is sent monthly to update the national TB registry (EPI-TB). (Please see *SOLUCION TB* Patient Information Flow Diagram in Annex 10.)

SOLUCION TB community health workers (*promotora/es*) will coordinate with these clinic and national systems by conducting home visits, carrying out contact tracing, and helping to maintain the clinic's DOT treatment records. To follow its own patients' treatment, *SOLUCION TB* will also develop and maintain a database including *SOLUCION TB* patient information and

comments relevant to program monitoring. At six-month intervals, national TB registry (EPI-TB) information for the Tijuana and Mexicali jurisdictions will be extracted and linked electronically to *SOLUCION TB* patient records. The combined information will be used for data validation, program monitoring, and group analysis.

Monitoring Tools and Participatory Methodology

SOLUCION TB promotora/es training and retention will be monitored with a *promotora/es* tracking registry. Quality will be monitored by QIVC that will be designed to assess home visits, patient counseling, and methods of encouraging patient adherence. These QIVC tools will be adapted from other existing tools (WHO, etc.) by *SOLUCION TB* staff and will be disseminated through TB seminars.

ISESALUD will monitor laboratory capacity biannually by checking lab reports for patient records in EPI-TB and samples sent to Mexico's National Lab (INDRE) for quality control. Tracking progress in the promotion of DOT as a model for TB programs in Mexico will be based on key informant interviews and user satisfaction surveys that will be conducted by the *SOLUCION TB* leadership team.

Increased political commitment related to the issue of TB control will be evaluated by monitoring ISESALUD's budget increases for Baja California's TB programs and by influential decision-makers' increased participation in TB programs. Progress in both areas will be reviewed annually by staff. *SOLUCION TB* will monitor the project's effect on local medical education by interviewing the medical school leadership about the importance of promoting DOTS. Seminars on TB and DOTS will also be held with private physicians followed by an assessment of their intention to adopt DOTS.

Data Collection

Monitoring and evaluation data will be obtained from clinic records, MOH systems, and *SOLUCION TB* patient systems. The patient TB treatment card, the clinic TB registry, and the National TB Registry (EPI-TB) will be maintained by the clinic and the MOH. *SOLUCION TB promotora/es* will complete paperwork for standard home visits, patient evaluations and contact studies, in addition to updating weekly treatment records. *SOLUCION TB* staff will develop and maintain a patient tracking database for their own patients and will update it using information from ISESALUD patient treatment tracking records. A half-time *SOLUCION TB* staff member will be trained to conduct data collection, data entry, system maintenance and regular data backup. In addition, the administrative staff supporting the project (two of the DOTS workers (nurses) in Tijuana, and one in Mexicali at the municipality level, in addition to one at the State level) will assist the *SOLUCION TB* staff member with data management. Together, they will review project records, check for inconsistencies, errors, duplicative information, etc. A roster will be used to track the training and staffing status of *promotora/es*. These rosters will be maintained by the supervisors of the *promotora/es*.

Rosters will also be set up to track key informant interviews, user satisfaction surveys, informational presentations, meetings with MOH, medical school officials, and laboratory capacity monitoring.

Data Analysis

Assisted by the PCI IO M&E staff, the data entry/maintenance person for the *SOLUCION TB* system will be trained in data management and analysis, conducting imports from the national TB registry (EPI-TB), matching *SOLUCION TB* patient data with information extracted from EPI-TB, and performing bi-annual group analyses based on this merged data.

Within the MOH, under the supervision of the ISESALUD Program Director in BC, the state TB registry staff will use the EPI-TB database to provide analysis of treatment success for the Tijuana and Mexicali region.

Cohort analysis of treatment success will be an important part of SOLUCION TB program monitoring and evaluation. All new smear positive pulmonary TB patients diagnosed in the region within specific sequential 6 month time periods will be divided into four cohorts as follows: 1) TB patients not participating in SOLUCION TB DOTS, 2) TB patients participating in SOLUCION TB DOTS who are living with HIV/AIDS 3) TB patients participating in SOLUCION TB DOTS who are in re-habilitation for substance abuse 4) TB patients participating in SOLUCION TB DOTS who are not in one of the two high-risk target groups (where most of the SOLUCION TB patients will be included). Six-month cohorts of these groups will be followed successively throughout the life of the project (LOP). To assist this cohort analysis, the *SOLUCION TB* database (developed by local staff and PCI international office M&E staff) will be supplemented at six-month intervals with extractions from the national TB registry (EPI-TB). Please see chart below:

SOLUCION TB Cohorts

Cohort	Data Source	Indicator	Definition
TB patients not participating in SOLUCION TB DOTS	EPI-TB	Treatment Success Rate	Numerator: Number of new smear-positive TB cases registered in 6 month time period who were not in the SOLUCION TB program that were cured plus the number that completed treatment. Denominator: Total number of new smear-positive pulmonary TB cases diagnosed in defined 6 month period who were not in the SOLUCION TB program
TB patients participating in SOLUCION TB DOTS who are living with HIV/AIDS	EPI-TB SOLUCION TB patient records	Treatment Success Rate	Numerator: Number of new smear-positive TB cases registered in 6 month time period who were in the SOLUCION TB HIV/AIDS intervention that were cured plus the number that completed treatment. Denominator: Total number of new smear-positive pulmonary TB cases diagnosed in defined 6 month period who were in the SOLUCION TB HIV/AIDS intervention.
TB patients participating in SOLUCION	EPI-TB SOLUCION TB patient	Treatment Success Rate	Numerator: Number of new smear-positive TB cases registered in 6 month time period who were in the SOLUCION TB

TB DOTS and in re-habilitation for substance abuse	records		intervention and in re-habilitation for substance abuse. Denominator: Total number of new smear-positive pulmonary TB cases diagnosed in defined 6 month period who were in the SOLUCION TB intervention and in re-habilitation for substance abuse.
TB patients participating in SOLUCION TB DOTS who are not in one of the two high-risk target groups	EPI-TB SOLUCION TB patient records	Treatment Success Rate	Numerator: Number of new smear-positive TB cases registered in 6 month time period who were in the SOLUCION TB program but not in one of the high risk groups that were cured plus the number that completed treatment. Denominator: Total number of new smear-positive pulmonary TB cases diagnosed in defined 6 month period who were in the SOLUCION TB program but not in one of the high risk groups.

A significant focus will be on presenting pertinent information in user-friendly formats to make it accessible to a wider audience in order to promote documentation, sharing, and organizational learning. The midterm and final evaluations will provide feedback for updating, expanding, and developing the sustainability of the DOTS program. Measures of client and community satisfaction will be determined through a variety of strategies, including focus groups, key informant interviews, and "exit" interviews. Evaluation of the sustainability of project outcomes will be facilitated through the refinement and measurement of progress of sustainability indicators as part of the Child Survival Sustainability Assessment (CSSA) framework.

Monitoring and Improvement of Staff Capacity

Initial training will be conducted during Year 1, and refresher trainings each successive year. *Promotora/es* will meet at least once a year to share information and identify lessons learned. Pre-tests, post-tests, and direct observation will be incorporated during trainings to assess knowledge, skills, and practices, and will be repeated at regular intervals thereafter. The adequacy of the *promotora/es* supplies, pharmaceuticals, and equipment will be assessed during the quality circle meetings. Methods to improve the capacity of the *promotora/es* to manage these supplies will be discussed and decided upon during these meetings.

It will be a project priority to provide technical assistance and on-the-job training for improving both the quantitative and qualitative M&E capacity of staff and partners, including TB personnel at ISESALUD and partner NGOs.

Quality Assurance and Program Improvement

PCI will provide ISESALUD and other partners with technical M&E assistance as part of an overall supervision and quality assurance system that includes the use of targeted data for ongoing strategic planning and decision-making.

Drawing on PCI's experience in Bolivia, the project will implement "Quality Circles"—an effective participatory methodology for performance improvement. This approach develops people's skills, capabilities, confidence, and creativity through education, training, work experience, and participation. Training will be provided to project staff prior to the establishment of the quality circle system. The operation of quality circles involves a sequence of steps that include:

- ✓ Problem identification
- ✓ Problem selection
- ✓ Problem analysis
- ✓ Generation of alternative solutions
- ✓ Development of an action plan
- ✓ Presentation of the action plan
- ✓ Implementation of the solution

A facilitator for each quality circle will be identified by the *SOLUCION TB* Project Director.

On a quarterly basis, project staff and key stakeholders (ISESALUD and NGO staff) will meet to review performance indicators/data and discuss relevant critical challenges. At that time, coordinators will also assess the availability of supplies, such as backpacks, pill cases, tracking forms, etc. Quality circles will identify problems and propose one or more alternative solutions that will be presented to management (coordinators, the Project Director, and ISESALUD TB Program Director and managers) for their consideration. The most fitting solutions will be chosen for implementation and follow up. Project coordination teams will regularly assess progress against relevant indicators, including analyses of opportunities and obstacles. Project progress will be verified through findings from the quality circles, review of technical and financial documentation, community files, and interviews with partners or field visits. Program and financial summary reports will be shared with appropriate audiences, including PCI's national, regional, and international offices.

A Quality Improvement manual has been finalized (see Annex 11) and shared with relevant staff and DOTS workers. Curricula based on the Mexican technical norms for TB and DOTS have been developed and used to train project staff. Two supervisory QIVC for trainings and service delivery have been designed and will be used by project staff. Performance standards and QIVC will be shared with DOTS workers. (Please see the table below for a complete list of tools planned for promoting quality of services and program implementation.)

Assessment and Strengthening of M&E Skills

Throughout the course of the *SOLUCION TB* project, M&E skills will be acquired, practiced, and shared by both PCI staff and ISESALUD staff. Qualitative and quantitative data collection, management, and analysis skills will be strengthened for the staff of both organizations. The coordination between these two staff groups will enhance monitoring of the broader TB program in the entire region.

Local and partner staff M&E skills will be assessed regularly and on-the-job training provided accordingly. Training and supervision will be provided by ISESALUD TB managers and by PCI's IO M&E staff in skills such as gathering and maintaining data, generating reports on

treatment success and laboratory capacity, developing and administering satisfaction surveys (including data entry and scoring), and supervising the tracking registries for the *promotora/es*.

SOLUCION TB promotora/es supervisory staff will be trained on the development and application of QIVC tools. Training in these methodologies will be conducted by PCI's M&E unit and technical backstop officers for the project.

In the process of working with prioritized target groups—such as PLWHA, rehab centers, and private physicians—much will be learned and improved. For example, by working with medical school faculty and students to encourage them to promote and utilize DOTS strategies as part of their medical school curriculum, *SOLUCION TB* staff will learn valuable lessons which can be duplicated later when promoting the *SOLUCION TB* model elsewhere.

Tools to Promote Quality of Service

Tool and Source	Purpose	How the Tool Improves Performance	Date Produced
ISESALUD DOTS guide for health workers	Standardize and ensure quality of service	• Used during initial and refresher (annual) trainings to helps ensure quality of DOT activities	• Produced by State TB Program; distributed on 06/05
ISESALUD DOTS wall charts	Promote quality of care and consistency of messages	• Serves as visual aid; memory guide for health workers • Details specific steps/messages to be provided to client/patient	• To be produced in Q4
TB and DOTS training curricula and materials; ISESALUD and PCI	Train Project Staff, DOTS workers and DOTS CHWs	• Strengthens quality of initial and refresher trainings	• Training plan developed on 02/05 • Training plan on Communication and Quality developed on 5/05 • TB education for patients approach adapted from prior projects
Performance Standards (PCI and ISESALUD technical norms)	Train project staff, DOTS workers and DOTS CHWs	• Incorporates standards into training and supervisory checklists	• Incorporated on 2/05, 3/05 respectively; reviewed with *promotora/es* on 5/05
Develop Quality Improvement Manual for SOLUCION TB	Standardize and ensure quality of services via "quality circle" methodology.	• Strengthens capacity to measure and improve quality • Ensures that new DOTS staff are familiar with quality indicators and methodologies	• Quality Manual Developed on 4/05; reviewed with *promotora/es* on 5/05
I-STAR/other Tools for	Facilitate organizational capacity self-	• Identifies areas for improvement • Provides a mechanism for	• I-STAR (*Mesa Redonda*) guideline updated on 06/05

Tool and Source	Purpose	How the Tool Improves Performance	Date Produced
Capacity Building (PCI, EDA)	assessment (emphasis on communication and management) and create improvement plans	following-up on capacity building activities and for assessing progress	
Gender equity indicators list (PCI, ISESALUD)	Assess and promote gender perspective in service provision	• Incorporates gender-related indicators and standards into training and supervisory check lists • Helps staff assess areas needing improvement, and plan accordingly • Strengthens client-satisfaction from a gender perspective	• Identified on 4/05; gender training on 05/05; • Gender training plan developed and implemented 5/05
Client satisfaction indicators	Obtain client feedback on services received	• Promotes definition of quality that includes "client-centered" services • Strengthens quality of service provision • Ensures that national protocols are followed when treating clients • Helps staff assess areas needing improvement, and plan accordingly	• Initial Training on Quality on 5/05; • Additional training on Q4
Quality Improvement Verification Checklists	Strengthen supportive supervision program, which in turn strengthens quality of care	• Identifies areas of improvement in service delivery & guides *promotora/es* and supervisors in maintaining high standards of quality in DOT interventions	• Checklists developed on 02/05 for training & DOT activities; reviewed with *promotora/es* on 5/05
FGD, Informal Interview guides	Standardize process for conducting quality research	• Assures consistency of qualitative research process	• Developed on 03/05 for FG and key informant interviews

Special Studies of High Risk Groups

Two drug rehabilitation centers will be incorporated into the project; one group of TB-Substance Abuse (SA) patients will be in Mexicali, and one in Tijuana, with an estimated 5-10 patients per center. Centers will be selected according to the volume of TB patients they manage, as per ISESALUD's records. *SOLUCION TB* staff will carry out additional formative research prior to the groups' start up on the third and fourth quarters of Year 1. MOUs between PCI and the rehabilitation centers will be signed, and will be based on a performance-based system that will take into account adherence to medical follow-up appointments, follow-up after rehab treatment,

and case-detection referrals. ISESALUD and PCI will carry out training and on-the-job support for center staff assigned to this project. Patients will be assigned by ISESALUD according to *SOLUCION TB* inclusion criteria and will receive medical care. as appropriate, following ISESALUD's norms and protocols. Center and *SOLUCION TB* staff will engage family members' support in order to ensure appropriate continuation of treatment after their rehabilitation treatment concludes. Rehab center staff will participate in quality circles as appropriate.

Co-infection HIV/TB groups will be adapted to the nature of the epidemic in each of the jurisdictions. In Tijuana, a hospice that manages AIDS patients will be a selected site for the group. In Mexicali, no similar facilities exist; therefore close coordination with HIV specialists will take place in order to determine inclusion and feasibility issues. *Promotora/es* will receive training on co-infection, drug interaction, basic counseling skills, and other relevant topics. ISESALUD will work with HIV/AIDS specialists to draft and produce a 'Counseling Guide' for TB patients based on lessons learned in HIV. It is important to note that in Mexicali, the *SOLUCION TB* coordinator is an internationally-recognized AIDS expert who is also a consultant for Pan American Health Organization (PAHO) on this topic. Joint meetings with ISESALUD's AIDS Director and managers will take place to design other specific aspects of the group intervention. During the DIP workshop, Dr. Concepción Meneses, Director of AIDS services for ISESALUD, was an active participant and expressed her interest in continued participation in this project.

Internationally-Recognized Indicators

As the overall indicator of the program's population impact, the *SOLUCION TB* project will use the standard global indicator of treatment success defined in the Compendium of Indicators for Monitoring and Evaluating National Tuberculosis Programs. This guideline will also be applied when comparing the *SOLUCION TB* intervention group to: (1) non-*SOLUCION TB* patients; (2) TB/HIV co-infected patients; and (3) TB-SA patients within SOLUCION TB.

4. Management Table

The *SOLUCION TB* project will operate in the cities of Tijuana and Mexicali in BC, Mexico. The Project Director, Blanca Lomeli, MD, will spend half of her time between Tijuana and Mexicali to oversee program implementation and quality, and will hold regular meetings with project staff, ISESALUD, and other partners. A Project Coordinator, Jesus Madrigal, will be based in Tijuana, and another Project Coordinator, Enrique Gomez, will be based in Mexicali. The Project Coordinators will oversee regular project activities and facilitate communication between PCI, ISESALUD, and local NGO partners.

The Project Director will coordinate with USAID and network with related projects and donors, and will supervise the Project Coordinators in Tijuana and Mexicali who will be responsible for the technical oversight of the project. The Project Coordinators will not only lead and monitor the work carried out by NGO management and staff, but will also work closely with ISESALUD to ensure that all activities are implemented and synchronized. A PCI Community Coordinator in Tijuana will oversee *promotora/es* operations in that city, distribute medications and data collection forms, and serve as a link between the *promotora/es* and the Project Coordinator. Each cadre of *promotora/es* will be assigned to a Project Coordinator (for supervisory purposes

in Tijuana, and for coordination purposes in Mexicali), who will act as liaison with the TB Control Coordinator designated by ISESALUD at the District level. The PCI Project Coordinators and, in the case of Tijuana, the Community Coordinator, will work with the *promotora/es* and/or DOTS workers to coordinate patient assignment with ISESALUD (according to the project's inclusion criteria), distribute medication, and submit weekly reports.

Financial aspects of the project will be managed by a field accountant with supervision by the Project Director and the support of PCI headquarters staff, when needed. Laboratory technicians in Mexicali and Tijuana will conduct smear sample readings at ISESALUD labs, responding to increased demands for follow-up smear sample readings due to this project. Ten DOTS workers will be based at ISESALUD in Mexicali and Tijuana. Each ISESALUD DOTS worker will report directly to the District-level TB Coordinator. As of February 10th in Mexicali, and March 7th, 2005 in Tijuana, all staff had been hired and trained. No positions remain open.

PCI Headquarters' Support for the Project

The staff at PCI-IO will play an important role in this project's monitoring and oversight. The Vice President for Technical Services and Program Development, Janine Schooley, MPH, will provide strategic guidance and technical support to the *SOLUCION TB* project. The project will also receive assistance from Linda Morales, MA, Technical Officer for MCH, who will serve as the technical backstop for this project at the IO and will regularly assess and augment *SOLUCION TB*'s technical quality measures, especially in the areas of capacity building, sharing, and incorporating lessons learned. PCI's M&E unit will also ensure programmatic quality and accountability. A bilingual Regional Desk Officer (RDO) based at IO will liaise with the Project Director and coordinate support as needed from each IO department (Programs, Finance, Administration, Human Resources, Information Technology, and Resource Development), providing well-coordinated assistance to the *SOLUCION TB* Team in terms of technical, administrative, program development and monitoring support.

Janine Schooley and Linda Morales are active members of CORE and several of its working groups; Blanca Lomeli has also been added as a new member to the TB working group, and participated, along with Ms. Schooley and Ms. Morales, in the Spring 2005 CORE meeting. These staff will provide active linkages between the project and CORE, CSTS+ and the CSHGP throughout the LOP.

The following table provides an outline of *SOLUCION TB's* staffing structure. Please refer to Annex 6 for an Organizational Chart detailing lines of authority.

Position	#	Affiliation	Main Responsibilities	LOE	Funding Support
Project Director	1	PCI	Supervision, strategic guidance, technical support, liaise with donors and other related projects (Tijuana)	50%	USAID

Project Coordinators	2	PCI	Supervision and management coordination. Oversight of all project-wide managerial, programmatic and administrative aspects of project, including technical health guidance (Mexicali and Tijuana)	50%	USAID
Community Coordinator	1	PCI	Oversight of *promotora/es* operations in Tijuana. Support/train NGO staff to train communities and health volunteers in mobilization/educational efforts, home visits. (Tijuana)	50%	USAID
Financial Manager/ Accountant	1	PCI	Review and oversight of financial records and budget monitoring. Maintain financial records and follow budget guidelines. (Tijuana)	50%	USAID

The following individuals from technical and implementing partners will also contribute to the achievement of project results.

Position	#	Affiliation	Main Responsibilities	LOE	Funding Support
ISESALUD Program Director	1	ISESALUD	Oversee technical implementation and adherence to ISESALUD's norms and protocols; provide access to periodic epidemiological reports; ensure proper coordination with HIV/AIDS staff at ISESALUD; inform NTB of progress; liaise with PCI; update State Director of Health Services and State Minister of Health on project progress.	30%	ISESALUD
Jurisdiction TB Coordinators	2	ISESALUD	Oversee technical implementation and adherence to norms and protocols, assignment of patients, and communication with ISESALUD health units' directors and TB physicians.	25%	

Lab Technicians	2	ISESALUD	Conduct smear sample readings at ISESALUD (Mexicali and Tijuana)	100%	USAID
DOTS Workers	10	ISESALUD	Conduct home visits of TB patients, dispense medication, conduct patient education (Tijuana and Mexicali)	100%	USAID and ISESALUD
Promotora/es	29	PCI and partner NGOs	Conduct home visits of TB patients, dispense medication, conduct patient education (Tijuana and Mexicali)	100%	USAID (and PCI in years 3 and 4)

5. Work Plan

Strategic Objective (SO): To increase TB treatment success rates and influence national TB efforts by developing and implementing a *"SOLUCION TB"* strategy of Directly Observed Treatment Short Course (DOTS) using *promotora/es* and DOTS health workers. The indicator for this SO is treatment success 58.4%, and *SOLUCION TB's* EOP target is 85%.

Three **Intermediate Results (IRs):**
IR1: The "SOLUCION TB" model implemented in the departments of Mexicali and Tijuana in Baja California
IR2: Political commitment for national and state TB control program improved and sustained
IR3: Quality utilization of TB DOTS components of local medical school curriculum increased

Nine **Lower Level Results (LLRs)** have been identified as needed to achieve the strategic objective. Activities for each lower level result are described in the tables below.

IR1: The "SOLUCION TB" Model Implemented in the Departments of Mexicali and Tijuana in Baja California

Indicators (measurement method):
1. # of TB patients undergoing *SOLUCION TB* DOTS model strategy (project records-*promotora/es* reports)
2. % of all confirmed TB cases being treated by ISESALUD that are following the *SOLUCION TB* DOTS strategy (EPI TB, *promotora/es* reports)
3. % of all confirmed TB cases being treated that are being treated under DOTS - population. (EPI TB) Note: ISESALUD provides coverage to approx. 80% of the State's TB cases.
4. Treatment success rate (% completion plus cure rates) of patients on *SOLUCION TB* DOTS strategy (project records, EPI TB)
5. % of *SOLUCION TB* DOTS strategy patients who abandon treatment (project records, EPI TB)
6. % of TB patients who abandon treatment in DOTS –population (EPI TB)

Major Activities	Activity Focus	Time Frame	Personnel	Benchmarks/ Targets	Status/ Comments
Community	Daily or thrice weekly visits for new TB cases	Beginning Q2 and ongoing	*Promotora/es*	Treatment Completion and Cure for 85%	

				(1,012) for assigned patients	
Health Facility	Daily or thrice weekly visits for new TB cases Monthly reports to Jurisdiction	Beginning Q2 and ongoing	Same as above DOTS workers, clinic directors	Same as above	
Jurisdiction	Patients selection and assignment	Beginning Q2 and ongoing	Jurisdiction-level managers	Decrease to 3% the % of patients who abandon treatment	

LLR1.1: Community-Based Promoter System to Increase Direct Observation of Treatment (DOT) for TB Patients Improved and Expanded

1. # of active *SOLUCION TB* promoter's/DOTS workers identified, recruited, trained in DOTS per TB population (Project records/contracts and EPI TB)
2. Total number of DOT workers absorbed by ISESALUD at EOP (Sustainability Dimension 2)
3. % of *SOLUCION TB* DOTS strategy patients undergoing treatment in accordance with standard treatment protocols -adherence (project records, EPI TB)
4. # promoters/DOTS workers per number of TB cases - caseload (project records)

Major Activities	Activity Focus	Time Frame	Personnel	Benchmarks/ Targets	Status/ Comments
Community	DOT	Beginning Q2 and ongoing	*Promotora/es;* community coordinator	39	
Health Facility	Supportive supervision and TB control	Beginning Q2 and ongoing	SOLUCION TB Coordinators, Health directors, physicians in charge	Monthly meetings (8 yr 1 and 12 each year 2nd-4th)	
Jurisdiction	Patient selection and assignment Training of staff on TB management and control Training of *promotora/es* on QIVC tools & training of supervisors	Beginning Q2 and ongoing Q2 and 3 Yr 1, Q2 and 4 each year Q3 Yr 1, refresher trainings Q3 each year	Jurisdiction managers *SOLUCION TB* Management Team *SOLUCION* Management Team and IO staff	1190 over LOP 85% correct responses in post-test 100% of *promotora/es* and supervisors to be trained	

	Quarterly Quality Circles and coordination between PCI and ISESALUD	Quarterly	Same as above	4 Coordination meetings and quality circles (beginning Q3) per year per jurisdiction	
	Monthly monitoring/supervision visits	Beginning Q2, monthly	*SOLUCION TB* staff and DOTS workers	10% sample of *promotora/es* supervised monthly	
	Bi-annual 'forums' for promotoras from both jurisdictions/training and motivation	Q3 each year	*SOLUCION TB* staff	2 meetings per year	

LLR1.2: Effective Strategies for Reaching Marginalized, High-Risk Target Groups (PLWHAs, Substance Abusers) Developed and Implemented

Indicators (measurement method):
1. % of targeted high risk patients successfully completing SOLUCION TB DOTS treatment regimen (EPI TB, project records)

Major Activities	Activity Focus	Time Frame	Personnel	Benchmarks/ Targets	Status/ Comments
Community	NGO Selection	Quarters 3 and 4 Yr 1	PCI and ISESALUD	2 Rehabilitation Centers	
	Qualitative research	Same as above	PCI and ISESALUD	4 key informant interviews and/or 1 group discussion completed	
	DOT services provided	Q1 Yr 1 and ongoing	Center or *SOLUCION TB* staff	85% treatment success rate	
Health Facility	Medical follow-up as required	Q3 and ongoing	Health clinic physicians	100% patients enrolled will receive medical follow-up	
Jurisdiction	Training and coordination activities for NGO/partner	Q 3 and 4 and ongoing	SOLUCION TB Management Team	85% correct responses in post-test; quarterly meetings	
	Patient selection and assignment	Same as above	Same as above	4 groups (2 in Tijuana and 2 in Mexicali)	
	Training of *SOLUCION*	Q3 and 4,	*SOLUCION TB*	1 initial training	

	TB staff on focus-group and/or T-group and counseling methodology Begin production of Counseling guide for TB patients	annual updates Q4	Management team and IO staff *SOLUCION TB* Management Team	in yr 1, and refresher training in yr 2 Table of contents mutually agreed upon	

LLR1.3: Capacity of Laboratories to Conduct Procedures Improved

Indicators (measurement method):
1. # of qualified (certified) lab technicians hired and trained. (project records, HR records)
2. # of baciloscopies completed by technicians per day (EPI TB, lab technicians records)
3. % of patients who receive 3 control baciloscopies for adequate TB control per MOH TB norms. (EPI-TB) (Sustainability Dimension 1)
4. % of positive baciloscopies rechecked (lab records)
5. % of negative baciloscopies rechecked (lab records)

Major Activities	Activity Focus	Time Frame	Personnel	Benchmarks/ Targets	Status/ Comments
Community	Referral of contacts to health clinic	Q2 and ongoing	*SOLUCION TB Promotora/es* and DOTS workers	85% of contacts to be referred	
Health Facility	Process adequate contact control	Q2 and ongoing	Physicians, clinic staff	85% of contacts properly processed	
Jurisdiction	BKP for TB patients and contacts	Q2 and ongoing	*SOLUCION TB* Lab Technicians	# of BKP processed daily % of patients who receive 3 control baciloscopies 100 % of positive and 10% of negative baciloscopies rechecked	

LLR1.4: Organizational Information and Communication Systems for DOTS Improved and Expanded

Indicators (measurement method):
1. # of ISESALUD TB managers reporting improved communication with colleagues via internet (key informant interviews)
2. % held versus planned meetings for project staff (project records) (Sustainability Dimension 2)
3. # of ISESALUD TB managers reporting utilization of internet-based logic map (project records key informant interviews)

Major Activities	Activity Focus	Time Frame	Personnel	Benchmarks/ Targets	Status/ Comments
Community	No additional activities				
Health	No additional activities				

Facility					
Jurisdiction	Utilization of internet-based system for information and report sharing Adequate and timely communication via email	Q1 Yr 2 and ongoing Q3 and ongoing	*SOLUCION TB* Management Team, IO and ISESALUD key staff *SOLUCION TB* Management Team	5 ISESALUD managers and 7 PCI staff All *SOLUCION TB* staff	

IR2: Political Commitment for National and State TB Control Program Improved and Sustained					
Indicators (measurement method): 1. ISESALUD budget allocations for NTP activities increased (ISESALUD records)					
Major Activities	**Activity Focus**	**Time Frame**	**Personnel**	**Benchmarks/ Targets**	**Status/ Comments**
Community	Enhance community support for TB control	Beginning Q3 and 4 and ongoing	*SOLUCION TB* Management Team	2 Rehabilitation Centers participating	
Health Facility	Increase physicians' awareness of TB control activities	Q4 each year	ISESALUD and PCI staff	1 annual update seminar/forum/ communique	
Jurisdiction	Establishment of HIV-TB-Substance Abuse Committee Establishment of Stop TB Committee to coordinate/enhance TB control Meetings and contacts with legislators and decision-makers	Q1 Q3 Q4 and ongoing	ISESALUD and other government staff Same as above *SOLUCION TB* Management Team	1 HIV-TB-SA committee established 1 Stop TB control Committee established 10 meetings/ contacts per year	

LLR2.1: *SOLUCION TB* Model Strategy Approaches, Tools and Results Documented and Effectively Shared					
Indicators (measurement method): 2. # of individuals receiving information on results, model approaches, lessons learned and tools (project records) 3. Number of individuals attending *SOLUCION TB* seminars (seminar attendance logs) 4. Number of social service clubs (Lions, Rotary, etc.) made aware of TB control needs and *SOLUCION TB* activities. (project records) (Sustainability Dimension 3) 5. % of physicians having attended a *SOLUCION TB* seminar who report willingness to provide appropriate referrals to DOT providers (key informant interviews)					
Major Activities	**Activity Focus**	**Time Frame**	**Personnel**	**Benchmarks/ Targets**	**Status/ Comments**
Community	Medical associations will host and/or	Q4 Yr 1, Q2 and 4 Yrs 2-4	*SOLUCION TB* management team	4 seminars per year	

	support seminars Enhance social support for TB control activities	 Q3 and ongoing	 *SOLUCION TB* Management Team	 2 Social Service Clubs supporting *SOLUCION TB* and other TB activities (Sust. Dimension 3)	
Health Facility	Selected Health Clinic staff to participate in seminars	Beginning Q4 and as appropriate	ISESALUD staff	At least 10 health clinic/and DOTS workers per year	
Jurisdiction	Plan, coordinate and implement TB seminars Tool kit and materials produced and distributed Lessons Learned Seminars	Q4 Yr 1, and Q2 and 4 Yrs 2-4 Q4 Yr 1 and Q1 Yr 2 (updates as needed) 1 at MT 1 at EOP	*SOLUCION TB* Management Team Same as above SOLUCION TB staff, school faculty & private physicians	4 seminars per yr (100 participants per yr) 1 Tool kit on *SOLUCION TB* (100 individuals/ year to receive information on model and results) 2 seminars per LOP	

LLR2.2: Dialog about Improving TB Policy Increased					
Indicators (measurement method): 1. # of contacts established with key decision makers by *SOLUCION TB* staff/partners (project records, meeting logs) 2. # of key decision makers that report increased participation in TB policy influencing activities as a result of contacts with *SOLUCION TB* (project records, key informant interviews)					
Major Activities	**Activity Focus**	**Time Frame**	**Personnel**	**Benchmarks/ Targets**	**Status/ Comments**
Community	NGO partners to participate in key informants selection Meetings with key legislators and decision makers to promote TB control	Q3 and 4 and ongoing Q3 and 4 and ongoing	Selected NGO partners *SOLUCION TB* staff	2 NGO partners staff 5-10 meetings per year	
Health Facility	Update key clinic staff on *SOLUCION TB* progress, TB	Q4 Yr 1, and Q2 and 4 Yrs 2-4	*SOLUCION TB* Management Team	30 key staff per jurisdiction to receive regular updates	

	status and control				
Jurisdiction	SOLUCION TB staff to produce advocacy plan Facts sheet produced for advocacy activities	Q3 and 4 Q4 each year	*SOLUCION TB* Management Team *SOLUCION TB* Management Team	1 Advocacy Plan produced 1 Fact sheet per year	

IR3: Quality Utilization of TB DOTS Components of Existing Local Medical School Curriculum Increased					
Indicator (measurement method): # of training plans demonstrating quality utilization of TB DOTS component. (Project records)					
Major Activities	**Activity Focus**	**Time Frame**	**Personnel**	**Benchmarks/ Targets**	**Status/ Comments**
Community	DOTS strategy promoted in medical schools	Q4 each year	*SOLUCION TB* Management Team	1 seminar/year/ city with 25 students and/or faculty	
Health Facility	No intervention				
Jurisdiction	Meetings with medical school directors to promote DOTS & encourage medical school directors to include in training plans	Q4 each year	*SOLUCION TB* Management Team	2 meetings per year with medical school directors in both Tijuana and Mexicali) 3 training plans per university (6 total)	

LLR3.1: Increased Participation of medical school faculty in *SOLUCION TB* Events					
Indicators (measurement method): 1. # of interviews/meetings with medical school directors to promote the importance & use of DOTS within the medical school curriculum. (Project records) 2. # of medical school faculty participating in DOTS seminars/field work who report their commitment to DOTS strategy and to teaching about DOTS as part of their medical school course load (one-day sessions on campus and/or 1 day field work with a *promotor/a* or DOTS supervisor) (project records, seminar attendance logs)					
Major Activities	**Activity Focus**	**Time Frame**	**Personnel**	**Benchmarks/ Targets**	**Status/ Comments**
Community	DOTS strategy promoted in medical schools	Q4 each year	*SOLUCION TB* Management Team	1 seminar/year/ city with 25 students and/or faculty	
Health Facility	No additional intervention				
Jurisdiction	Meetings with	Q4 each year	SOLUCION TB	2 meetings per	

	medical school directors to promote DOTS		Management Team	year with directors in Tj and Mexicali	

LLR3.2: Number of Students Participating in Hands-On DOTS Field Work Increased.					
Indicator (measurement method): # of medical students participating in DOTS seminars/field work (one-day sessions on campus and/or one-day field work with a *promoter/a* or DOTS supervisor) (project records, seminar attendance logs) who report their commitment to utilizing/supporting DOTS strategy in their future practices.					
Major Activities	**Activity Focus**	**Time Frame**	**Personnel**	**Benchmarks/ Targets**	**Status/ Comments**
Community	Familiarize students w/ DOTS strategy	Q4 each year	*SOLUCION TB* Management Team	1 seminar/year/ city with 25 students &/or faculty on campus	
Health Facility	Familiarize students with DOTS strategy at clinic level	Q1 in years 2-4	*SOLUCION TB* Management Team	2 different clinics/per jurisdiction receive visits from students each year	
Jurisdiction	Familiarize social service students (medical school residents) with DOTS strategy at jurisdiction level	Q1 in years 2-4	*SOLUCION TB* Management Team	75% of medical school residents will attend DOTS presentation at the jurisdiction level	

Responses to Application Debriefing Summary Sheet FY 2004

(See Technical Reviewers' Comments in Annex 1B)

Comments Regarding the Budget (including line-items for MTE and FTE and procurement of drugs) (p. 1 and 3)
Please see separate email sent to D. Doo-Soghoian on 20 May 2004 from Linda Morales and copied at the end of this annex. Please note: during the agreement negotiation process in September 2004, PCI was asked by USAID to make additional changes to the budget. These are noted below.

Comments Regarding PCI's TB Capacity and Capacity-building Plans (pp. 2, 4, and 5)
PCI feels that we have a good base of in-house capacity in TB to build upon. The Project Director and the Mexicali-based Project Coordinator are both "public health physicians"; even though they do not have MPH degrees, they have years of experience in community-based TB control in a developing country. Project staff, in general, have impressive backgrounds in community-based health programming. For example, Dr. Enrique Gomez (PCI Coordinator in Mexicali), Dr. Jesus Madrigal (PCI coordinator in Tijuana), Dr. Eva Mendoza (Community Coordinator, Tijuana) and Dr. Blanca Lomeli (Project Director) have been working with PCI's US/Mexico Border Health Programs for a combined total of over 49 years. Tuberculosis, HIV/AIDS, and Substance Abuse have been the main focus areas for border programs. Dr. Lomeli, who recently completed her 20th anniversary with PCI, is the PCI representative for Ten Against TB, a border-wide TB control and prevention initiative along the US-Mexico Border. She also oversees the PCI/Border Health Initiative (BHI) which has implemented a broad array of public health programs with a significant emphasis on TB. Dr. Lomeli has overseen the implementation of several DOTS projects for local and bi-national TB patients, including a project with the San Diego County's Health and Human Services Agency to ensure DOTS treatment was available for TB patients crossing the US/Mexico border, and from 2000-2003, a TB community mobilization program funded by the US/Mexico Border Health Commission, targeting difficult-to-reach TB patients in Tijuana, Mexico. She has designed and implemented HIV/AIDS prevention, trainer-of-trainers curricula that was utilized with over 300 teachers and health workers and benefited over 20,000 students in Baja California and Chihuahua, Mexico. Dr. Gomez has served as the Program Coordinator for the BHI since 1999, with an emphasis on TB, HIV/AIDS, and substance abuse. Dr. Gomez has primary responsibility for the management, design, implementation, and evaluation of PCI-BHI's programs in Mexicali, Baja California, Mexico. Gomez possesses over 10 years of experience in HIV/AIDS and other infectious diseases, and serves as an active member of the US/Mexico Bi-national Committee for HIV/AIDS, TB, and Substance Abuse of the Imperial Valley of California and Mexicali, Mexico. Gomez currently practices medicine for the treatment of HIV/AIDS patients, has experience working with co-infected patients, and serves as an international advisor/consultant for the Pan American Health Organization (PAHO). Dr. Madrigal and Dr. Mendoza have been working with PCI since 1998 and 1987 respectively and have extensive experience working with community-based HIV and TB issues.

PCI agrees that PCI's local partners could benefit from strengthened capacity in TB control. Capacity building will be a focus throughout the project and opportunities will be proactively sought. For example, TB-specific capacity building of project staff began as soon as recruitment was initiated. In early January 2005, PCI's SOLUCION TB *promotora/es* participated in training on co-infection issues organized by the San Diego County Department of Health and Human Services, TB Department, and facilitated by Dr. Ronelle Campbell. Between February and March, all PCI

SOLUCION TB project staff participated in a 2-day SOLUCION TB training carried out by ISESALUD, in Mexicali and Tijuana. Training topics included: the Epidemiological Panorama of TB in Baja California; Signs and Symptoms of TB; TB Diagnosis and Treatment, and other key issues. In addition, in late March, IO staff participated in a TB conference organized by UCSD, the San Diego County Department of Health and Human Services, and the American Lung Association in San Diego.

Please refer to **Section C. 3. Follow-up Activities and E. 2, Training Strategy** for more information about the project's plans for capacity-building throughout the LOP.
PCI and ISESALUD have collaborated so closely over the years and as a result, in practice the staff of the two agencies see themselves as operating as one organization. When PCI refers to its "in-house" capacity, this includes much more than the PCI staff, but also the TB expertise within ISESALUD, specifically, Drs. Morales, Paris and Felix. In addition, PCI has worked very closely with Dr. Kathy Moser of the San Diego County Health and Human Services Department in the apst and Dr. Moser and her staff have committed to provide ongoing technical assistance PCI's TB programming.

Comments Regarding Letter of Support from Dr. Ferreira (p. 2)
A final letter of support was obtained from Dr. Ferreira in December 2004, and is on file at the PCI office.

Comments Regarding Coordination with Bi-national TB Card Program and How the Project will Address the Challenge of Working with a Highly Mobile Population (p. 2, 3, & 5)
The project is in close coordination with local efforts on both sides of the border with respect to the Bi-national TB card and ways to ensure that TB patients are not lost from the system when they migrate across the border. PCI is in constant communication with TB officials from the San Diego County Health Department, who manage the CURE TB program; this program serves as a referral center for patients crossing the border to San Diego. On the Mexico side of the border, and in accordance with existing ISESALUD protocol for the TB card, all Tijuana SOLUCION TB participants will receive the bi-national card. At the time of writing this DIP, no plans for including Mexicali in the TB card protocol existed.

After the DIP workshop, on April 4th, ISESALUD, who manages the TB card project in collaboration with the National TB Program, participated in a top-level meeting where staff discussed progress to date and future plans for the TB card project. One result of this meeting was the decision that the TB cards will be reviewed and updated in the near future. The incorporation of these updates and any future decisions regarding use of the TB card within the SOLUCION TB project, will be made jointly by PCI and ISESALUD. Also, since some of the migration is internal (either between different health centers in the same jurisdiction, from jurisdiction to jurisdiction, or from state to state), SOLUCION TB will follow ISESALUD (and thus NTP's) protocol for case referrals. Staff hired under this project to provide administrative follow-up, review and analyze records and reports, will strengthen and support quality management of referrals. During recent conversations with ISESALUD staff, the main challenge of migration faced in Baja California is the one about internal migration, as cases from other areas of Mexico contribute to the higher rate of TB infection in Baja California. During the recent evaluation of the Binational TB Card only a small portion of patients have reported having migrated and utilized the card. PCI staff will continue working with ISESALUD to further analyze the implications of migration for TB control

in Baja California, and explore mechanisms to address it. PCI will also continue collaborating with San Diego County's TB program on binational TB patient management.

Comments Regarding Clarification of Roles and Relationship Between BC State Program, ISESALUD, and NTP (p. 2 and 5)
TB Control activities for the country are based on the country's TB norms and protocols, defined and overseen by the National TB program (NTP). At the state level, within the Ministry of Health, the normative arm regulating health in the state of Baja California, ISESALUD, represents the operational branch of BC's MOH (*Secretaria de Salud*) implementing health programs for vulnerable populations. As part of their mandate, the prevention and control of tuberculosis are managed by ISESALUD's State Mycobacteriosis Program (including Leprosy and TB).

The proposed intervention fits within Mexico's MOH system, of which the NTP is part. The National Mycobacteriosis Program (for TB and Leprosy) sets the technical norms, standards and objectives for TB prevention and control. Each state in turn includes Mycobacteriosis (TB prevention and control) programs, which regulate and implement TB prevention and control efforts. SOLUCION TB is a complementary intervention within the national and state MOH, and ISESALUD's system. As such, this project is supporting one of their programs, in this case that of TB prevention and control. The relationship between the project and the NTP is that the state TB program follows TB norms and regulations set at a national level by the NTP. The NTP oversees technical implementation of TB activities, coordinates nation-wide projects and sets goals and objectives in coordination with state TB programs. The NTP oversees implementation and follows-up on population-based indicators. The state TB programs provide NTP with implementation information, statistics and TB rates. EPI- TB, the epidemiological system for TB data, is overseen by NTP, and each of the states upload information to the system. NTP reports to the Vice-Minister of Health directly, who in turn reports to the Minister of Health. The state TB program reports to both the NTP Director and the State Director of Health Services, who in turn reports to BC's State MOH. The State TB Control Program, thus, is part of ISESALUD, but is technically regulated by the NTP.

It has been agreed that although the target population for this project (representing about 40% of the State's TB new Pulmonary TB caseload) will be closely followed to monitor progress and quality, *promotoras*/*es* supported by the project will be able to support DOT for other non-SOLUCION TB patients. *Promotora/es* assigned to a health center, will carry out DOT activities for SOLUCION TB patients, and will have an opportunity to supervise medication intake for other non-SOLUCION-TB patients who go to the clinic for medical check-ups.

Comments Regarding the Phasing-in of *Promotora/es* & Sustainability of Results (p. 3)
ISESALUD has verbally agreed to a plan for phasing in some of the project workers (4 of the DOTS workers, and 1 of the lab technicians) during the life of the project. A clause in the MOU (now being reviewed for signature by the BC State Congress) indicates a commitment to this phase-in plan. If fact, PCI staff have been impressed by the co-ownership that ISESALUD has already demonstrated regarding the project. ISESALUD staff have reiterated that they consider the SOLUCION TB project to be one that supports and will strengthen the impact of existing TB control measures. As such, they view it to be appropriately responding to the needs and

epidemiological profile of TB in Mexicali and Tijuana. They have made all relevant staff available when necessary for coordination and implementation.

Additionally, PCI has identified the US-Mexico Border Health Commission (which funded some of PCI's previous TB programs in the region- please see updated note below) and other potential donors (such as The Ford Foundation, Kyocera, Atkinson Foundation, the International Community Foundation, and others) who will be contacted to explore match funding possibilities and to absorb EOP expenses to support the *promotoras* and future expansion of the SOLUCION TB model. Project staff participating in the DIP workshop also identified Social Service Clubs such as Rotaries, and other private and public sources in Mexico (*Centro Coordinador Empresarial*, INDESOL, among others) as potential funding sources for this project. The issue of funding TB control activities will also be addressed as part of the project's advocacy objectives.

SOLUCION TB staff participated in a recent proposal preparation process to provide additional funds to further support TB efforts in BC; the process was led by ISESALUD and the San Diego County Health Department's TB program. As previously mentioned, SOLUCION TB also collaborates with the county's bi-national TB patient project. PCI has been collaborating with the border-wide headquarters, and the BC and California State offices of the US-Mexico Border Health Commission which confirmed on April 14 that our request for complementary funding for TB activities has been approved for $50,000. The Commission's office in Tijuana has made a commitment to provide occasional office space and other in-kind resources in support of the project. The project has already begun to take advantage of these offers of support by utilizing their office for the training for *promotoras* and for meetings with partners and potential donors. PCI has actively participated in the Ten Against TB (TATB) strategic planning processes for the border and the Californias in particular. As TATB becomes the technical branch for TB for the US-Mexico Border Health Commission, even closer collaboration is anticipated. PCI has also supported and provided technical assistance to HIV/STI, TB and substance abuse bi-national committees undertaking prevention and control efforts overlapping these 3 border priority health areas. PCI's partner, ISESALUD, will also provide medications to treat TB patients valued at $160,000 for the life of the project ($40,000/year).

Comments Regarding HIV/AIDS Co-infection (p. 4)

Please see p. 1 of this annex for a discussion regarding capacity and capacity-building plans for co-infection issues for the SOLUCION TB staff. Please also note that the HIV/AIDS state and jurisdiction coordinators participated in the DIP workshop, where they expressed their commitment to continue supporting SOLUCION TB activities and to exploring mechanisms for strengthened collaboration. Dr. Enrique Gomez, SOLUCION TB Coordinator for Mexicali is a PAHO consultant who recently collaborated in the publication of "Guia sobre Atencion Integral de personas que viven con la Co-infeccion de TB/VIH en America Latina y el Caribe" (Guide on Integrated Care for Persons Living with the co-infection of HIV/TB in Latin America and the Caribbean), Washington D.C. OPS 2004. SOLUCION TB will further address co-infection and HIV/TB collaboration issues as part of its core interventions with high risk populations. SOLUCION TB project staff from PCI and ISESALUD will advocate with HIV/AIDS NGOs and ISESALUD colleagues to encourage referrals for PLWHAs to be tested for TB. PCI staff are members of the Binational HIV/STI San Diego-Tijuana committee, the Imperial Mexicali Health Alliance (both comprised of public/private members, and addressing HIV prevention and control issues at the border in Tijuana and Mexicali, respectively) where additional coordination activities will be promoted (or something like that). PCI

is also a community member of the recently incorporated HIV/TB Committee and the STOP TB committee for Baja California. Both instances represent additional venues for the exploration of additional venues to strengthen HIV/TB co-infection strategies.

Please refer to page 6 of the above mentioned publication for the following statement "Pulmonary TB is the most frequent clinical form of Tuberculosis occurring in PLWHA". Other discussions with County Health Department officials have also confirmed the accuracy of this statement which was included in the original proposal.

Comments Regarding Coordination and Communication with NTP (p. 4)
The SOLUCION TB project is fully consistent with and not duplicative of the NTP implementation plans and excellent communication channels exist between the ISESALUD TB Program Director and the NTP Manager, as well as between the PCI Program Director and the USAID/Mexico Health Program Manager. PCI will continue to work to ensure close collaboration and coordination with the NTP on all aspects of the program.

From Email sent to Dana P. Doo-Soghoian on 20 May 2004 from Linda Morales
(please note this email has been edited to show slight updates determined during the DIP process)

1. The budget narrative does not explain each of the personnel positions or responsibilities related to the project. Please elaborate.

This information is included in section VI. of the technical proposal (Management Plan). Relevant information has been cut and pasted below.

The **Project Director**, Dr. Blanca Lomeli, a physician by background, has worked for PCI for more than 20 years and is a bi-lingual, bi-cultural, Mexican national. She is highly respected by fellow physicians, political officials, private and public sector health leaders, as well as within the NGO community, as a leader in health issues affecting the US/Mexico border region. Through her extensive experience in overseeing TB initiatives, including sub-grants to partners, development of a video on TB for policy makers, and coordination of the design, implementation and evaluation of DOTS projects for local and bi-national patients and as the PCI representative on the Ten Against TB committee, she has developed excellent relationships with key stakeholders for TB activities, including District and TB coordinators and NGOs working in HIV/AIDS and TB.

The SOLUCION TB project will operate in the cities of Tijuana and Mexicali in BC, Mexico. Currently, PCI has an organizational structure designed to address border and bi-national priorities, including TB. Offices in Mexicali and Tijuana along with San Diego, California, are part of the US-Mexico region infrastructure. To the project's advantage, the Project Director has spent the majority of the last 20 years implementing and overseeing projects in Mexico, particularly its Northern Border, and for more than 7 years has overseen bi-national programs in California and Mexico. The project director will spend half of her time between Tijuana and Mexicali to oversee program implementation and quality, and will hold regular meetings with project staff, ISESALUD and other partners. The Project Director's base at PCI's National City office is located within 20 minutes driving distance from the Tijuana office, while PCI's Mexicali office is located within 2 hours driving distance from either San Diego or PCI's Tijuana office. The PCI office in Mexicali is located at the *UABC* campus, next to the School of Medicine, another one of the implementing partners, and two blocks from ISESALUD's main office. One **Project Coordinator** based in each

city will oversee project activities and facilitate communication between PCI, ISESALUD and local NGO/Rehab Center partners. ISESALUD will make final selection of neighborhood/health units, based on mutually agreed upon inclusion criteria. Planning and monitoring/supervision will be done jointly as well as the development of training curricula, baseline data collection and evaluation and monitoring instruments in order to ensure the broadest possible support. Project Coordinators also have existing working relationships with ISESALUD and NGO/Rehab Center partners. This will greatly facilitate project coordination and communication.

*Human Resource Management***:** The Project Director will coordinate with USAID and network with related projects and donors and will supervise the Project Coordinators, one in Tijuana and one in Mexicali who will be responsible for the technical oversight of the project. The Project Coordinators will not only lead and monitor the work carried out by NGO management and staff, but will also work closely with ISESALUD to ensure that all activities are implemented and synchronized. A PCI **Community Coordinator** in Tijuana will oversee *PCI-promotora* operations in that city, distributing medications and data collection forms, and serving as a link between the *promotora* and the Project Coordinator. Financial aspects of the project will be managed by a **Financial Manager/Accountant**, with supervision by the Project Director, and the support of PCI headquarters staff when needed. **Laboratory technicians** in Mexicali and Tijuana will conduct smear sample readings at ISESALUD labs, responding to increased demands for follow-up smear sample readings due to this project. Please refer to the following chart for the distribution of *promotoras/es* and DOTS workers:

Promotora/es/DOTS workers Distribution

	PCI Tijuana	ISESALUD Tijuana	ISESALUD Mexicali	ISESALUD State level	Total
Promotoras/es	9	10	9	0	28
DOTS workers	0	6	4	1	11
Total	9	16	13	1	39

For coordination purposes, each cadre of *promotoras* will be assigned to a Project Coordinator, who will act as liaison with the TB Control Coordinator designated by ISESALUD at the District level. The PCI Project Coordinators, and in the case of Tijuana, the Community Coordinator, will work with the *promotoras/*DOTS workers, and ensure that DOT activities are carried out as planned, and that promotoras/es have access to necessary formats and supplies. Medical follow-up of patients will be carried out by ISESALUD as part of their TB program protocols. ISESALUD will carry out technical oversight of the project, as per existing norms. .

PCI Headquarters' Support for the Project: The staff at PCI-IO will play an important role in this project's monitoring and oversight. The Vice President for Technical Services and Program Development, Janine Schooley, will provide strategic guidance and technical support to the SOLUCION TB project. The project will also receive assistance from Linda Morales, Technical Officer for MCH, who will serve as the technical backstop for this project at the IO and will regularly assess and augment *SOLUCION TB*'s technical quality measures, especially in the areas of capacity building, sharing, and incorporating lessons learned. A Monitoring and Evaluation unit will also ensure programmatic quality and accountability. A bilingual Regional Desk Officer (RDO) based in IO will liaise with the Project Director and coordinate support as needed from each department (Programs, Finance, Administration, Human Resources, Information Technology, and

Resource Development), providing well-coordinated assistance to the SOLUCION TB Team in terms of technical, administrative, program development and monitoring support.

2. Please clarify/elaborate the issue of $40,000/year budgeted for drugs.
Under Section E. of the budget narrative, it states: "PCI's partner, ISESALUD, will also provide medications to treat TB patients valued at $160,000 for the life of the project ($40,000/year).
(Please note, the project will not be purchasing additional medications, but rather will receive them directly through ISESALUD; proposal development staff were attempting to show the estimated dollar value of these medications as a match contribution from ISESALUD.)

3. Under Contractual Services, 2 sub-agreements or subcontracts are being budgeted for 2 NGOs. Describe the procurement process used to obtain these NGOs for $31,270 each.

The two NGOs will each receive a $16,135 sub-grant to increase community-based support for TB treatment and control and for high-risk cohorts, and ensure transportation for medical and DOT services. Given the project's objectives and cohort definition, ISESALUD and PCI will select and invite to participate, a total of two Drug rehabilitation centers based on strict selection criteria as defined by the project.

4. How did PCI calculate/determine the consultant's daily rate of $800? This amount appears excessive.

This rate is based on recent quotes received by PCI for a final evaluation consultant based in San Diego, California (and reflects a "loaded rate"). Prior to recruiting any consultants, PCI will revisit this amount and attempt to seek out qualified candidates with a lower daily rate.

5. Under the budget category, OTHER, training for 50 CHWs is proposed at $12,000 (transportation, food, lodging). How long is the training period and what method of transportation is being used for these participants?
The budget includes 3 trainings per year at a cost of $20/community health worker (50 community health workers per training). One initial and refresher trainings are planned on a yearly basis. An additional two meetings per year to assess progress and increase motivation have been scheduled during the DIP preparation process.

6. Same budget category as in #5, rent is proposed for $40,163. Is this amount a yearly rate or for the entire agreement period?
This amount is for the life of the project.

7. Under EQUIPMENT, describe the vehicles being proposed and purchased at $4,900 each.
Based on guidance received from the USAID Contract Specialist, Erika Eam, PCI is unable to purchase vehicles with project funds. For this reason, PCI has deleted this line item.

8. Same budget category as in #5, repairs and maintenance, are those amounts for the entire agreement period? $4,800 is proposed for vehicles. Describe the vehicles, cost per unit, etc., and if vehicles are being purchased under this agreement, the procurement process used to obtain these vehicles.

The repairs and maintenance budgeted under Category H (V) are for the life of the project. As mentioned under question 7, based on guidance received from USAID, PCI is unable to purchase vehicles under this agreement using USAID funds. PCI will therefore work with local partners and private donors to identify 3-4 vehicles to be used to transport community health workers from one community to the other.

9. What is a non-US government vehicle that USAID is paying for repairs and maintenance? Is this non-US government vehicle purchased with USAID funds? If not, why not?
The vehicle used as counterpart contribution belongs to the SOLUCION TB Project Director. It was purchased with Hilton Foundation funds several years back. The SOLUCION TB Project Director will be making frequent trips from Tijuana, BC, Mexico to Mexicali, BC, Mexico as to ensure optimal program implementation.

10. Same budget category as in #5, what kinds of repairs and maintenance is being proposed for Tijuana (twice) and Mexicali in the amount of $2,400 and $4,800 and for what kinds of vehicles?

The $2,400 includes building repairs and maintenance for the Tijuana Office for the life of the project. The $4,800 includes office equipment repairs and maintenance for the Tijuana and Mexicali office for the life of the project.

11. Same budget category as in #5, under Communications and Utilities, the proposed rates are ($19,000 through $2,240) are monthly rates?
These amounts are for the life of the project. These amounts include a portion of the total cost. The remaining amount is covered by PCI through other funding sources.

12. Same budget category as in #5, the listed line items beginning with Bank fees ($1,200) and ending with advertising at conferences ($1,800) are proposed for the duration of the agreement or are they monthly rates?
These amounts are for the life of the project.

13. The budget narrative did not contain or include information on baseline, MTE, and FE budget requirements. Why?
$16,000 is included in the budget for a final evaluation consultant as a PCI counterpart contribution (included under contractual services- match). PCI has budgeted 4,000 for a baseline consultant and 4,000 for a midterm evaluation consultant.

14. Who will be the designated Key Personnel under this agreement?
Key personnel include:
Blanca Lomeli, North America Regional Director/SOLUCION TB Project Director
Jesus Madrigal, Project Coordinator – Tijuana
Enrique Gomez, Project Coordinator – Mexicali
Linda Morales, Technical Officer for MCH—San Diego

GH/HIDN Child Survival and Health Grants Program
Debriefing Summary Sheet
FY 2004

PVO: PCI
Country: Mexico
Category: Standard

Categories	Entry	Mentoring	Standard	Cost Ext	Expanded
Number reviewed	12	0	34	8	13
Number funded	3	NA	8	2	5
Highest score	86.61	NA	97.83	94.73	98.91
Lowest score	43.42	NA	78.87	80.26	77.10
Funded upward	80.00	NA	94.00	94.00	95.00
PVO App. Rank	NA	NA	4	NA	NA
PVO App. Score	NA	NA	95.00	NA	NA

Individual Category Scores: (Maximum Points in Parentheses)

Budget	Executive Summary	PVO Applicant	Situational Analysis	Program Strategy and Interventions	Performance M&E	Management Plan	Collaboration w/USAID Mission	Total Points
(3)	(2)	(5)	(25)	(30)	(25)	(5)	(5)	(100)
2.78	1.93	4.81	23.31	28.88	23.44	4.86	5.00	**95.00**

Name of PVO Applicant: Project Concern International
Name of Country: Mexico
Application Category: Standard

BUDGET INFORMATION

Strengths

The SF 424, detailed budget, & budget narrative are complete, funds & costs are realistic, and program activities are adequately budgeted.

Weaknesses

The budget narrative does not explain each of the personnel positions or responsibilities related to the project. The applicant needs to clarify the issue of $40,000/year allocated to drugs. The "other category", except for communication and activities, is not detailed enough. The applicant did not include information on baseline, MTE and FE budget requirements.

EXECUTIVE SUMMARY

Strengths

The applicant has provided a comprehensive summary of the proposed program.

Weaknesses

None noted.

DESCRIPTION OF THE PVO APPLICANT OR PROGRAM

Strengths

PCI's purpose, mission, and major sectors of activities are presented and are congruent with the proposed project.

PCI has been working in partnership with USAID under the CSHGP from its inception in 1985.

The applicant reports that PCI has developed organizational technical expertise in the design and implementation of TB programming in the US/Mexico border region, India, Indonesia, and Zambia.

The applicant identified and discussed gaps in the TB DOTS program in Mexico.

Weaknesses

A primary focus on TB control is a relatively new area for the applicant (at the level of focus required by the proposed program). While applicant staff has familiarity and some experience with TB issues, the applicant and local partners could benefit from strengthened capacity in TB control and should ensure that they have in-house person(s) with public health TB control expertise.

SITUATIONAL ANALYSIS

Strengths

PVO has provided a comprehensive overview of the current health status of the population, existing services, socioeconomic characteristics, household behaviors and care-seeking and other parameters are well presented.

Clear TB morbidity and mortality data of the region of interest and the country provide an excellent epidemiological picture.

Relevant stakeholders appropriately involved in this project will be ISESALUD [The public sector state health service], BC State Program for Prevention and Control of Tuberculosis, UABC and Xochicalco University, and local NGOs.

The key potential partners have supplied letters of support.

Weaknesses

A final letter of support from the NTP Manager, Dr. Ferreira, should be obtained as it is essential that the NTP be fully supportive of the aims and approaches of this proposed project.

The applicant mentioned that this population was a migrant population, or a highly mobile population, yet they provide no informatio throughout the proposal on how they would address this challenge.

There was no mention of the Bi-national TB Card Program in this region.

The applicant should clarify the BC state TB program versus ISESALUD versus the NTP. How do they all fit together and what are their respective roles.

PROGRAM STRATEGY AND INTERVENTIONS

Strengths

The strength and originality of this application rely on the existence of proven successful, trained and motivated community-based promotoras to assure TB treatment compliance in observing 95% of medication intakes through daily or thrice weekly home visits (DOTS). This is a community-based patient-centered system which will rely on community-based health promotion and disease prevention networks PCI has already established in the communities.

The applicant has experience in working with local partners in the region and has a good knowledge of health and relevant social issues. It is known from other sources that the program of using promotoras is consistent with the MOH approach.

The applicant gives a detailed description about how they will increase access to DOTS (recruitment, training, equipping of DOTS workers and patient enrollment). These efforts will fill the gaps identified in the situation analysis, such as the low TB cure rate in the targeted region.

Weaknesses

The costs to support the program in order to achieve results are high. While the applicant mentions the issue of sustainability after the project ends, they provide no indication that the MOH would be willing to support the program nor is there a plan for phasing in (during the life of the project) an increasing role by the MOH (or other funders) to support promotoras incentives.

This program will target a migrant population (not only one that immigrates to the target geographical area, but one that emigrates out of it -- e.g., to the U.S.). Given this and that treatment covers a long period of time, the authors do not discuss how the program will address the issue of strengthening continued treatment of persons when they migrate either across the U.S. border (or potentially elsewhere). Increasing access to treatment on one side of the border without a mechanism to continue treatment on the other side has the potential for poor treatment outcomes or, even worse, the development of TB drug resistance. There are bi-national interventions that are addressing this on this side of the U.S./Mexico border and incorporation of involvement in the Bi-national Card system (and other efforts) should be a pre-requisite for support of this proposal. The applicants should ensure that they coordinate with others working on Bi-national projects (e.g., CDC and Mexico NTP) and that before embarking on this project, they incorporate "lessons learned" from program implementation on this and other US/Mexico border regions.

The applicants intend to provide TB drugs at $40,000 per year for the program (see budget). In the situational analysis, there is mention that current ISESALUD health centers have sufficient stock of TB pharmaceuticals. If it is the role of the NTP to provide TB drugs, why is the project including $40,000 per year in the budget (as cost share)? If the applicant is proposing to provide TB drugs, the applicant should explain how this relates to GOM policy as well as addressing the issue of sustainability of this after the project ends.

There is some discussion of the HIV/AIDS issues in the target area. Although this might be beyond the scope of the proposed intervention (or capability of the organization), given that this group has experience in the area of HIV/AIDS, the project might consider efforts to encourage referral for VCT in TB patients and of HIV/AIDS patients for referral for TB diagnosis, and capacity building of staff (e.g., promotoras) in co-infection issues. The applicants should ensure that the proposed project is fully consistent with and not duplicative of National TB Program implementation plans (or equipment supplied) and that good communication is established with the National TB Program manager (as well as USAID/Mexico TB Program Staff).

There is an incorrect statement included in the proposal on page 21 on TB/HIV co-infection. The following statement, "In HIV-infected patients, pulmonary TB is the most common form of tuberculosis..," should be corrected to read "…extra-pulmonary TB is the most common form of TB".

PERFORMANCE MONITORING AND EVALUATION

Strengths

The applicant clearly described the process to gather, analyze and use data in the management of the proposed project.

The indicators to measure objectives are consistent with globally and/or nationally accepted standards.

The applicant is aware of the WHO TB M&E system and intends to develop a variety of levels of indicators that could be used to evaluate the technical part of their intervention that will be based on the outcome of the current effort by the TB community to develop a set of "process" indicators.

The applicant has experience in the area of community-based health programs and has developed a monitoring and evaluation system to address that aspect of their intervention. The applicant mentions that the PVO will work within the existing local, state and national reporting and tracking mechanisms and this will be a key in assuring that all TB cases detected and treated are registered in the national data system.

Weaknesses

None noted.

MANAGEMENT PLAN

Strengths

Clear organizational and human resources are presented and key staff and project partners are described.

The work plan reflects the program approach and objective.

Weaknesses

No project staff appears to have any TB experience. This application (design and implementation) and the project team would benefit from the technical expertise of a public health doctor with a Masters of Public Health and experience in Tuberculosis Control in the developing world.

It is not entirely clear how the proposed intervention will fit into the larger NTP (ISESALUD) intervention. Will promotoras (not supported by this project) be used in the NTP program for the other patients not served by this program or will only a subset of patients in specific target ares be involved in the community-outreach program?

COLLABORATION WITH USAID FIELD MISSION

Strengths

A letter of support from the USAID mission is provided by the applicant, and there is congruence with mission strategic objectives.

Weaknesses

None noted.

OVERVIEW COMMENTS

The applicant could have done a better job outlining more thoroughly the potential challenges that they might face during implementation, in particular, how they would deal with the migrant population. This would show a clearer link between the situational analysis and the program strategy. Also, the applicant should make certain that they work closely with the NTP on all aspects of the program.

ALIANZA COMUNITARIA
SOLUCION TB
PCI E ISESALUD PARA EL CONTROL DE LA TUBERCULOSIS

Qualitative Research Report

RESULTS FROM FOCUS GROUPS AND INTERVIEWS

General Coordination: Dr. Blanca Lomeli Amaya
Focus Group Facilitator and Report Writer:
Castulina Niño- Mtz. Castro
Interviewer: Dr. Liliana Andrade
Assistants:
Dr. Jesus Madrigal
Dr. Enrique Gómez

Cities of Tijuana & Mexicali
March 2005

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4. Focus Group with doctors Mexicali B.C.

5. Interviews with patients Tijuana B.C.

6. Interviews with patients Mexicali B.C.

7. Interviews with representatives from Rehabilitation Centers.

8. Interviews with representatives from the TB program

INTRODUCTION

A research study has been developed to find out the opinions, perceptions, and practices that patients, doctors, nurses, community health workers (CHWs) and representatives from rehabilitation centers have regarding tuberculosis. This was done within the framework of SOLUCION TB, a project implemented by Project Concern International in collaboration with the *Instituto de Salud en el estado de Baja California* (Baja California's Health Department). The main purpose of the project is to reduce tuberculosis (TB) morbidity and mortality through the promotion and improvement of prevention, detection, diagnosis, treatment, follow-up and control processes.

The research study consisted of four focus groups and a total of 23 interviews. Both strategies represent a qualitative method under which an individual or party discusses questions that will enable the interviewer to identify the perceptions, beliefs, and attitudes of the local population.

During the focus group discussions, participants:

1. Identified questions that generated discussions regarding the objectives of the program.
2. Developed a chart identifying the key players[1] that should participate in these sessions. The key players were identified as having the appropriate information necessary to provide a response to important questions.
3. Participated in group/collective discussions lasting no more than 2 hours.
4. Were recorded to ensure adequate documentation of the sessions.
5. Participated in discussions that were transcribed.

The following activities took place in preparation for the interviews:

1. An interview guide was developed.
2. A random sample of TB patients who receive treatment both at a clinic and at home was selected. Interviews with representatives from rehabilitation centers were also performed.

The purpose of this document is to document the conclusions and results of the qualitative research study implemented in the cities of Tijuana and Mexicali, B.C.

In the city of Tijuana B.C., the following activities took place:

- A focus group with CHWs.
- A focus group with doctors.
- Five interviews with TB patients receiving treatment at a clinic.

[1] Doctors, nurses & CHWs.

- Eight interviews with TB patients receiving treatment at home.
- One interview with a patient who abandoned treatment.
- Four interviews with state and municipal level officials from the TB program.

In the city of Mexicali B.C., the following activities took place:

- A focus group with nurses.
- A focus group with doctors.
- A collective interview with four representatives from rehabilitation centers.
- Four interviews with TB patients receiving treatment at a clinic.
- An interview with municipal officials from the TB program.

The TB program in Mexicali does not include home visits to patients. For this reason, interviews with patients who receive treatment at home were only conducted in the city of Tijuana. It was also not possible to find five patients who abandoned treatment in Mexicali and only one was identified in Tijuana. Two state decision makers were interviewed in Tijuana because they were attending a health related event on location. It was not possible to conduct a focus group with nurses in Tijuana because the day that the event was scheduled for was also the nurses' first day on the job after a strike. In Tijuana, a focus group was conducted with CHWs because PCI and ISESALUD have their support due to previous projects.

GENERAL CONCLUSIONS

The following statements came out of the different discussions. It is important to review some of these statements in more depth. It is also important to note that these are the opinions of participants and should not be taken as definite conclusions.

1. "TB is a public health problem that is out of control" and a disease commonly associated with poverty. Institutions recognized that some advancement has been made in its treatment but that it requires greater attention and support on behalf of authorities.
2. In order to tend to the problem, a strategic plan should be developed where administration processes are clearly defined both at the state as well as municipal levels. The plan that includes clear goals and strategies for the long-term effective control of TB.
3. A statement made by the different participants was that in order to mitigate the TB problem, the solution must stem from governmental authorities. Participants stated that a legislation needs to be implemented that specifically deals with patients who cannot follow

treatment to its completion due to mental and physical problems. The legislation should ensure that these patients are hospitalized.

4. Participants mentioned that in order to mitigate the escalating number of TB cases in Baja California, the existing collaboration and communication mechanisms between institutions and other public and private sectors needs to be strengthened.
5. The need to strengthen the processes for TB detection, diagnosis, treatment, follow-up and control was also identified. This should be done by increasing human and financial resources to stop the spread of TB via a timely diagnosis and ensure a correct course of treatment. The need for additional health centers in strategic locations with a high risk of infection was also suggested.
6. Participants also identified the need to strengthen and improve field practices. For example, laboratories need to be able to respond to baciloscopies, develop cultures to improve treatment, and train health center personnel to improve the quality and emotional support provided to patients. Additionally, the DOTS strategy practiced by CHWs and volunteers needs to be strengthened to decrease treatment abandonment rates.
7. In order to prevent TB, the need to design a media campaign was identified. The campaign would educate the overall population on the disease to reduce the stigma associated with TB patients. It was also suggested that messages be displayed in rehabilitation centers and prisons according to the level of risk or vulnerability of the population.
8. Regarding DOTS, participants acknowledged that when human and financial resources are available, the strategy is proven to be very effective. In recent years however, it hasn't had the impact that, according to the growing incidence of the disease, is needed. Even though DOTS is the strategy used, it is not being applied correctly neither in the clinic nor during home visits. "There's no strict Control."
9. Different patient profiles were identified according to their physical, emotional, and psychological conditions. The profile tends to determine the level of adherence to treatment. The following profiles were identified:
    a. Patients living in poverty, who do not have money or family support abandon treatment.
    b. Patients with substance abuse problems, HIV/AIDS, and/or lack a sense of understanding about the disease abandon treatment.
    c. Patients who have been rejected or mistreated by medical personnel constantly interrupt treatment. They go from one clinic to another.
    d. Patients who work and feel physically well can abandon treatment.
    e. Patients who do not work, recover fast, feel good but were not made aware of the importance of completing treatment might abandon treatment.

10. Three essential elements were identified to ensure patients adhere to treatment:
    - Foster a sense of well-being and responsibility towards others.
    - Provide the patients with resources to support their commute. This can be in-kind support (i.e food).
    - Establish a comfortable relationship with health staff by promoting open communication.
11. In addition to financial support, it was mentioned that in order to reach long-term sustainability for DOTS the program needs to:
    - Design and develop training and ongoing education campaigns for doctors, nurses, and CHWs.
    - Develop a DOTS manual for medical personnel/nurses which will contribute to an improvement in the performance of their jobs. Educational materials that are clear and aimed at the overall population are also needed.
    - Ensure CHWs are available to work in each of the target communities. Additionally, training should be provided for the CHWs so they may perform their job better and at the same time strengthen DOTS.

I. FOCUS GROUP RESULTS

1. TB IN BAJA CALIFORNIA

A common belief among all four groups was that "TB is a public health problem that is out of control" because it expands quickly and places the whole population at risk. Additionally, all four groups mentioned that TB is a disease that is associated with poverty and a disease that has a shortage of and sometimes inadequate control mechanisms. Institutions have recognized that some advancements have been made in its treatment but that it requires greater attention and support on behalf of authorities.

The problem is on the rise even though none of the groups mentioned having information on the number of TB cases. None of the groups have an official number of TB cases for each city[2] or the state. They stated that statistics exist, but they are unaware of them. It is important to note that TB patients are getting younger and are now between the ages of 18 and 20.

The groups also mentioned that TB rates are increasing. This is based on the fact that doctors currently have more TB patients than they did a year ago and many more than five years ago.[3] In Mexicali, the group of doctors also mentioned that pulmonary TB is the most common type of TB.

The groups also mentioned that TB in the state of Baja California is a serious public health problem that is complex and multi-faceted. It is especially difficult in the border region due to the high migration levels as well as the high rates of substance abuse and HIV/AIDS. Another influencing factor is the extreme poverty level of the patients. The high malnutrition levels, the lack of economic resources, unsanitary living conditions and in many cases the lack of access to health services are factors that hinder their recovery.

The groups mentioned that the TB problem is out of control because there are no good mechanisms in place for patient detection, follow-up and control. The groups also mentioned that records do exist and whenever possible case studies are done but they are not able to go into detail because available resources are not enough. The need to strengthen existing TB patient referrals and counter referral systems was also mentioned. The mechanisms are in place but are not practiced.

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[2] A nurse from Mexicali mentioned that, though unsure, she thought that around 500 TB cases exist in Mexicali.

The groups understand that the DOTS strategy exists and with appropriate human and financial resources the strategy is very effective in controlling TB. However, the strategy has not had the desired results according to the growing incidence of the disease.

The groups also mentioned in broad terms that for a long time, TB has not had the appropriate support from government authorities. The necessary human and economic resources to effectively handle the problem have not been assigned. Compared to other programs, there has also been inadequate support and insufficient information for patients and health personnel.

In this context, the group of doctors from Tijuana insisted that in order to control the problem, the solution must stem from government authorities. They mentioned the possibility of developing legislation that specifically deals with the treatment of patients with mental and/or physical problems which prohibits them from completing treatment. The doctors agreed that the patients should be quarantined while they are in the most active stage of the disease so they do not place the rest of the population at risk.

2. THE PROCESS: DETECTION, DIAGNOSIS, TREATMENT, CONTROL & FOLLOW-UP. INCLUDING TB PREVENTION.

The group of doctors and nurses mentioned that the number of cases has increased in recent years. They also agreed however, that this is not due to an effective mechanism for case detection but rather to an increase in the incidence of the disease and patients who are seeking medical care.

If contact tracing is the mechanism by which effective and timely detection of cases is to be accomplished, then the reasons why health centers do not practice this strategy need to be determined. Two reasons include:

1. Even though TB patients are required to bring those individuals with whom they usually (and in some cases occasionally) interact with in order to do testing and detect possible infections, in most cases, this is not done. Often the patient's contact refuses to go to the center to get tested. In other cases, patients with substance abuse problems deny having any contacts. Contact tracing is only practiced in the General Hospital and Health Center Number XXX. This is not sufficient. Most of the time there is not enough PPD to do testing and patients end up paying the services of a private lab for the tests. The same thing happens in the case of thoracic X-Rays.

2. In order to do contact tracing, field visits are crucial to analyze the living conditions of the patient. However, field visits are not likely because health centers do not have the human and economic resources to do so. For this reason, detection of new TB cases is minimal.

Another way in which TB cases can be detected is in rehabilitation centers. However, personnel are not always well-informed and aware of the disease. In addition, since patients are often HIV/AIDS positive, they are not admitted into the center.

CHWs (some are paid and some are volunteers) stated that they often work without having transportation, and they simply do it because they are aware of the importance of detecting cases. However, they stated that given the magnitude of the problem, their efforts seem minimal. CHWs agreed that contact tracing implies a lot of work and sometimes they are unsure if they are following appropriate protocols. They often are unable to tell if a patient is in the contagious stage.

The doctors did not recognize the work of the CHWs in Tijuana health centers. The support of the CHWs is minimal that it is impossible to recognize their accomplishments. In Mexicali, their work is non-existent.

The group of nurses from Mexicali identified rehabilitation centers as a way of enabling the detection of new cases and patients who discontinued treatment. The support of the rehabilitation centers is minimal because it is not consistent across all centers. However, the group of doctors from both cities said that rehabilitation centers are unreliable because their work is not guided by rules and regulations and their personnel is not trained. The doctors mentioned that the centers are more like community associations with good intentions but with a lot of shortcomings.

On the topic of ***TB Diagnosis***, the groups said that they had not encountered any critical problems. The groups mentioned that patients are diagnosed immediately after symptoms are identified. They did mention, however, that there have been a few problems in both cities with timing of baciloscopies which has to do with the lack of resources for the transportation of samples.

The group of doctors from Mexicali mentioned that the first patient visit requires a lot of paperwork and it can be overwhelming. It often takes as much as one to one and half hours to complete. This does not allow doctors to establish a relationship with patients because they have to limit the number of appointments scheduled.

On the topic of ***TB treatment***, the groups recognized that providing the medication free of charge and having the patient actually take it would guarantee the patient's recovery. Treatment gets complicated because patients must keep daily appointments to take their daily medication in the first stage and every other day during the second stage. Even though the medication and the monthly lab work are free, it entails a great deal of effort on behalf of the patient in terms of physical strain, time and money. The state of Baja California has not experienced a shortage of medication, the challenge is having the patient adhere to treatment.

The group of CHWs also said that the services provided at health centers can be an important factor in a patient continuing or discontinuing treatment. The CHWs stated that some health care staff and doctors are not sensitive to the patient's feelings and sometimes abruptly put a mask on or request that the patient put it on or they often disinfect the room while the patient is still present. This discourages patients from continuing treatment.

The focus groups mentioned that treatment has different effects on each patient.

TB Patients who also have substance abuse problems, HIV/AIDS, or some sort of economic, emotional, or family problem (which most patients do) are less likely to complete treatment. Patients who have the support of their family, mental health, and are able to work finish treatment satisfactorily. Unfortunately, the latter are less common.

In this context, the groups established a clear difference between patients who "escape or flee" and those who for whatever reason "abandon treatment." This distinction marks the rehabilitation strategy for patient recovery.

Another interesting aspect is one that relates to differences between male and female TB patients. The four groups agreed that the disease carries a different connotation depending on gender. They said that women feel a sense of responsibility and that their main motivation for completing treatment tends to be their children and family. Men, when they do not hide their feelings, feel the responsibility of being the sole providers of the family so they are not really concerned if they abandon treatment. In fact, CHWs from Tijuana said that they need to be more energetic with male patients in order to convince them to take the medication and continue treatment.

On the topic of ***Follow-Up and Control of TB Patients,*** the four groups agreed that patient follow-up is good. A record is kept, and medical consultations and monthly tests are scheduled on time. However, follow-up with patients who have abandoned treatment is almost non-existent. In

Mexicali, it is only done in exceptional cases. The reason for this has to do with inadequate economic and human resources. The groups were aware of this problem, but for the moment it is out of their hands. The group of doctors from Tijuana agreed.

The group of CHWs from Tijuana recognized that even though their efforts are small, they are attempting to find a solution to the problem. They often search for long periods of time for patients to help them recover. This, they identified, is their greatest accomplishment.

On the topic of ***TB Prevention*** in the state of Baja California, the groups mentioned that it is limited to the application of BCG immunizations to newborns to prevent infant tuberculosis. However, it has been more than six months since they had applied the vaccine because of a lack of supplies.

The distribution of information to educate the community on the disease is not existent. The group of doctors and nurses from Mexicali specifically mentioned that in the past 12 to 15 years there have not been any massive media campaigns to educate the population about preventive measures and support for TB patients. They also mentioned that when resources have been available, the staff from health centers visit schools to educate students not only on TB but also on a number of infectious diseases. Given that this is done sporadically, the impact of this is minimal.

The group of doctors from both cities and nurses from Mexicali considered that either TB is not as big of a problem as they perceived, the authorities do not want the truth to get out, or they just simply do not care.

3. STIGMA, DOCTORS AND MEDICAL PERSONNEL

A problem that was mentioned by all groups is the stigma associated with TB. Though they did not mention the intensity of the problem, they did say that discrimination and rejection of TB patients does exist and they attribute this to the lack of information provided to the population.

The groups did not identify, however, whether this was a problem associated with the majority of the population but they did provide examples where TB patients had been rejected and marginalized. For example, the groups cited cases where TB patients had been fired from a *maquiladora* or an office because the supervisor had expressed a fear of infection. The same happened to an elementary schoolgirl when her parents were asked to take her out of school to prevent infection to other children.

Due to their fear of being rejected, patients try to hide their disease and at the same time isolate themselves. Since patients do not tell their employer about their disease, they are unable to attend medical visits during work hours and thus adequate treatment becomes difficult. The CHWs have mentioned that when they deliver medication to a place of employment, supervisors are not informed of the worker's health condition and therefore they are not allowed to see the patient to provide them with their medication.

As mentioned before, there are also doctors and nurses who reject patients and call them derogatory names such as "*tuberculoso*" (a disrespectful name given to TB positive individuals). In the best of cases, they simply refuse to treat the patient. This happens because they are not educated about the disease.

Focus group participants recognized that these doctors and nurses influence patients to abandon treatment. Once again the groups were not able to identify the extent of the problem or whether it refers to a majority. However, participants assumed that only a minority group of doctors and nurses are responsible for this behavior.

A discussion among the group of doctors on the topic of stigma revolved around the issue of the organization and administration of health centers. The health centers do not have separate areas for TB patients because this might be misinterpreted as a form of rejection. However, it can be argued that it is done as a preventive measure. The group of doctors and nurses agree that it would be convenient to have TB specialized hospitalization units which would allow patients, especially those that do not have resources or a support system, to have a well-organized space for their recovery. The doctors stated, "we hope that our ideas are not interpreted as marginalization or isolation of TB patients, but rather as a measure to prevent the spread of the disease to others." From their perspective, it is a "time bomb."

4. DOTS: EXPERIENCES, SUCCESS FACTORS, TREATMENT ADHERENCE,AND OBSTACLES FOR PATIENTS

The Directly Observed Treatment Short-course strategy (DOTS) is widely known and applied by CHWs in Tijuana. After much insistence on behalf of the facilitator during the collective discussion session, the doctors did mention that DOTS in fact exists, but they failed to recognize both the job and the effectiveness of CHWs. They even doubted that the strategy was practiced as it should be. They said, "DOTS is a strategy, but the DOTS practiced at the clinics or home visits is not as it should be. There is no strict Control."

The resistance on behalf of the group of Tijuana doctors to express an opinion about DOTS was such that the group in general had to be asked to grade DOTS, on a scale from 1 to 10, according to how they perceive that that the strategy is currently being applied in Tijuana. This was very difficult for the group and they graded DOTS at a 5 because there are no human and economic resources to implement the strategy fully and permanently.

In Mexicali, both the group of doctors and nurses remembered that approximately three years ago they had the support of CHWs to help them administer the medication through home visits and help recover patients who had abandoned treatment. The support was minimal because of the resources assigned, but they admitted that the strategy does work, especially for patients who live under extreme poverty and isolation.

Patient follow-up does not exist. Many patients receive a weekly supply of the medication and are trusted to take it, which is not always the case. For example, recently, the relative of a deceased TB patient arrived at the center with a container full of pills and told the doctor "I am bringing back all these pills that were left over."

In both cities, the following requirements were identified for the implementation of an effective DOTS strategy:

- Staff assigned and trained to keep records should do follow up fieldwork. The nursing staff, who already have many other duties related to other patients with other diseases, are currently performing these tasks.
- Patients require psychological counseling, according to the group of nurses. Especially those who have additional problems such as substance abuse, which get in the way of treatment.
- The economic resources to support the field work of CHWs are crucial. The groups insisted on the need for a vehicle and driver, or in its absence, a stipend for gas. In order to maximize the available resources, a well-organized area in health centers is needed for patients. This area should consider the priorities and emergencies of the patients. This currently does not exist.

The four groups identified areas of difficulty and success factors when it comes to treatment adherence. These factors are linked to the type of patients mentioned on section three (TB Treatment).

The Difficulties were:

- Patients living in poverty who do not have money, energy, enthusiasm and often times lack a support system (family/friend) to give them a ride to the clinic, will abandon treatment.
- Patients who also have substance abuse problems, HIV/AIDS and are not in good physical or mental condition will abandon treatment. These patients have the greatest risk because they become resistant to the drugs.
- Patients who are in good physical condition and have no problems with the commute to the center but lack the support of family and/or fiends and who have to work and are not able to speak to their employer will abandon treatment as soon as they feel well.
- Patients who have been rejected or mistreated by medical staff or who have not received the appropriate treatment at health centers will constantly interrupt treatment going from one clinic to another.
- Patients who are able to commute to the health center, have a flexible work schedule, and have the support of their family but start feeling better after they initiate treatment also abandon treatment. The nurses from Mexicali mentioned that this could be attributed to the fact that these patients do not receive the appropriate information about the importance of finishing treatment.

The success factors for treatment adherence mentioned by the four groups were:

- Patients who have a positive outlook on life and are motivated to continue treatment will recover.
- Patients who have access to transportation such as a bicycle, a car or easy access to the center adhere to treatment.
- Patients who have a support system (family, friends, or coworkers) have a greater probability of continuing treatment.
- Patients who have received support from health staff (food or money) are motivated to continue treatment.
- Patients who have established a good rapport and have received information from medical personnel about the risk to family members and other individuals, have a greater chance of treatment adherence.
- The group of CHWs mentioned that winning the trust of patients and establishing good communication were crucial factors in convincing them of the importance of taking the medication. Any support given to the patients is important (for example, bringing them food and beverages). The CHWs stated that “patients must feel that someone is concerned about them and that their health matters.”

5. HOW TO IMPROVE THE DOTS STRATEGY

1. A key element for DOTS is for health centers to employ additional personnel who will exclusively perform the tasks of TB detection, treatment, and follow-up.
2. Health centers require resources, including vehicles, gas or stipends for transportation to increase field work.
3. Design a strategy for record keeping in all health centers to increase the recovery of old cases and detect new ones.
4. Simplify the registration for first time TB patients.
5. Continue to train doctors, nurses and CHWs.
6. Develop a DOTS manual for doctors and nurses. This will allow them to better perform their duties. Clear and simple educational materials for the general public are also needed.
7. Develop a massive media campaign for TB prevention for the general public and health staff to educate the population about the disease.
8. Help the patient pay for their commute or offer food to increase patient adherence to treatment.
9. Provide psychological counseling for TB patients to motivate them to continue treatment and detect problems that encourage patients to discontinue treatment.
10. Ensure CHWs are present in each community to ensure the implementation of DOTS. Provide CHWs an incentive and train them to better perform their job.
11. Open more health units in strategic locations to increase access to treatment and thereby reinforce the strategy for TB prevention and detection.
12. The group of doctors failed to recognize the work that is being done at substance abuse rehabilitation centers for TB patients. The doctors recommend regulating these rehabilitation centers. They also suggest that the personnel be trained in the DOTS strategy.
13. Work with other sectors such as the Education Department to distribute information related to TB and its preventive measures. Create recovery clinics that are well-organized to hospitalize TB patients who have mental health and/or substance abuse problems, HIV, etc.

II. INTERVIEW RESULTS

A. INTERVIEWS WITH PATIENTS

A total of 18 interviews were conducted with TB patients (17 current patients and one who abandoned treatment). Of this amount, 14 were from Tijuana and four from Mexicali (16 men, two women). Their ages ranged from 20 to 63 years of age. Nine of these patients were single, seven were married with children and one was a widower. Two of the patients were former substance abuse patients.

These are 18 patients from the state of Baja California, four of them are currently receiving treatment at a rehabilitation center and four are receiving treatment at home though the CHWs. Nine of the patients need to commute to the clinic to receive treatment and one of the patients (female) abandoned treatment due to lack of proper care.

Ten of the patients are in the second stage, six in the first stage and one is in the first stage a second time after interrupting treatment for several months. The amount of time that they have been on medication varies from two to nine months. Among all interviewees the following patterns are observed:

- Prior to being diagnosed, the patients had no knowledge of TB. Some mentioned that they believed TB was incurable and a very infectious disease.
- From their responses, it was concluded that they had received basic information from health staff related to treatment and ways to protect those with whom they interact with.
- Only a few patients mentioned that clinic staff requested that they bring relatives or close friends to be tested. Only one patient agreed to do this while another said his friends refused.
- All patients reported that their current health condition is much better than when they first began treatment.
- Some patients mentioned undergoing treatment a second time after abandoning treatment for a few months. The reasons for abandoning treatment were: 1) drugs; and 2) belief that he/she was cured after noticing a significant improvement.

As for the quality of services received both at the clinic as well as at home, the patients reported receiving good, fast and courteous service. They receive the medications and any questions that they might have are answered. Two of the patients mentioned that sometimes the clinic does not

have water for them to take the medication. For this reason, the patients started bringing their own beverage to the health center.

One of the patients reported that a doctor from the clinic got very angry and reprimanded him when he missed an appointment for two consecutive days. Even though the patient explained that the reason was job related, the doctor threatened to hospitalize him next time he missed an appointment.

For those patients that are treated at the clinic, the commute is usually 20 to 40 minutes long. They often transfer busses several times. This implies an expense between 7.50 and 22 pesos. This is the reason patients tend to identify the commute as the greatest obstacle in continuing treatment, especially during rainy days, when sometimes it becomes impossible for them to keep their appointments. Four patients from Mexicali do not have access to public transportation because they live in remote areas. When the patients are unable to secure a ride, they have to walk through harsh conditions for 15 to 20 minutes to reach the clinic.

From these interviews, it is concluded that patients do not have a clear idea of the effects TB may have on their communities. Some patients did note that they have been rejected by others when they mention having TB. Only four patients considered that the disease might be different for men and women. These patients mentioned that women are more nervous, more prone to stress and are weaker, so the effect might be greater on them.

Out of the four patients interviewed in Mexicali, two of them are independent contractors; one a knife grinder, the other a construction worker. For this reason, they are able to keep their medical appointments. Suggestions made by patients include: provide a weekly supply of the medication to avoid daily visits to the clinic; support the commute; and doctors should trust patients enough to provide the medication to a family member if they are unable to go to the clinic.

B. INTERVIERWS WITH REPRESENTATIVES FROM MEXICALI REHABILITATION CENTERS

Four representatives from rehabilitation centers were interviewed. Two of the representatives mentioned that in the time that they have worked at the center (5 and 6 years), they have never had a TB patient. The representatives mentioned that HIV patients are more common and that they have also received invitations from ISESALUD to attend conferences on HIV/AIDS but not for TB. The representatives stated that TB was a problem in the border area because of the migrating population who work in unsanitary conditions and live in poverty. However, they were not able to identify how TB is transmitted or how it is treated.

The other two representatives from rehabilitation centers mentioned that it had been more than six months since they had worked with a TB patient. The representatives stated that the patients are immediately referred to the General Hospital. According to conversations held with health authorities, the centers are only allowed to care for TB patients if they comply with a series of requirements. These requirements include: the center needs to have a doctor; the center must have a special area for patients; the center staff need to attend a series of conferences; and the staff need to sign a letter accepting responsibility for the patient's treatment.

Even though the staff agree that these requirements are important, they mentioned that as community organizations, their income is dependent on patient fees and donations. For this reason, they are unable to pay a full-time doctor or have a special area designated for TB patients. In the past six months, the two centers have referred a total of five patients diagnosed with TB to the general hospital.

The representatives at the rehabilitation centers mentioned that patients with substance abuse problems are people without a sense of purpose. These patients often do not understand why it is important to care for themselves and others around them. In the words of the representatives, substance abuse patients are "unconscious, unaware of themselves, much less of others. They lack self-esteem and feel rejected by society. This does not help their recovery. For these reasons, if they are diagnosed with TB, they often do not care about the consequences."

The representatives were also unaware of the DOTS strategy. Even though they have worked with TB patients and provided daily medication, they were unaware of DOTS. The representatives mentioned that most patients took the TB medication willingly but some left the rehabilitation

center without finishing treatment. Unfortunately, the rehabilitation centers do not have the authority or the resources to search for these patients and return them to the center. The representatives recommended the implementation of hospital units to serve patients with substance abuse problems and patients who lack an adequate support system.

C. INTERVIEWS WITH TB PROGRAM REPRESENTATIVES

1. TB in Baja California

A total of five state and municipal level TB program representatives were interviewed. Of this amount, three were women and two were men. All representatives were doctors with more than 10 years of experience in the health sector and specifically, in the microbacteriosis area. Most of the opinions expressed, with the exception of a few comments, were very similar to those of the groups of doctors, nurses and CHWs.

Four of the TB program representatives mentioned that TB is out of control in the state of Baja California. However, they do acknowledge that an improvement has been made in recent years with the available resources. Additionally, the participants mentioned that current efforts are not sufficient because TB is on the rise and ISESALUD is incapable of handling the problem.

The representatives also noted that even though TB is an important problem, it has not increased in recent years. They stated that the morbidity rate has remained constant at an average of 1,000 new cases per year. In addition, the representatives believe that skilled personnel is able to respond to the demand for baciloscopies. The quality control rating for laboratories is currently at 98%.

Two TB program representatives mentioned the importance of legislation to ensure patients adhere to treatment. In addition, the legislation should call for hospital units for patients who lack a support system and/or have substance abuse problems.

The following issues were identified by three representatives:

- There is not enough health prevention and promotion especially in the area of TB.
- There is not enough information about TB distributed in rehabilitation centers, prisons, etc. Participants stated that the lack of a media campaign is the result of not having political support.

- Existing human resources (i.e. lab technicians) are not enough to respond to the growing demand for baciloscopies.
- The tests to determine a patient's resistance to treatment are inadequate. Having the appropriate instruments to conduct these tests would allow staff to identify any necessary adjustments to treatment.
- Two of the representatives agreed that there has been adequate inter-institutional collaboration. For example, agencies such as IMSS, ISSTECALI, CEDENA, CEMAR, The Binational Border Health Commission, and the DIF, work well together. However it was mentioned that collaboration needs to be strengthened.
- Even though in 1996 the health system (IMSS-ISESALUD) was reformed to make it easier for patients to obtain medical care at any center, patients are still denied treatment. This has created a reluctance to return to obtain treatment.
- The relationship with the private sector needs to be strengthened. In many cases, private doctors do not give the correct diagnosis and it is not until the first stage of the disease that the patient is referred to the General Hospital.
- The coordination between health personnel who provide medication for the first and second stage of TB needs to be strengthened.
- One of the interviewees mentioned that communication and coordination problems within ISESALUD affect the administration of the TB program.

2. DOTS: EXPERIENCES, SUCCESSES AND OBSTACLES FOR PATIENT ADHERENCE TO TREATMENT

The TB program representatives interviewed all recognized that DOTS is a good strategy. They mentioned that the 2001 border health program recognized that a strategy involving CHWs can been successful. However, in order to implement DOTS, there is a need for financial and human resources.

One of the interviewees stated that even though official government data reports a DOTS coverage of 95%, in reality, DOTS coverage is only 70%. Additionally, there is a 25% abandonment rate. With the help of the CHWs, this number goes down to 15%.

All of the representatives acknowledged that the main challenge is ensuring patients adhere to treatment. However, this is difficult because there are not enough resources available. For example, there is not enough personnel to work with patients to ensure treatment adherence.

There are not enough human resources to effectively control the problem. It is not possible to apply DOTS to all patients because of scheduling conflicts, patient problems with commuting, the clinic's hours of service, and there are not enough CHWs to provide 100 % DOTS coverage.

The DOTS Network was originally created to exclusively train nursing staff who were in contact with TB patients. It was acknowledged, however, that all staff from the health center, from receptionists to doctors, should be involved in order to improve the services rendered and accomplish patients' treatment adherence.

The DOTS network specifically supports both a humanitarian approach to improving relationships with patients, as well as the strengthening of community organization, whereby CHWs organize in their communities to diagnose cases and process the support needed from respective municipal health departments.

All of the interviewees recognized the fact that the majority of TB patients have to overcome hard situations that complicate treatment adherence, such as: suffering from other diseases like HIV/AIDS; lack of economic and family support; substance abuse; constant migration, etc.

None of the interviewed individuals recognized a difference in the effect that the disease has on men versus women.

On the issue of society in general, interviewees recognized that there is very little information available about TB's modes of transmission and treatment. This creates discrimination, marginalization, and rejection of TB patients by the general population, as well as by medical personnel.

In order to increase treatment adherence in patients, the following three factors were identified as important and in need of consideration:

- The type of additional support to provide to highly vulnerable patients; for instance, food, psychological counseling, support for their commute, home visits, etc.
- Building rapport with patients, including appropriate communication to guide and educate patients on the importance of treatment and prevention of infection among those with whom they interact
- In the case of substance abuse patients in particular, seeking the support of rehabilitation centers.

3. HOW TO IMPROVE THE DOTS PROGRAM.

The following were among suggestions provided by the interviewees:

a. Strengthen the DOTS network at all its levels, starting with state authorities so as to increase activities and resources throughout the complete process from detection to follow up and control.

b. Strengthen collaboration both among institutions as well as with other public and private sectors in order to effectively handle the problem.

c. Design a strategy for the communication and wide distribution of messages for the general population focused at high-risk and high-vulnerability zones.

d. An Increase in the economic resources to support fieldwork: transportation vehicles, stipends for gas or transportation, availability of Petrie dishes, increase in baciloscopies and Thoracic X-Rays, and staff incentives.

f. An increase in the human resources at the health centers and laboratories, and among CHWs and specialized doctors.

g. Continuous and permanent strengthening of existing training systems for health staff at all levels in an attempt to maintain patient treatment adherence.

h. Design strategies for the exchange of experiences, recognition, and motivation of CHWs.

i. Improvement of teamwork and effective communication both at the state as well as the municipal levels. Hold periodic meetings to assess the progress of DOTS.

j. In order to optimize resources, identify a set of strategies to plan, organize, and administer services rendered by the TB program.

k. Design a tutoring schedule for “case management” for social workers who will be assigned a number of patients for follow-up purposes.

l. Design special strategies for substance abuse TB patients, such as their hospitalization in well-organized and well-administered rehabilitation centers.

MOU Between PCI and the Baja California Ministry of Health (MOH)

This collaboration agreement seeks to strengthen the "Microbacteriosis Prevention and Control Program" specifically the Tuberculosis component which is a high priority area for the state of Baja California. PROJECT CONCERN INTERNATIONAL INC. and its MEXICO REPRESETATIVE MEDICINA SOCIAL COMUNITARIA A.C, hereinafter referred to as "PCI", represented by Dr. BLANCA LOMELI AMAYA, and its SOLUCION TB Project financed by USAID, hereinafter referred to as "THE PROGRAM" and INSTITUTO DE SERVICIOS DE SALUD PUBLICA DEL ESTADO DE BAJA CALIFORNIA hereinafter referred to as "ISESALUD" represented by Dr. FRANCISCO VERA GONZALEZ, Director bind themselves to the following antecedents, declarations, and clauses.

ANTECEDENTS

A) In an attempt to reduce and stop the spread of tuberculosis and with the objective of eradicating the risk of infection and death by this disease, "ISESALUD" has implemented the "Microbacteriosis Prevention and Control Program".

B) Since pulmonary tuberculosis is the most common form of Tuberculosis and has the highest epidemiological impact because of its transmission, the main objective of "THE PROGRAM" is to identify potential TB cases as early as possible and guarantee treatment for the patient at no cost.

C) Directly Observed Treatment Short-course (DOTS) strategy will be incorporated into "THE PROGRAM" to ensure the strict supervision of patients undergoing treatment. This is a high priority area.

D) In an attempt to accomplish the objectives of "THE PROGRAM" and due to PCI's interest in taking part of this, the parties have decided to enter into this agreement and bind themselves to its terms.

D E C L A R A T I O N S

" PCI " DECLARES:

I. That it is an international non-profit organization, legally formed according to the laws of the United States and according to_____

II. That its North America Regional Director is Dr. Blanca Lilia Lomelí Amaya, is fully authorized to enter into this agreement.

II. That part of its objectives is to improve access to healthcare services for low-income populations and promote binational collaboration through funds provided by "Project Concern International Inc." of the United States of North America in this case destined to strengthen the Directly Observed Treatment Short-course (DOTS) component of the Microbacteriosis Prevention and Control Program.

IV. That it enters into this agreement on its free will and establishes Batopilas 2336 of the Colonia Cacho of the City of Tijuana, Baja California as its mailing address for all legal purposes.

" ISESALUD " DECLARES:

I. That it is a decentralized public organization and it is a legal entity created by the executive power of the State of Baja California published in the Official newspaper of the entity on December 19, 1997 with the primary goal of providing Health Services to the population according to the General Health Laws, State Health Laws, and agreements and contracts entered into by State and Federal authorities with other municipalities.

II. That its Director is legally authorized to represent the *Instituto de Servicios de Salud Pública del Estado de Baja California* under the terms of article 17 section I of the constitutional decree.

III. That its physical address is Av. Pioneros No. 1005 Palacio Federal Tercer piso cuerpo "C" of the Centro Cívico y Comercial in this city.

Having stated this, the parties subject themselves to this agreement under the following terms and conditions:

C L A U S E S

FIRST.- OBJECTIVE OF THIS CONTRACT

The objective of this contract is to regulate the terms under which "PCI" will provide economic, human, in-kind support to "ISESALUD" in order to strengthen THE PROGRAM, and the way in which "ISESALUD" will utilize such resources.

SECOND.- RESPONSIBILITIES OF "PCI."

In order to comply with the terms of this agreement, "PCI" has committed to the following activities:

a) Personnel.

1. Develop a contract for thirty (30) individuals to strengthen patient follow-up activities in the different "ISESALUD" units, 2 will perform administrative activities, twelve will serve as Community Health DOTS workers in the Health Service Jurisdiction No. One of the city of Mexicali, and sixteen will serve as Community Health DOTS workers in the Health Service Jurisdiction No. Two of the city of Tijuana.
2. Pay a total of *11* of the thirty individuals under contract an amount equal to $4,400.00 pesos as compensation for services rendered, including a Christmas Bonus and other fees to the *Instituto Mexicano del Seguro Social.*
3. Compensate the remaining nineteen (19) individuals (Community Health Workers), a total of $3,960.00 pesos per month. These individuals will be dedicated to strengthening the Prevention and Control Program implemented by "ISESALUD"
4. Gradually reduce the number of personnel under contract which should reach 8 in the third year of the program and 4 in the fourth year.
5. Develop a contract, during the second year of "THE PROGRAM", for two individuals to serve as lab technicians and assign them to the Health Services Departments of Mexicali and Tijuana respectively. These individuals will be trained at the National Institute for Referrals (*INDRE*) at the expense of "PCI". "PCI" will continue paying one of these technicians during years 3 and 4 of the program.
6. Accept the responsibility of employer of the contracted personnel, and relieve "ISESALUD" from any responsibility with the contracted and paid personnel.

b) Assets.

1. Negotiate in favor of "ISESALUD" and ensure all paperwork is in place for the donation of three automobiles, either new or previously owned, to

be used to implement THE PROGRAM, one vehicle will be for the Health Service Jurisdiction No. One of the City of Mexicali, and the other two for the Health Service Jurisdiction No. Two of the City of Tijuana.

2. Donate three telephone systems with fax, scanner, and printing capabilities to "ISESALUD" which will be used in activities related to THE PROGRAM.
3. Donate three computer systems to "ISESALUD"; one for the state office, another to the Health Jurisdiction No. One of the city of Mexicali and the other to the Health Jurisdiction No. Two of the city of Tijuana.
4. Provide financial resources to purchase fuel for the aforementioned vehicles, one in Mexicali and two in Tijuana, which will be used to transport the Community Health Workers and other personnel who are working with patients.
5. Provide basic supplies (TB backpacks, pencils, paper cups) for the community Health Workers working under THE PROGRAM.
6. Once the personnel has been contracted, and its presence is required to facilitate working meetings outside of the jurisdiction wherein services are provided, "PCI"

will provide "ISESALUD" with the food and the resources necessary for transportation.

c) Services.

1. Contract and install three telephone lines to be assigned to the responsible parties from the Tuberculosis Program; one in the state office, another in Mexicali, and one in Tijuana.
2. Cover Internet service costs resulting from the use of the phone lines mentioned in number one above.

THIRD.- RESPONSIBILITIES OF "ISESALUD".

In general, "ISESALUD" commits to plan, organize, and perform all activities that, to the best of its ability, can strengthen THE PROGRAM in the priority areas identified and to be identified by the parties within the state of Baja California.

a) Personnel

1. Aside from the aforementioned in bullet number 5 of the preceding clause (a), train DOTS WORKERS and COMMUNITY HEALTH WORKERS mentioned in this clause.

2. Negotiate as necessary so that DOTS Community Health Workers receive Medical insurance benefits from *Seguro Popular de Salud* at no cost to the beneficiary.
3. According to a schedule deemed appropriate by *EL INSTITUTO,* absorb staff and /or Community Health Workers and lab technicians gradually released by PCI during years three and four of the project.

b) Assets

1. Hire insurance services to cover the vehicles obtained as donations, process their registration and licensing, and cover all the necessary maintenance expenses required for each unit as a result of their use.
2. Assign the telephone lines mentioned in bullet c) of the previous clause to the TB

   program staff appointed in support of this program.
3. With the exception of Internet service fees, pay the telephone services incurred by the lines mentioned in bullet c) in section number 1 of the previous clause.
4. To provide all the medication needed for the cases assigned to the DOTS Community Health Workers of THE PROGRAM.

c) Services

1. Using the personnel and technical resources of "ISESALUD", perform baciloscopies for the control and medical care of all the cases assigned to the DOTS Community Health Workers of "THE PROGRAM".

FOURTH. - Working Relationship

It is specifically stipulated that the parties of this contract are not considered intermediaries of each other with regards to their staff or third parties, which is why the personnel that is contracted by "PCI" for the delivery of services of "THE PROGRAM" will have not have a working relationship with "ISESALUD", and hence, each of the parties will assume responsibility of any labor, fiscal, or social security issues that might arise.

Given the case, "PCI" commits to support "ISESALUD" through any complaints by paying the fees for services that might correspond to the defendant or "ISESALUD"

FIFTH.- GENERALIZATIONS

It is agreed that all issues outside of this contract will be settled by the parties according to the objectives of the "THE POGRAM" and according to the best way to settle them.

SIXTH.- JURISDICTION

The parties to this agreement agree that the laws of the State of Baja California will be applied in the interpretation and compliance of this contract or anything not specifically

stipulated in it; and any conflict that might arise among the parties will be jurisdictionally solved through the appropriate state court procedures.

SEVENTH.- DURATION

This agreement is enforceable upon the date signed and may be terminated at will by any of the parties upon a 30 day written notice prior to the date of its desired conclusion.

It is signed in the city of Mexicali, Baja California on this first day of March of the year two thousand and five.

" EL ISESALUD" PROJECT CONCERN INTERNATIONAL

DR. FRANCISCO VERA GONZALEZ DRA. BLANCA LOMELI

GENERAL DIRECTOR FOR ISESALUD

NORTH AMERICA REGIONAL DIRECTOR FOR PROJECT CONCERN INTERNATIONAL

SUBDIRECTOR GENERAL MEDICO DE ISESALUD

WITNESS

JEFE DEL DEPARTAMENTO DE MEDICINA PREVENTIVA

WITNESS

Blanca Lomeli

Project Concern International • 148 E. 30th Suite-Up South, National City, CA 91950
(619)671-9371•blomeli@projectconcern.org

Expert in public health programs, in particular reproductive health, TB and HIV/AIDS.
Life-long experience and leading position in the US-Mexico Border Region health initiatives
Bilingual Spanish-English

EDUCATION

Medical Degree, Universidad Autonoma de Baja California, México, Mexicali Campus. Studies 1980-1986. Degree Awarded June 1986.

Masters in Education program, Centro Universitario de Tijuana, Baja California México. 1996.

PROFESSIONAL EXPERIENCE

Regional Director, North America, (US. And Mexico Programs), Project Concern International, *1999- present*. Leading local and bi-national teams. Oversees design, implementation and evaluation of NGO capacity building strategies to foster collaborative efforts between community-based, governmental, and private organizations to improve health in the California-Baja California region. Tuberculosis and HIV/AIDS are the main focus area for border programs. PCI representative on Ten Against TB, a border-wide TB control and prevention initiative along the US-Mexico Border. Responsible for management, direct design, implementation and evaluation of community-based Primary Health Programs, including child survival, AIDS, Reproductive Health and Rights, and Environmental Health. Responsible for overseeing nationwide projects in collaboration with México's Ministry of Health. Joint projects with the MOH include Maternal-Child, Family Planning, and AIDS departments. Responsible for program development and sustainability.
As a member of the Global Leadership Team provides input on strategic direction and programming for 12 PCI field offices world-wide. Technical Advisor/consultant on reproductive health and gender issues for selected projects in PCI programs in Latin America. Designs and provides training for staff and partners.
As Member of BEACON/I-STAR (Building AIDS Coalitions, Organizations and Network/Integrated Systems for Transformation and Results) team provides Capacity Building and Technical Assistance to PCI's field offices and partners' wishing to improve organizational and technical systems in HIV/AIDS and Reproductive Health. Participated in drafting PCI's first definition of sustainability in the context of the AIDS pandemic. Lead trainer for I-STAR and facilitation of processes with PCI staff and partners in Mexico and Guatemala. Participated in the definition of Reproductive Health Standards of excellence for the I-STAR process. Founding Member of Gender Equity Commission of PCI.
Country Director, PCI-México/Medicina Social Comunitaria, Tijuana and México City, México,*1988-present*. Oversees staff of 15 and manages 10 community-based health posts, and collaborative programs with local and national Ministry of Health, serving more than 650,000 women and children. Coordination and representation of PCI programs. Responsible for Human Resource, Program Development and Management. Oversee implementation of DOTS projects for local and bi-national TB patients. Coordinated collaboration with ISESALUD (MOH) and SD County TB Control Program on the design and implementation of promotora-based DOTS projects. Designed and implemented AIDS prevention trainer of trainers curricula that taught over 300 teachers and health workers and benefited over 20,000 students in Baja California and Chihuahua, Mexico.
Training Advisor, PCI, *1987- 1992*. Developed needs assessment and Implemented system to improve communication and increase awareness on PCI training programs world-wide. Helped developed competency-based curricula for PCI programs.
Staff Physician Medicina Social Comunitaria A.C., Tijuana, Baja California, México *1986 - 1988*. Responsible for Outpatient Care, consultations. Trained and supervised Community Health Workers. Managed Drug Supply. Providing follow-up home visits.

OTHER

Member, Advisory Group, California Office of Bi-national Border Health. As part of the first Advisory Group for the COBBH, participated in the development of strategic plan, mission, vision and objectives for the office.
Member of the advisory committee of the Smart Choices Program, Women's Foundation. San Francisco, California. Participates in grant review processes. Provides advice on Reproductive Health issues relevant to the border region.
Member of the Steering Committee. Binational Consortium for Research and Action. A collaborative project between Colegio de la Frontera Norte, University of Arizona and El Colegio de Sonora.

Enrique Alberto Gómez Bastidas

Iniciativa de Salud Fronteriza, Av. de los Héroes s/n, Centro de Evaluación y Diagnóstico Facultad de Medicina de la UABC •Centro Cívico y Comercial, S/n Mexicali B.C. • PO. Box: 5395 21000 México Calexico CA.92232•Tel. / Fax: (011 526) 582 3110•egomez@projectconcern.org

Professor of Medicine, School of Medicine, Mexicali
Expert in HIV/AIDS and in infectious diseases treatment and public health issues

EDUCATION

Medical Degree *Universidad Autónoma de Baja California, Facultad de Medicina*, Mexicali Campus.

PROFESSIONAL EXPERIENCE

Program Coordinator of the Border Health Initiative, Project Concern Internacional, *1999-present*
Responsible for management, design, implementation and evaluation of the BHI's program in Mexicali, Baja California, Mexico. The main objective of the program is increasing the capacity of community-based organizations to respond to the public health challenges of the border and to promote public awareness regarding border health, especially in the areas of tuberculosis, HIV/AIDS, substance abuse and reproductive health.

Medical practice, *1995-present.* HIV/AIDS patients' treatment.

International Advisor for the Pan American Health Organization (PAHO). Training courses in Managua focused on integral attention of the HIV/AIDS patient.

OTHER

Member of the bi-national coalition of HIV/AIDS Imperial- Mexicali, *1998-present*.
Active participant to the Border Health initiative between Yuma, Arizona and San Luis Río Colorado, Sonora, *1999-present.*

Member of the Imperial County HIV planning board (HPB), *1998-present*.
Member of "Asociación Internacional de Sida" (IAS).

Vice-president of "Asociación de Médicos al Cuidado del paciente con VIH" in Baja California, México (AMECVIH).

Member of "Asociación Internacional de Médicos al Cuidado del Paciente con SIDA" (IAPAC).

Active member of Bi-national Comities HIV/AIDS, TB and Abuso de Substancias del Valle Imperial y Mexicali.

International advisor for Family Health International (FHI).
Collaboration since 1996 with ACCSIDA, an ONG in Hermosillo, Sonora.
Certificate of bi-national advisor on HIV/AIDS since 1995. (Confirmation in '96, '97, '00, '01 and '02).
First Master Trainer in "Consejería para VIH/SIDA en México" (2002).
Several researches and publications on HIV/AIDS and infectious diseases.

J. Jesús Madrigal Ortiz

Project Concern International • Batopilas 2336 Col. Cacho • Tijuana, B.C. Mexico
Tel: 011-52-664-633-9063 • pcimsc@prodigy.net.mx

Eight years experience in development & implementation of health education programs.
Seven years experience in development & implementation of reproductive health programs with a gender perspective, special emphasis in health and masculinity.
Four years experience training on TB control activities under the TAES-DOT strategy.

EDUCATION

Master's in Public Health, Universidad Autonoma de Baja California, 1998
Bachelor's in General Medicine, Universidad Autonoma de Baja California, 1986
Lawyer Candidate Bachelor's, Universidad Autonoma de Baja California, 2005

PROFESSIONAL EXPERIENCE

Program Coordinator, Project Concern International, *1998-present*
Responsible for management, design, implementation and evaluation of PCI's programs in Tijuana, Mexico. The main objective of the programs is to increase the capacity of community-based organizations to respond to public health challenges and promote public awareness in the areas of tuberculosis, HIV/AIDS, substance abuse and reproductive health.

Program Coordinator, Public Health Service Institute of Baja California, *1996-1997*
Assisted in the implementation of HIV/AIDS and reproductive health programs. Management, follow-up and evaluation of the HIV/AIDS Tijuana control and prevention program.
Responsible for the implementation, follow-up and evaluation of the Cervical and Breast Cancer control and prevention program.

Teaching, Investigation and Training Coordinator, Public Health Service Institute of Baja California, *1998*
Resposible for capacity training to all interns in social service, and implementation and follow up investigations in all preventive & control programs**.**

OTHER
International Workshop on Social Mobilisation of NGOs in TB Control, Bangkok Thailand Sept 2004
Epidemiology Course, Instituto Nacional de Salud Pública, Cuernavaca, Morelos, August 2001
HIV/AIDS Certificate, Instituto Nacional de Salud Pública, Cuernavaca, Morelos, Summer 2000
TB Seminar, Binational TB Committee, Tijuana, Baja California, November 1999
National Forum on Mexico's Health, Health Committee of La Union Congress, June 1999
Regional Congress on Public Health, State Association for Public Health, October 1998
First State Congress on Public Health, Colegio de la Frontera Norte, October 1997
Resource Development Workshop, Pan American Health Organization, November 1997

Linda Morales

Project Concern International, 5151 Murphy Canyon Road, Suite 320 • San Diego, CA 92123
(858) 279-9690 • lmorales@projectconcern.org

Seventeen years of experience developing & implementing health program. Specialization in behavior change communication for FP & HIV/STI prevention and design of innovative training curricula and behavior change communication interventions. Ten years of experience in developing countries: LAC, Africa, & Asia; fluent Spanish and French

EDUCATION

M.A. International Policy Studies - Development
Monterey Institute of International Studies, CA, 1986.

B.A. International Relations and French
University of San Diego, CA, 1983.

PROFESSIONAL EXPERIENCE

Technical Officer, Maternal & Child Health, Project Concern International, 9/00-present - *Provides technical assistance and QA for PCI's field programs and International Office in strategic resource development, program design, implementation, monitoring and evaluation for maternal health and child survival interventions. Trains field staff and provides technical support in communication techniques and behavior change materials development.*

IEC Director, PSI, Bolivia, *11/98-6/2000* - Supervised 8-member team in developing promotional branded and generic IEC materials/interventions for social marketing program reaching all regions of Bolivia. Conducted training and provided technical assistance in IEC and social marketing for more than 12 local NGOs.

Young Adult Reproductive Health Consultant, FOCUS on Young Adults, Pathfinder International, Madagascar, *6/98-7/98* – Member, three-person team to conduct an assessment of young adult reproductive health.

Training Consultant, Family Health International, Paraguay, *4/98-6/98 and 7/97-12/97* - Designed curriculum and served as lead trainer for two workshops on *Dissemination of National Family Planning Guidelines*, one on *Training Techniques*, and one workshop on *Supervision* conducted for MOH physicians, nurses, and district IEC/training staff.

Materials Development Consultant, BASICS, Senegal, *3/98-4/98.* Assisted BASICS Senegal and their MOH counterparts in developing and pre-testing illustrated counseling cards for a child survival program in Senegal.

Training Consultant, Program Against Micronutrient Malnutrition, Rollins School of Public Health, Emory University, Georgia and Malawi, *2/98-5/98* - Developed curriculum and conducted training on *Creating Communication Programs that Change Behaviors for Universal Salt Iodization* for representatives from 12 African nations; designed communications/marketing training manual and accompanying materials for workshops on *Quality Assurance in Micronutrient Malnutrition Programs* in the Georgian Republic and Russia.

Communications/Marketing Consultant, The Futures Group, Mexico, *9/97-10/97* - Evaluated marketing and communications activities of 7 MEXFAM clinics in 5 states. Provided recommendations on how to improve promotional activities to attract more FP and non-FP clients, generate greater income, and achieve economic sustainability.

Resident IEC Specialist, Academy for Educational Development, Madagascar, *2/95-4/97* - Provided institution-building and management in IEC/Training for the Madagascar APPROPOP/FP project. Developed management skills and procedures for planning, implementing, monitoring, and evaluating IEC activities.

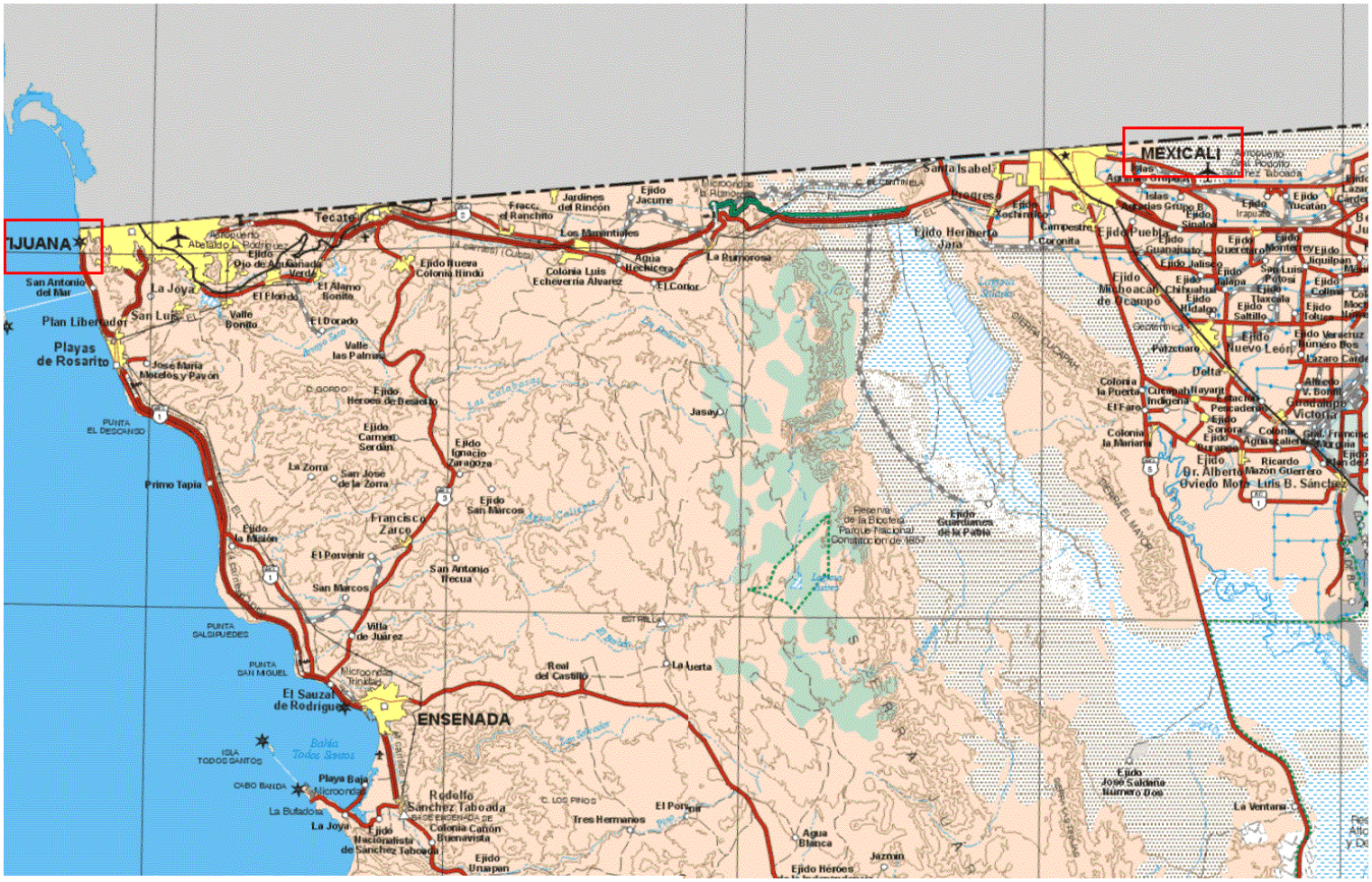
Regional Technical Advisor/Population, CARE, Togo, *7/91-7/94* - Coordinated training, technical assistance, and follow-up for 5 FP/MCH projects and 3 HIV/AIDS projects in Africa and 2 FP/child survival projects in the LAC region. Designed and managed regional workshops for FP project managers in East and West Africa on monitoring and implementation of FP activities.

Assistant Program Officer, Program for Appropriate Technology in Health, DC, *9/88-5/9* - Provided tech. assistance and training in communication, materials development, and counseling/IPC for FP, HIV/AIDS, and child survival in 9 countries.

AIDS Outreach Educator, Community Human Services Project, Monterey, CA, *7/87-7/88.* - Created, adapted, and presented AIDS education curricula to Latinos, IV drug users, and community agencies. Trained health professionals in HIV/AIDS counseling/interpersonal communications.

Bilingual Community Educator, Planned Parenthood of Monterey County, CA, *6/86-7/87* - Coordinated family planning/health programs for Latino communities. Developed, evaluated, and translated IEC materials. Presented family planning/health education seminars to community agencies. Spokesperson on health topics for bilingual radio programs. Recruited, trained, and co-managed 10 youths for teen theater troupe. Produced and distributed teen life video. As Bilingual

Family Planning Counselor/Medical Assistant, provided counseling and clinical assistance for family planning clinic.


TIJUANA
MEXICALI
Tecate
ENSENADA
Playas de Rosarito
San Antonio del Mar
Plan Libertador
La Joya
San Luis
Primo Tapia
Francisco Zarco
El Porvenir
San Antonio Necua
San Marcos
Villa de Juárez
El Sauzal de Rodriguez
Rodolfo Sánchez Taboada
Real del Castillo
La Huerta
Tres Hermanos
Agua Blanca
Jazmin
Ejido Heroes
La Ventana
Delta
Jasay
Santa Isabel
Progreso
Ejido Hermenegildo Galeana
Ejido Puebla
Ejido Michoacan de Ocampo
Ejido Nuevo Leon
Victoria
Ejido Guardianes de la Paz
Reserva de la Biosfera Parque Nacional Constitucion de 1857
Ejido Jose Saldaña Numero Dos
Ejido Br. Alberto Oviedo Mota
Luis B. Sánchez
Ejido Ignacio Zaragoza
Ejido San Marcos
Ejido Carmen Serdan
Ejido Heroes de Desierto
Ejido Nueva Colonia Hindu
Colonia Luis Echeverria Alvarez
Agua Nuevo
El Cotor
La Rumorosa
Los Manantiales
Jardines del Rincon
Ejido Jacume
Fracc. el Ranchito
Aeropuerto Abelardo L. Rodriguez
Ejido Ojo de Agua de Ensenada
Ejido Ensenada Verde
El Florido
El Alamo Bonito
Valle Bonito
El Dorado
Valle las Palmas
Ejido Jose Maria Morelos y Pavon
La Zorra
San Jose de la Zorra
Ejido la Mision
Punta El Descanso
Punta Salsipuedes
Punta San Miguel
Microondas Trinidad
Bahia Todos Santos
Isla Todos Santos
Cabo Bahia
Playa Baja Microondas
La Bufadora
Colonia Cañon Buenavista
Ejido Nacionalista de Sanchez Taboada
Ejido Urapan
Ejido Hermenegildo Galeana
Ejido Puebla
Ejido Michoacan de Ocampo
Ejido Nuevo Leon
Ejido Guadalupe Victoria
Ejido Ricardo Mazon Guerrero
Ejido Lazaro Cardenas
Ejido Veracruz Numero Dos
Colonia Cuauhtemoc Indigena
Colonia Pescadero
Colonia la Mariana
Colonia la Puerta
Colonia Aguascalientes
Ejido Sonora
Ejido Tarango
Ejido Tolima
Ejido Colima
Ejido Jiquilpan
Ejido Tlaxcala
Ejido Saltillo
Ejido Hidalgo
Ejido Chihuahua
Ejido Jalisco
Ejido Guanajuato
Ejido Queretaro
Ejido Monterrey
Ejido Jalapa
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Ejido Tucatan
Ejido Sinaloa
Ejido Irapuato
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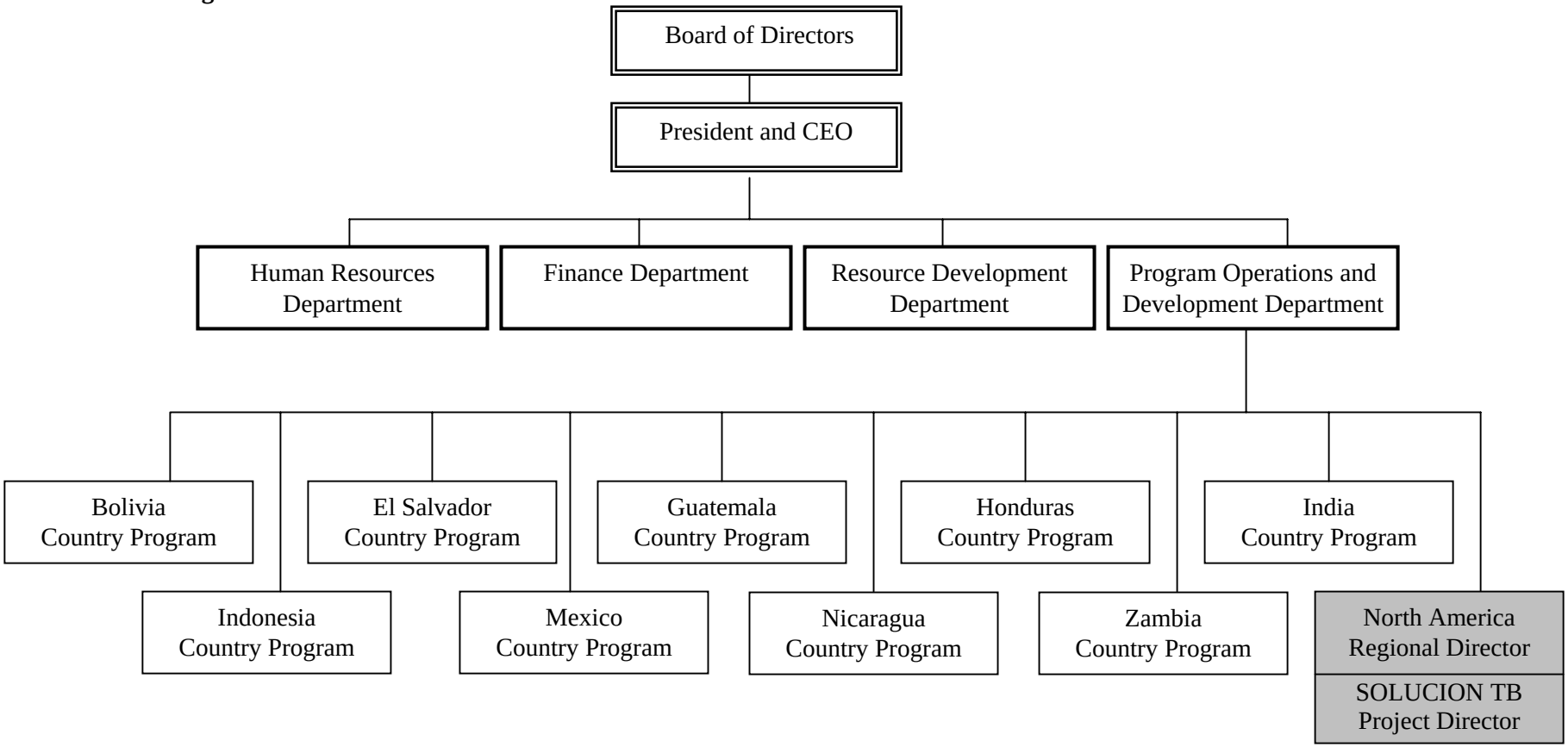
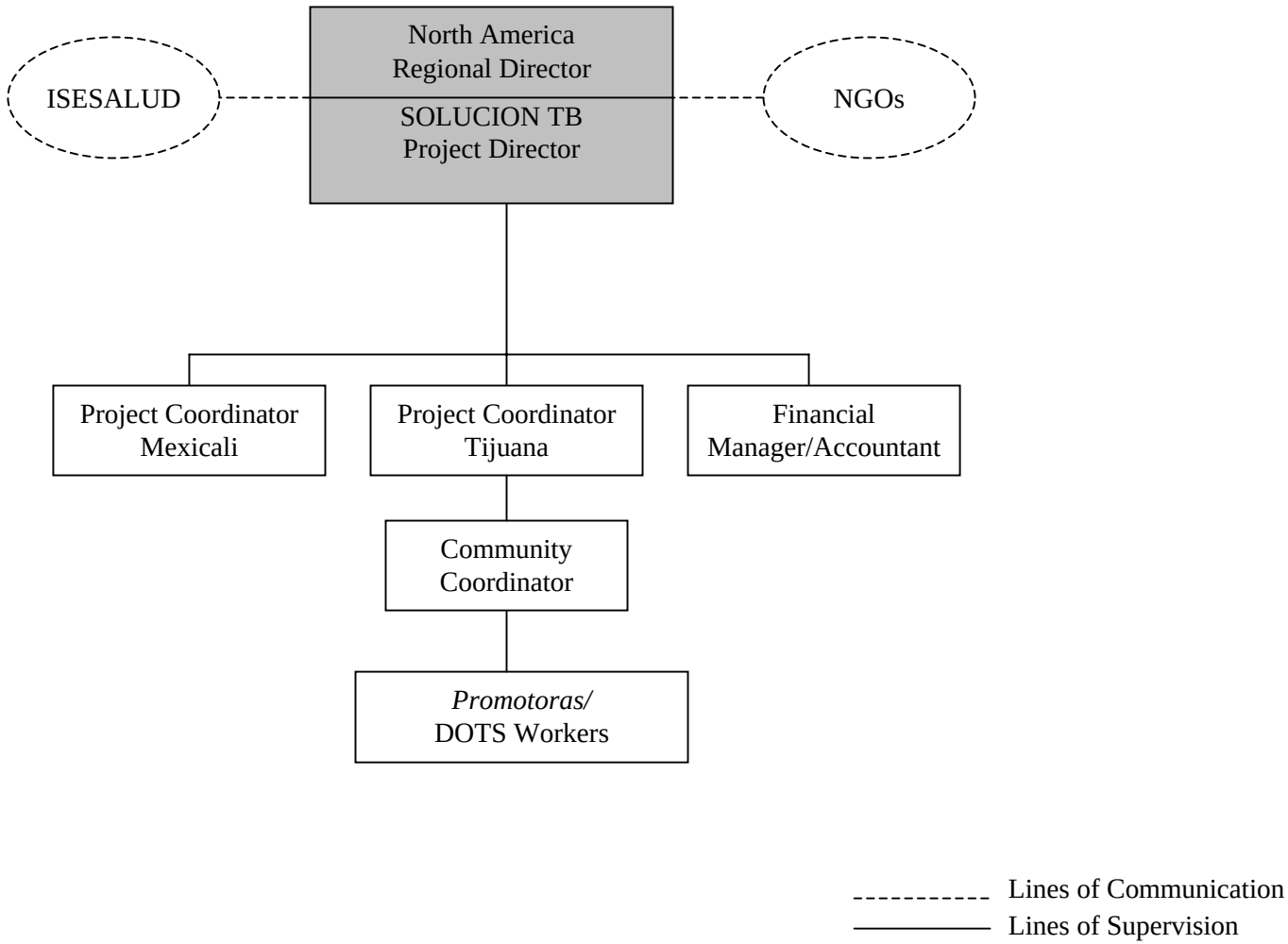
Project Concern International

Organizational Chart



Lines of Supervision

SOLUCION TB Organizational Chart



Workshop for the Development of the Detailed Implementation Plan (DIP)
SOLUCION TB
Tecate, BC, México, March 31, 2005

Participants: Program Director/Coordinators, PCI and ISESALUD program staff, and SOLUCION TB community health workers.

Workshop Objective: Facilitate the use of key qualitative and quantitative data to identify the best strategies and activities for the SOLUCION TB project. To incorporate a sustainability framework to ensure that project activities continue beyond the completion of SOLUCION TB.

Learning Objectives:
During the conference, participants will:

- Study qualitative and quantitative baseline results
- Become familiar with the project's results framework and provide input for adjustments as necessary
- Create a vision of sustainability that includes the elements needed to ensure the sustainability of the project's main objectives
- Identify which indicators of the performance monitoring plan measure sustainability and which indicators should be included
- Commit to a work plan

Time	Topic	Objectives	Comments/Responsible Party
8:30-9:00	Welcome/Objectives Program/Icebreaker	Present the day's objectives and introduce participants; create a comfortable working environment.	Blanca/Lupe/Linda
9:00-15	Introduction to the Project	Create awareness among participants about the project in general	Lupe/Blanca
9:15-10:00	I. Presentation of quantitative results	Introduce the quantitative baseline results and compare the SOLUCION TB results to TB data in B.C. (ISESALUD & others)	Lupe/Linda Group Exercise: Data discovery: the facilitator asks a question and each participant guesses the answer from among 2-3 possible answers. Points are accumulated by participants and a prize is awarded to the person with the highest points. Sample question: What is the total number of TB treatment abandonment cases within the past six months?

10:00	Coffee Break		
10:15-10:45	II. Presentation of qualitative results	Introduce the qualitative baseline results and compare the SOLUCION TB results to TB data in B.C. (ISESALUD & others)	Jesús/Eva/Enrique. The results from the baseline assessment are written on flipchart paper and then arranged on a wall. Each individual walks around the room and writes down their comments or suggestions. A plenary discussion is held.
10:45-11:30	III. Creating a Vision .	Create an ideal vision for the project where each individual knows and understands their role. Each person should also agree on how to ensure sustainability and maximize the use of human resources.	Linda/Blanca 1) What is sustainability? 2) In flipchart paper, define the local system. Each individual explains their role in the project. 3) Each participant will draw the ideal project. 4) Summarize and discuss the results.
11:30-12:15	IV. The sustainability framework. Introduction and the benefit it brings to SOLUCION TB	Describe the framework, increase awareness, and define ways it can be incorporated into SOLUCIOB TB	Linda/Blanca/Erandi Share the diagram and discuss examples.
12:15	Lunch		
12:45-1:45	V. Sustainability Work in groups of three	Offer participants the opportunity to identify which indicators respond to which elements of the results framework and identify those that should be incorporated.	Blanca/Linda/Erandi. Use index cards with the project's indicators. Arrange them on the diagram on the large frame. A discussion follows to identify additional indicators if needed.
1:45-2:15	VI. Perfecting the PMP	Participants will prioritize sustainability indicators and decide which should be incorporated into the performance monitoring plan.	Lupe/Linda
2:15-3:15	VII. Confirmation and development of the project's main activities.	Participants will confirm the main strategies and activities for the project and make adjustments as necessary.	Lupe/Blanca Team work
3:15-3:30	Closing	Offer 2-3 participants (identified by the group) the opportunity to share thoughts on the events of the day.	Blanca

	DIP Workshop Participant List			
Name	**Title**	**Organization**	**E-Mail**	**Telephone**
Ma Gregoria Ouirez	Promotora	PCI	N/A	636-31-75
Maria Eustolia Rodriguez	Promotora	PCI	N/A	636-31-84
Diana Herrera	Promotora	ISESALUD	kadih83@hotmail.com	646-43-24
Paris Cerecea Callu	Program Coordinator	ISESALUD	tuberculosismx@hotmail.com	688-38-04 ext 2127
Kathleen Moser	TB Control	San Diego County HHS	kathleen.moser@sdcounty.ca.gov	619-692-8613
Jose Luis Burgos	TB Control	San Diego County HHS	gm3i@telnor.net	664-973-2817
Linda Morales	MCH Technical Officer	PCI	lmorales@projectconcern.org	858-279-9690
Irma Espinoza Rodriguez	Program Coordinator	ISESALUD	redtaes_bc@hotmail.com	5-56-16-68
Ma. Concepcion Meneses Imoy	HIV/AIDS State Coordinator	ISESALUD	mcmimay@salud.gob.mx	559-5800 ext 4220,21
Erandi Salgado	Regional Desk Officer	PCI	esalgado@projectconcern.org	858-279-9690
Mike Giancola	Volunteer	San Diego County HHS	mgiancol@ucsd.edu	619-291-2171
Oscar Castillo Sosua	Program Coordinator	ISESALUD	castilloo@ssa.gob.mx	646-178-0462 ext 3121
Rodriguez Serrano Martha C	Nurse	ISESALUD	N/A	646-178-04-62 ext 3121
Luz Maria Tamayo P.	Program Coordinator	ISESALUD	lmatape@yahoo.com.mx	646-178-77-01 ext 3121
Ma Guadalupe Felix H	State TB Coordinator	ISESALUD	bacilotb@hotmail.com	686-559-5800, Ext. 4220, 686 556-16-68
Ofelia Morales Arango	Program Coordinator	ISESALUD	ofeliarango@uabe.mx	5-54-84-95
Eva Mendoza R	Community Coordinator	PCI	mscpci@telnor.net	6-33-90-63
Jesus Madrigal	Project Coordinator	PCI	pcimsc@telnor.net	634-1278
Blanca Lomeli	Project Director	PCI	blomeli@projectconcern.org	619 791-2603
Dr. Carlos Alberto Delgado S	Director of Preventive Medicine for Baja California	ISESALUD	albertodelgado@salud.gob.mx	686-559-5800, Ext. 4220, 686 556-16-68

SOLUCION TB
Qualitative Research Report

Drawing from the comments, conclusions and contents of the qualitative research report prepared by Castulina Niño Martínez (consultant),the following content 'elements' are classified and defined into four dimensions: Knowledge, Motivation, Practices, and Work Context (wherein Work Context represents the environment, resources, etc. available for a certain project).

Although the information included in the preliminary report represents the opinions of participants from different perspectives (patients, service providers, responsible authorities, etc.), it must still be analyzed by the team to ensure adequate implementation of the project.

In general, the following relevant information was encountered, which has been validated in accordance with the perspective of those who shared it:

Knowledge	**Practice**	**Motivation**	**Work Context**
• Doctors are apparently unaware of TB statistics • Everyone agrees that TB is a statewide public health problem that is out of control • Either doctors are unaware of the work being done by community health workers, or they fail to recognize it. • Doctors don't recognize DOTS as a usual strategy • Patients lack information about TB and about the implications of its treatment (observation, extension, etc.)	• Different groups agree that DOTS is not applied correctly (no follow-up, no support provided, etc.) • There is no follow-up for patients who abandon treatment. • Insufficient education for patients about their disease, or its implications and treatment. • Insufficient communication among doctors/nurses/community health workers.	• A low morale/motivation perceived in health staff • A low morale/motivation perceived in higher spheres of political support • Low patient motivation • High levels of stigmatization on the part of doctors • Disease of the poor • Difficult patients • 'The specialists are wrong' • Community health workers consider that some doctors treat the patients badly and this reduces treatment adherence.	• Insufficient staff/personnel • Lack of sufficient educational materials • No Petrie dishes available • No BCG • No vehicles for supervision • Insufficient lab technicians • No suitable spaces in clinics for TB patients • No water to take medications

The following are results from the Qualitative Research Report:

RESUTLS (PRELIMINARY)
*From the Detailed Implementation Plan (DIP) workshop

COMMUNICATION
* Internal spreadsheets with periodic data for decision makers and doctors
* DOTS Guide for decision makers.
* Adequate definition and work on the "logic map"
* STOP-TB Materials (tailored)
* NO massive campaigns
* Improve communication among Community Health Workers-Nurses-Doctor
* Prepare a Guide/manual for TB patient counseling
* Send doctors to conferences relevant to the treatment of their own patients.
* Develop a supervsion system and flowchart

STIGMA/Motivation
* "Position" TB in a different view (another vision of the TB patient)
* Search for success stories
* Star Patients
* Stigma Workshops
* Timely educational materials
* Hold semiannual meetings with complete work team (or add the group of doctors to meetings with Community Health Workers)
* Educate/sensitize the patient (as well as health staff) on the patient's rights.

POLITICAL SUPPORT
* Develop an Advocacy Plan for the project
* Develop an annual 'facts sheet' and distribute to key individuals
* Develop a list of key individuals and decision-makers
* Negotiate incentives for DOTS Community Health Workers
* Negotiate support for the project

SUGGESTIONS ALREADY CONSIDERED BY THE PROJECT:

- Resources for DOTS
  (40 DOTS Community Health Workers)
- Lab technicians (2)
- Resources for transportation
- Workshops
- Vehicles (one)
- Computer equipment (to be purchased)
- Internet/communication (to be installed)
- Backpack, materials, and forms

SAMPLE PCI/BORDER HEALTH INITIATIVE
TB TREATMENT SUCCESS STORIES

The following two cases took place in the past year, 2004.

Treatment Success Story # 1

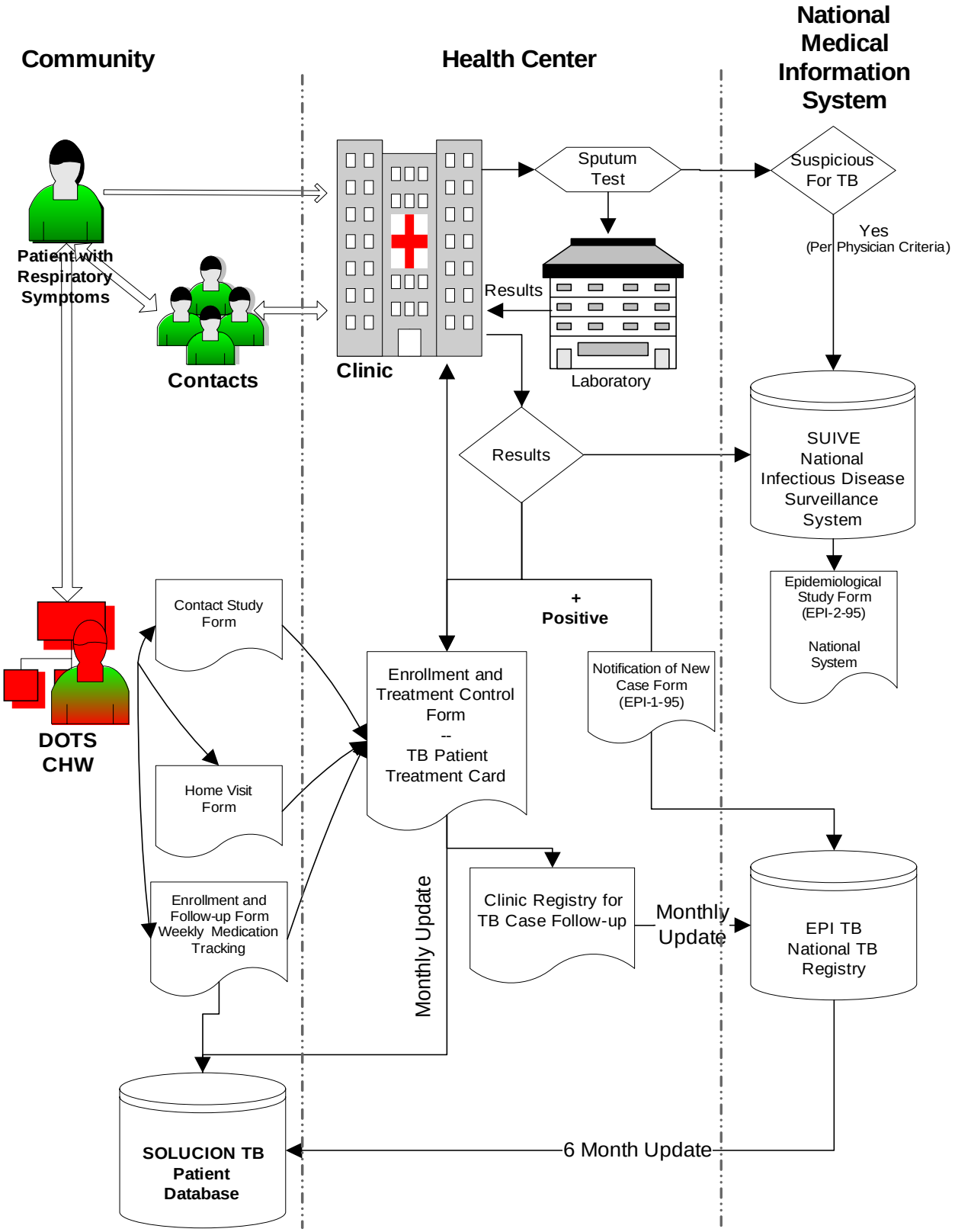
Luis Garcia was a young, thin patient who was suffering from tuberculosis. He was living alone in a room that was lent to him by the owner of the mechanic shop where he worked. The health promoter who occasionally visited him brought Luis fruit and water so to take with his medicine.

Luis felt very depressed because he was alone and had no family to visit him. The health promoter advised him to go to the health clinic for a checkup since it had been three months since he had last gone. Luis agreed to go with her and he continued to go every month until he finished his treatment. The health promoter recently reported that Luis was doing well and that his sense of depression had lifted.

Treatment Success Story # 2

A health promoter made daily visits to a drug rehabilitation center to give treatment to six people. After taking the medicine for two months, the patients began to feel better and wanted to return to work. Since their treatment was not yet finished, the health promoter met the patients at 6:00am every morning so that they could continue to receive their medicine until the treatment was completed.

SOLUCION TB Patient Information Flow Diagram



Quality Improvement Manual

I. Introduction:

The purpose of this *Quality Improvement* manual for *SOLUCION TB* is to serve as a guide to orient the reader in the methodology to be followed to improve the quality of the outcomes of this PCI-ISESALUD collaborative project. Programs geared at improving quality generally emphasize two stages in the process: its evaluation and its improvement strategies. The underlying premise for these methodologies is that there is always room for improvement in quality, as well as the fact that the most appropriate responses come from those individuals closest to the project's action.

The SOLUCION TB program, an alliance between PCI and ISESALUD financed by USAID, will utilize a system based on Quality Circles in order to perform periodic follow-up reviews (quarterly) on the progress and development of the project. Its objective, aside from improving the Tuberculosis situation in the State of B.C., is to create a model that can be replicated in other regions of the country.

Quality Circles are a participatory methodology that has been successfully used by private enterprises and PVOs/NGOs.

The following resources on the issue of Quality Circles have been extracted from PCI's BOLIVIA manuals and presentations. Slight adaptations were made in order to properly match the local context of SOLUCION TB.

The SOLUCION TB work team adapted the Checklists on attachments 1 & 2 during their working session of February 2005.

The indicators, which will show the project's contribution to its own 'sustainability', were identified by the PCI and ISESALUD work team during a Detailed Implementation Plan (*DIP*) workshop held in March 2005.

II. Description of Quality Improvement Strategies

In order to assess and improve quality, the SOLUCION TB project will carry out the following activities and tasks:

- Development of Curricula for training days 1, 2, & 3
- Definition of performance standards (SOLUCION TB 'intervention')
- Definition of gender equity standards
- QIVC for training and DOT
- Development of a Quality Improvement Manual (this manual)
- Training on basic monitoring skills
- Flowchart / Guideline for DOTS process (for health department staff)
- Evaluation of quality and organizational development through I-STAR methodology
- Quality Circle methodology
- Identification of *Sustainability* indicators

In order to guarantee the project's participatory nature, routine follow-up for some of these indicators will be performed within the context of the Quality Circles.

1. Quality Circles

What is a Quality Circle?

Definitions of Quality Circles (QCs) vary. For the purposes of this document, we will use the following:

- A natural work team made up of staff from the same institution, enterprise, or project that perform similar tasks and meet regularly on a volunteer basis during work hours in order to identify the reasons behind existing problems in their jobs and suggest solutions to management

In general, we could say that *"QCs are organizational interventions that seek to increase the organization's productivity and quality of products through the direct participation of its employees; assuming that such participation leads to suggestions that are useful in the improvement of work methods and quality control. Employees will also be involved in the implementation of such changes."*

What is the purpose of QCs?

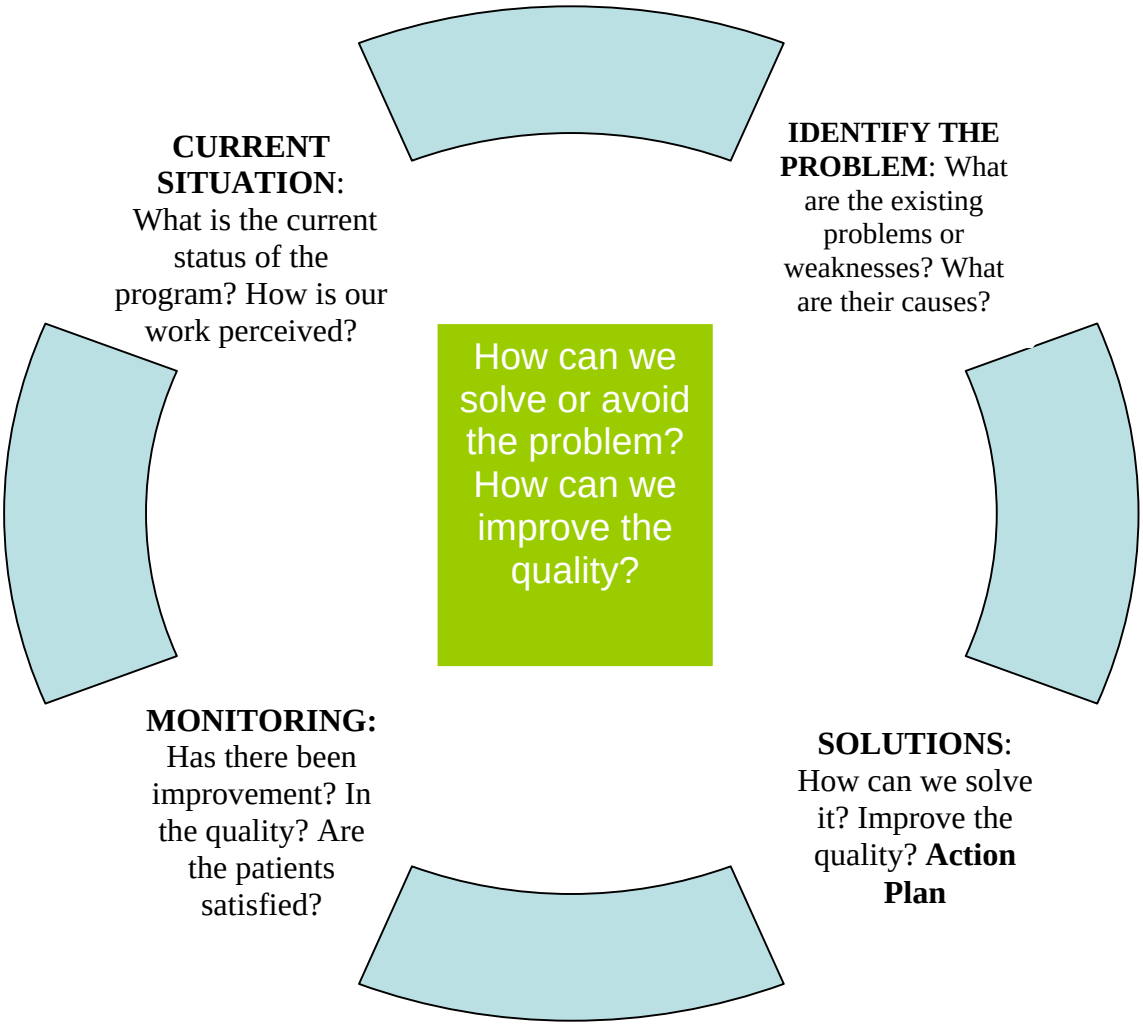
-To contribute to the development and perfection of the institution or project. It is not only a matter of an improvement in numbers or results, but rather a growth in quality, innovation, productivity, and services.

-In order to achieve a workplace that is more suitable for the development of the intellectual and creative aspects of the worker. QCs aspire to create a working environment that is more

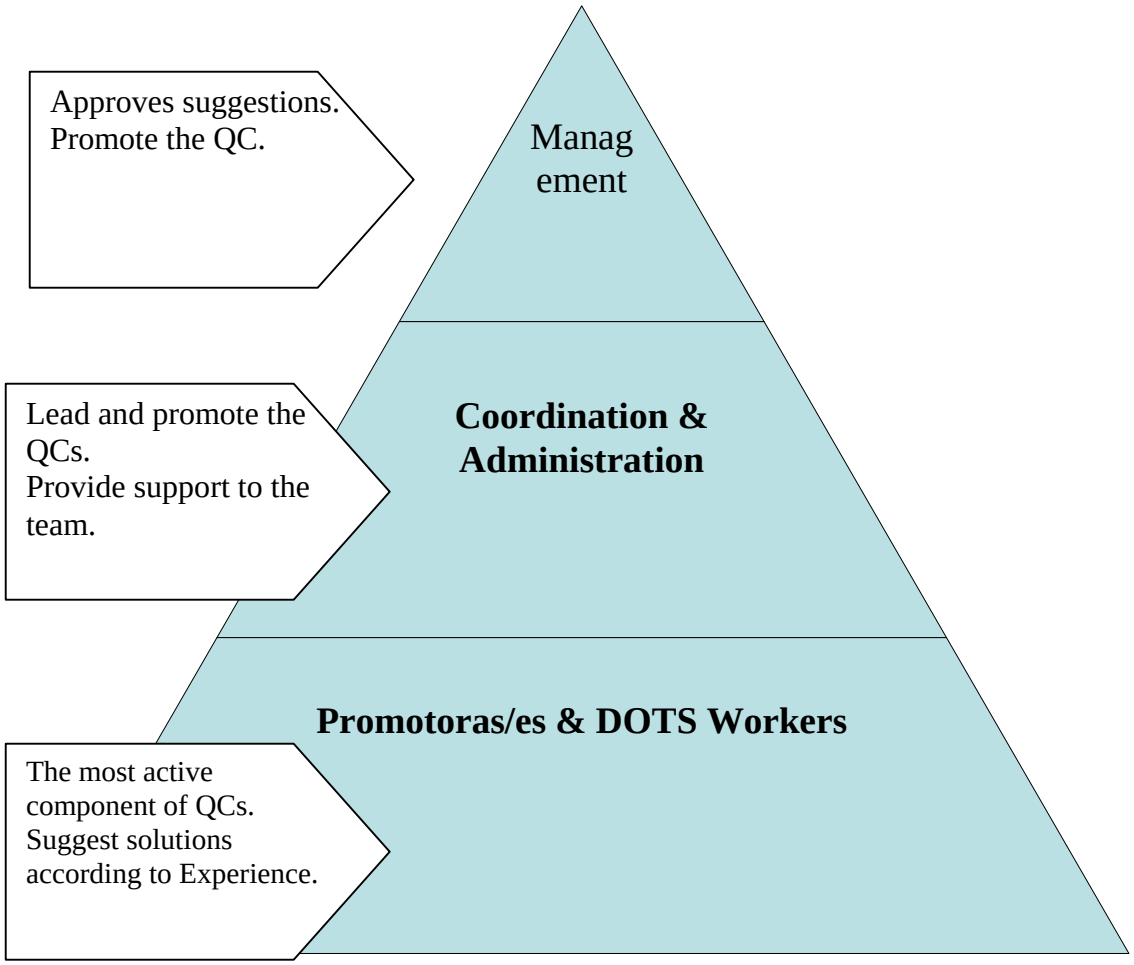
comfortable both physically and emotionally for the workers so that their performance and productivity improves.

-To more fully utilize each individual's capacities. The human factor is the most important and decisive resource for an organization. Its ongoing improvement can have a multiplying effect, which can bring about results that might surpass the most optimistic estimates and predictions.

What are the steps in the development of a QC?



Who participates in the QC?



A QC is composed of a team of individuals from the local project, in this case: SOLUCION TB, ISESALUD, and PCI. The number of participants may vary from 3 to 10 individuals.

What would be the immediate result of a QC?

Expected results of a QC might include at least two proposals/suggestions for problem solving, modification, or corrective measures to procedures, activities, communication lines, processes, tools, behaviors or methodologies that are currently in use but could improve. These solutions must be clear and should focus on activities or processes that directly involve the members of the QC. In other words, “There should be no attempt made to solve a problem originating from causes that go beyond our reach”.

Table No. 1

Identification of problems for the SOLUCION TB project

Participants: …… ……..
…… ……..
…… ……..
…… ……..
…… ……..
Group leader

Activities to solve the problem- Plan:

Problem	Factors that contribute to the problem	Solution	Activity	Responsible party	Due Date	Observations
1.		a. b.	1. 2. 3.			
2.		a. b.	1. 2. 3.			

Expected result/Indicators:

Result	Measurable Indicator	Source
1.- verify	1.1.- 1.2.-	
2.-	2.1.- 2.2.-	

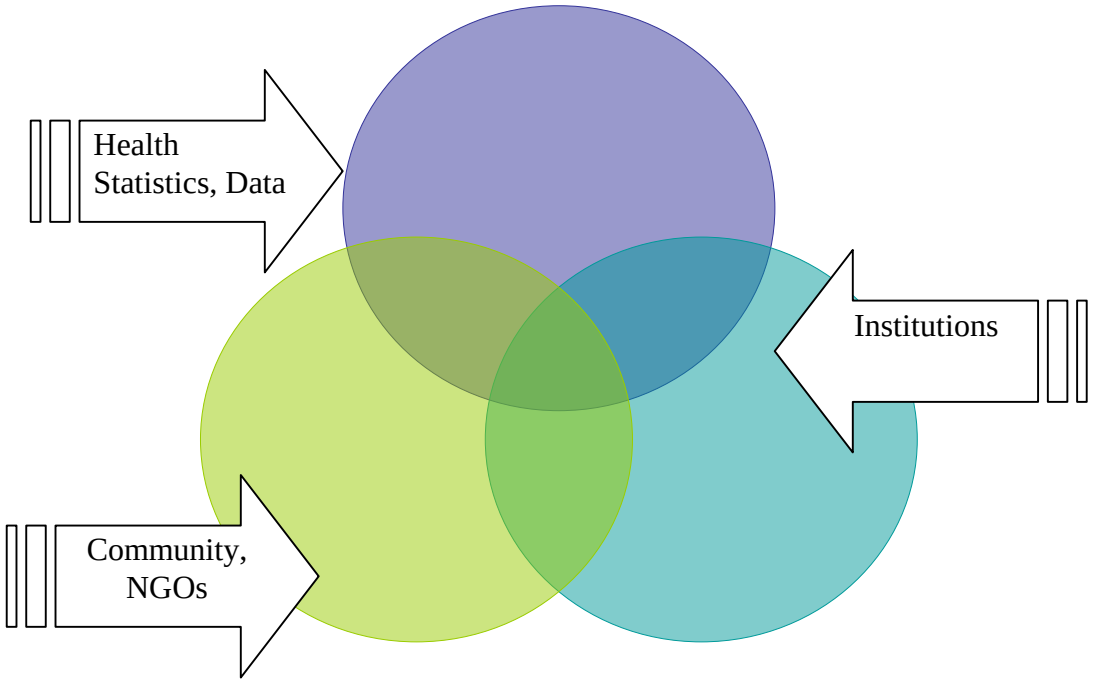
2. Quality Indicators - Gender

The project will follow up regularly on the following data:

a. # of patients, male and female, in the SOLUCION TB COHORTS (SOLUCION TB New Pulmonary TB cases; New Pulmonary TB patients + HIV/AIDS; New Pulmonary TB patients+ Substance Abuse, and Non SOLUCION TB patients)
b. #/% of male and female *promotora/es*
c. # of males and females in management and leadership positions for SOLUCION TB
d. # of staff trained on basic gender-perspective issues
e. Utilization of appropriate language skills (non-sexist) in educational materials developed by the project
f. Male and female patient satisfaction with services received

3. Sustainability Indicators

Sustainability will be measured in three circles or dimensions:



Sustainability Indicators:

a. Treatment Success Rate - Dimension 1, Component 1
b. % of all confirmed new PTB cases being treated by ISESALUD following the *SOLUCION TB* DOTS strategy- Dimension 1, Component 2
c. # of qualified (certified) lab technicians hired and trained – Dimension 1, Component 2
d. % of patients with 3 control BKP – Dimension 1, Component 2
e. % of held vs. planned meetings for project staff- Dimension 2, Component 3
f. % change in ISESALUD budget allocations for TB – Dimension 2, Comp. 4
g. # of DOTS workers *absorbed* by ISESALUD at EOP- Dimension 3, Comp. 5
h. # of Social Service Clubs aware of TB and SOLUCION TB- Dim 3, Comp. 5
i. # of medical students who report their commitment to utilizing/supporting DOTS strategy in their future practices- Dimension 3, Component 6

3. Capacity Building

Capacity Building (CB) strategies have been utilized in private business for over 3 decades. PCI has access to and has utilized a variety of methodologies including I-STAR, a methodology designed and tested by PCI and Educational Development Center.

Building the capacity of organizations is an ongoing process that starts but does not end, since it entails a continuous process of reflection on results achieved and areas of improvement.

Generally speaking, it is considered that there are 3 essential areas to each organization: (1) its mission, defined as the organization's 'reason for being'; (2) resources (human, material and economic); and (3) the systems and processes, represented by the organizational internal processes, which steer the adequate operation of organizations and their programs. Theory has shown that in order for organizations to be successful, these three areas must be relatively balanced.

Capacity Building interventions help identify change areas in organizational capacity. At a personal level, in order to make a change, individuals need to be aware of the fact that such change is needed. People generally do not make changes due to the following three reasons:

- They do not know how to make the change
- They cannot make the change
- They do not want to make the change

Experience with organizational behavior is similar; some NGOs/PVOs are so busy, that they do not realize that they need to make changes. They are so involved in their daily routines, that they do not have the time or the resources to do so. Lastly, perhaps they do not have the motivation to change.

The first step of I-STAR is the formation of mutually beneficial associations between partners to work together to build the capacity of organizations by applying the CB methodology and tools.

I-STAR is based on the premise of "Starting with a Victory", which is why during the evaluation and reflection sessions organizations are invited to recognize their areas of strength and observe those that display great potential for change, areas that could benefit the most from support in way of capacity building activities.

The I-STAR instruments have been tested and adapted in different worldwide locations including countries in Asia, Africa, and America, including Latin America.

I-STAR Principles:

- Self Determination
- Respect
- Informed Decision-making
- Social Commitment

I-STAR encourages participants to self assess indicators in 8 areas of their organization:

A. Program Design	B. Collaboration, Foreign Relations, and Advocacy	C. Financial Management and Administration	D. Human Resource Management
E. Leadership and Strategic Management	F. Staff Participation and Empowerment	G. Resource Mobilization	H. Organizational Learning

SOLUCION TB staff will identify the most relevant capacity building areas and indicators for the project in accordance to a quality and sustainability context. The I-STAR methodology and process will be adapted to SOLUCION TB's needs as deemed appropriate.

The following attachments include interview guidelines for the collection of qualitative information related to involved parties in all of the different projects.

Attachment 1
Process Evaluation Indicators adapted for SOLUCION TB

Areas of Analysis	**Process Indicators**	**a) Very good, b) Good c) Bad d) Doesn't exist**
Efficacy	1) % of objectives accomplished (analysis of indicators)	
	2) % of adherence vs. Projected adherence (85%)	
	3) Degree to which the target population matches the actual population served (New Pulmonary TB Cases)	
	4) Prevalence of Gender equity practices (see prior list of indicators)	
	5) % of project beneficiaries who have reached the goal (specify according to each project)	
	7) % of completion of expected results (per work plan)	
Effectiveness	1) Quality, flow and timeliness in the decision making process	
	2) Timeliness of reporting system	
	3) Transparency in responsibility lines and functions	
	4) Existing or lack of participation planning processes	
	6) Utilization and relevance of feedback systems available to work teams	
	7) Monthly and annual cost per beneficiary	
Sustainability	1) Advocacy mechanisms that have been implemented with the intent to reach financial sustainability	
	2) % change in ISESALUD's budget allocations for SOLUCION TB	
	3) # of DOTS workers who have been transferred to ISESALUD	
Beneficiary Satisfaction	1) Degree to which the benefits perceived by the beneficiaries match the project's intentions	
	2) Beneficiaries satisfaction regarding their expectations	
Partners' satisfaction	1) Collaborating partners' perception regarding their contributions	
	2 Satisfaction of each partner regarding their contribution to the attained results	
Staff Motivation	1) Motivation of staff regarding the achievement of goals and results	
	2) Motivation of staff regarding completion of their assigned project tasks	
	3) Level of satisfaction of staff regarding transparency in the roles and lines of communication	
	4) % of *promotora/es* feeling adequately acknowledged/recognized by supervisors/physicians	

Attachment 2

Quality Circles – Specific Steps

Process	**Activity**	**Potential Technical Resources**
Awareness	• **Knowing the current situation.** Inform all participants of the current situation.	• Review the documents generated during the operation of the project • Project update reports by responsible parties • Field visits and Checklists
	• **Develop a list of problems that might need to be addressed.** The "brainstorming" technique is usually applied in order to produce a list that is large enough to provide a broad enough perspective of the current working conditions in the area.	• Brainstorming • Comparison with/to goals • Interviews with staff • FODA Analysis for the work team and the project • Checklists • Weekly and monthly reports
Identification of problems and proposed solutions.	• **Select a problem to be solved.** Out of the previously developed list, the QC selects a problem to attempt to solve; a good start could be to reduce the previous list by reaching consensus on the most important problems.	• Prioritization of problems
	• **Clarify the problem.** Attempts to have all members understand the meaning and implications of the problem at sake. In order to do this, it might be helpful to answer the questions; what is the problem, and when and where does it arise?	• Presentation
	• **Identify and assess the causes**. Intended to eradicate the cause of the problem. Additional information might be needed. All this information will help the QC in reaching consensus on the most probable cause of the problem.	• Cause-Effect Chart
	• **Identify and assess solutions.** The QC will attempt to formulate a list of potential solutions that will eventually be assessed in function of certain criteria.	• Brainstorming
	• **Decide on a solution.** With all the data on hand, the QC will begin a discussion to reach consensus on the solution that at first seems to be more adequate	• A solution will be selected not democratically but by ***consensus***
	• **Develop a plan to implement the solution.** This plan should explain how the chosen solution will be implemented and what will determine whether it is bringing positive results.	• According to Chart No. 2 on activity planning
Present the solution/ implementation plan	• **Present the plan.** It is recommended to include an approximate estimate of number of beneficiaries that are expected to complete the proposed plan.	• Presentation
Implement the solution	• **Implement the plan.** If the directors approve the plan presented before them, QC members will assume responsibility for their areas of work.	• According to the plan
Assess the results brought about by the solution	• **Assess the results brought on by the proposed solution.** From its implementation, the QC collects and analyzes the information arising from the results of the plan implemented. The intent is not to find out if it works short term, but rather to do long term follow up of its	• The accomplishment indicators from the implementation plan should be evaluated

	effect.	
	• **Optimize the results of the implemented solution.** Not only in an attempt to solve the problems, but also to prevent them from happening in areas where they have yet to appear.	• Plenary discussion
	New Identification of problems. Having a solution to a previous problem on hand gives way to a new cycle of activities geared towards the same purpose.	

Attachment 3

CHECKLIST FOR TRAINER EVALUATION

Trainer's Name:_____ Supervisor:_____
Date:_____

Yes No

PREPARATION

1. The trainer prepared or developed all the necessary information prior to the session? ..... q q
2. The trainer adequately reviewed the necessary notes? ..... q q
3. The trainer appropriately set up the room (tables/chairs) ..... q q

TRAINING SESSION

4. The facilitator remained calmed and avoided getting angry throughout the session . q q
5. Overall, the facilitator managed to carry out the session maintaining a high level of energy and encouragement? ..... q q
6. Facilitator showed an appropriate sense of humor during the training? ..... q q
7. Facilitator asked several questions? ..... q q
8. Facilitator asked the appropriate questions regarding the participants' life experiences and level of education? ..... q q
9. Facilitator allowed enough time for participants to answer questions before responding the questions his/herself? ..... q q
10. Facilitator encouraged participants when they answered questions CORRECTLY? q q
11. Facilitator encouraged participants when they answered questions INCORRECTLY? ..... q q
12. Facilitator avoided monopolizing the conversation? ..... q q
13. Facilitator encouraged participants that had not participated to do so?..... q q
14. Facilitator encouraged discussion amongst participants? ..... q q
15. Facilitator 'mediated' appropriately when and if discussions arose? ..... q q
16. Overall, the facilitator was respectful towards the participants ..... q q

    1 2 3 4 5 6 7 8 9 10
    Poor Excellent

17. Facilitator used his/her notes throughout the training session? ..... q q
18. Facilitator utilized an adequate combination of teaching / learning methods? ..... q q
19. Facilitator used his/her own experiences and anecdotes? ..... q q

.....**Yes No**

20. The facilitator used time according to the overall time guidelines set in the agenda for the session? ..... q q
21. The training was carried out at an appropriate pace considering the level of the participants? ..... q q
22. If there was a need to omit sections, were these adequately selected? ..... q q

22. Brief questions / exercises were used during the training to ensure that participants understood the material presented? ..... q q
23. Were there enough breaks and adjustments to time when needed by participants? q q
24. Facilitator spoke clearly and loud enough? ..... q q
26. Facilitator moved throughout the room when addressing participants? ..... q q
27. Facilitator maintained good eye contact with participants? ..... q q
28. Facilitator used language that was understood by participants? ..... q q

<u>After the Training</u>

29. Facilitator used a learning/ performance checklist or post-test to evaluate changes in participants' skills / practices? ..... q q
30. Tests were appropriately graded and averaged? ..... q q
31. Facilitator was aware of which questions became more confusing to the participants? ..... q q

32. OVERAL TRAINER'S PERFORMANCE EVALUATION

1 2 3 4 5 6 7 8 9 10
Poor Excellent

Comments:_____
_____
_____
_____
_____

Attachment 4

Quality Improvement Verification Checklist For Directly Observed Therapy General List/ SOLUCION TB

DOTS Worker/Community Health Worker:
Name:_____
Name of Supervisor: _____
Community: _____ **Date:** _____
Number of Yes: _____ **Current Note**: ____%
Previous Note:_____%

	Yes	No
1. The DOTS Worker/ CHW had all the necessary **materials for the visit** (backpack, water container, disposable cups, pen (or pencil), appropriate medication)?	q	q
2. Did the DOTS worker/CHW have all necessary **forms** (weekly format)	q	q
3. **Recognized the house**?	q	q
4. **Greeted the DOTS patient** in a friendly manner?	q	q
5. Created a **comfortable environment conducive to DOT**?	q	q
6. Explained **the purpose of the visit** (if first visit)?	q	q
7. Observe the intake of medication and waited 3-5 minutes before leaving the premises?	q	q
8. Probed/asked for symptoms or side effects and effectively responded if there were any?	q	q
9. Provided information on 'Seguro Popular' appropriately	q	q
10. Asked about contact's symptoms and made the appropriate referrals?	q	q
Completing the visit:		
11. Confirmed next visit's time/schedule?	q	q
12. Verified through questions that patient understood all the messages?	q	q
13. Thanked the patient?	q	q

Comments: _____

_____

TB Information System-
Types of Forms, Information Provided & Decisions Informed

Type of Form	Information Provided / Decision to be Informed
Baciloscopy Form	Prepared by the lab. Informs physician on results of baciloscopy. Informs diagnoses (first time) and indicates progress of treatment (control), if patient's case is progressing as expected, and if patient is potentially contagious.
Epidemiological Study Form (EPI-2-95)	Format for immediate reporting of communicable diseases, including TB.
Notification of New Cases Form (EPI-1-95)	Epidemiological information on TB case. Type of TB, clinical history, source and potential contacts. Informs physician and health unit on contacts who need to be studies and potentially treated. Filled out by physician after diagnose has been made.
Health Information System for the General Population Form	This form is used by all physicians for all diseases, including TB. Feeds into the national health system's National Infectious Disease Surveillance System data base (SUIVE). Informs Jurisdiction and health managers on incidence, prevalence, epidemics, etc. Informs budgetary decisions.
Home Visit Form	Used to take information and initiate DOTS treatment
Contact Study Form	Used to identify and track TB patient contacts for follow-up and testing by clinics
Enrollment and Treatment Control Form (TB Patient Treatment Card)	Kept by health unit on a daily basis. Reports on patients assigned to health unit/clinic, type of TB, type of medication and doses intake. Reports on adherence, abandonment, etc.
Enrollment and Follow-Up Form (Weekly Medication Tracking)	This is the weekly form utilized by promotoras to report on patients' daily doses. Decisions by promotoras to report missing doses. Decisions by supervisors on promotoras performance.
Clinic Registry for TB Case Follow-up	Used to create monthly report to EPI-TB National TB Registry on all TB case followed at ISESALUD clinics

Type of Form	Information Provided / Decision to be Informed
Monthly Lab Reporting Form	Monthly report from labs on number of baciloscopies. Report on productivity. Decisions made by Jurisdiction and state officers depending on results.
DOTS Supervision Form	Format utilized by State and Jurisdiction supervisors to assess DOT strategy at the health unit.
EPI-TB National TB Registry	Not a form, but a software and database used to inform and report on TB incidence and prevalence and patients' progress.