Project Assistance Completion Report -PACR
Pan-American Health Organization PAHO, Grant 520G-00-01-00022-00
May 2004

I. BASIC ACTIVITY INFORMATION

Date of Award:	August 3, 2000
Completion Date:	September 30, 2003
Implementing Agency:	Pan American Health Organization PAHO
Total Amount Authorized:	US$ 600,000.00
Total Amount Expended:	US$ 583,766.00
Counterpart Contribution	
Ministry of Health Contribution:	US$ 2,852,000.00
PAHO Contribution:	US$ 133,544.00
Others:	US$ 2,007.00
Counterpart Total	= US$ 2,987,551.00

II. INTRODUCTION

In the mid-1980's the Ministry of Health (MOH) and international donors began a partnership to improve childhood immunization rates in Guatemala. During the meeting held in Canada in 1999, *"XIII Reunion del Grupo Técnico Asesor de la OPS sobre Enfermedades Prevenibles por Vacunacion* ", Haiti and Guatemala were pointed out as priority countries due to the large number of susceptible children that placed these two countries in high risk for serious measles outbreaks. Despite a positive trend in overall immunization rates, coverage for specific diseases was still under the minimum required to halt epidemic outbreaks.

USAID provided PAHO with $600,000 to implement this activity, with *the basic purpose* of improving immunization rates throughout Guatemala, especially in communities with high risk of measles and other immune-preventable diseases. The *main objectives* included:

a) Increase national immunization rates by at least 10-15% for each of the key antigens (DPT3, polio and measles) as measured by the MOH information system (SIGSA).
b) Reduce the number of municipalities at high risk of measles and other diseases (DPT, polio and tetanus) through improved coverage rates as measured by the MOH information system (SIGSA).

c) Provide technical assistance/training to local level health providers to improve the quality and use of an early warning system (epidemiological surveillance system) for vaccine preventable diseases.
d) Improve the cold chain, including assistance to health areas and health districts to improve/maintain refrigerators and thermoses.
e) Promote mothers' understanding of the importance of immunizations and improve their compliance with recommended immunization schedules through a two-pronged approach of better counseling services in health facilities and better information, education and communication (IEC) programs at the local level; this included a special effort to develop linguistically and culturally appropriate IEC materials.

Substantial improvements in coverage rates for key diseases were achieved as shown in the following Accomplishments.

III. MAJOR ACTIVITY ACOMPLISHMENTS

By the completion date on September 30th 2003, progress was made toward the project purpose and objectives. The major *accomplishments and performance indicators* for each of the specific results were:

a) Result No. 1: Immunization Coverage Increased Nationwide with Emphasis in High-Risk Areas

The target was to increase coverage at least 10% over the 1999 baseline. There was a sustained increase in immunization rates for all vaccines from 2000 to 2003. The accumulated coverage, due to horizontal immunization services (permanent provision of vaccines), improved in health facilities. Baseline data for OPV3 and DPT3 in 1999 was 88% and rose to 94% in 2004. In 1999 the measles baseline was 83% coverage and it reached 94% in 2000. MMR vaccine (mumps, measles, rubella) was introduced in 2000 (86%) instead of the prior vaccine for measles alone. It reached 94% coverage in 2003. Substantial improvements were achieved in selected geo graphic areas with high percentage of Mayan population such as Huehuetenango, Totonicapan, Quetzaltenango, Quiché, Sololá, Petén and Alta Verapaz .

The percentage of municipalities with immunization coverage of 80% or less, was reduced from 10% (2000) to 6% (2003); for MMR the municipalities with coverage of 80% or less, were reduced from 22% to 9% in the same period. The abandon-rates between 2000 and 2003 for DPT3/Measles and BCG/Measles were reduced to 6% and 7% respectively.

b) Result No. 2: Early Warning Systems (Epidemiological Surveillance) are Functioning in High-risk Areas

There are important process indicators that need to be achieved for measles eradication and to maintain the polio eradication certification. The target was to achieve at least 80% satisfaction of surveillance indicators for suspected cases of measles (6 indicators) and acute flaccid palsy for polio (4 indicators).

In the case of *measles surveillance,* five out of six indicators achieved or surpassed the standard of 80% satisfaction: 1) *case notification,* increased from 515 suspicious cases in 2001 to 601 in 2003; 2) *case investigation in* 48 *hours or less* was accomplished in 98% of cases; 3) *correct sampling process* was achieved in 99% of cases; 4) *samples arriving to the laboratory before* 5 *days,* increased significantly from 59% in 2001 to 78% in 2003, considering the complex transport and logistical aspects involved in this indicator 5) *proportion of laboratory results provided in four days or less,* increased from 87% to 93% in the same period; 6) *notifying municipalities* was 46% in 2001 and 52% in 2003, *notifying units* was 36% in 2001 and 31% in 2003. Follow up of this indicator requires effective coordination and agreement on roles and responsibilities between the Epidemiology Department, National Immunization Program (PNI in Spanish) and SIGSA information system at the MOH central level, plus effective Health Area/district supervision.

For acute *flaccid palsy surveillance for polio,* three out of four indicators achieved the expected level of satisfaction: 1) *number of cases reported,* increased from 65 cases in 2000 to 101 cases in 2003, active surveillance and past year review supported this significant improvement; 2) *case investigation in* 48 *hours or less* was accomplished in 91% of cases; 3) *correct sampling process* increased from 74% in 2000 to 91% in 2003. This level is well above the international requirement and reflects improved national capacity to detect wild poliovirus if at any time it would be introduced again to the country; 4) weekly reporting from notifying units was 53% in 2003, as well as the measles negative reporting indicator, which depends on coordination and role definition among several MOH central level offices.

Overall, there has been progressive improvement in complex surveillance indicators, faster reporting processes, prompt case investigation and improved data quality.

c) Result No. 3: Community Participation and Vaccine Acceptance are Increased.

In the case of measles and MMR vaccines, coverage rates increased in municipalities with more than 75% of Mayan population. Coverage rose from 84% in 2000 to 92% in 2003. DPT had no significant variation, because in 2000 the coverage was already over 90%, achieving 91% in 2003. Information, education and communication (IEC) strategies were implemented to increase vaccine demand and acceptance. Mayan language materials were developed and community participation was actively promoted. The most significant achievement is related to equity, i.e. improved vaccine access for the underserved Mayan population in priority municipalities.

d) Result No. 4: Immunization Cold Chain Functioning Properly

The training target related to cold chain norms was achieved in 100%, 89% of trainees had 80 points or more in post-test evaluations. Seventy three (73%) of all health facilities updated their cold chain inventory every quarter. Monthly monitoring of vaccine loss was performed; the application of emergency plans was also constant.

e) Result No. 5: National Immunization Program is Properly Managed

Managerial capabilities have been transferred to national counterparts and now all management, technical and logistic aspects related to programming, surveillance and training are developed by PNI personnel.

As a direct consequence of USAID support the PNI has management indicators to conduct a situation analysis to monitor program performance. Furthermore, on an annual basis, the PNI develops and distributes programmatic guidelines for the national and local levels; these standardized guidelines are shared with national and international institutions, public sector, NGOs and private sector organizations, promoting an integrated response for immunization interventions.

To improve coordination and effectiveness of the PNI, an Executive Immunization Committee was created. Members include, but are not limited to: PNI, MOH monitoring unit (USME), Epidemiology Department, SIGSA, National Laboratory, pharmaceutical product control unit and surveillance unit, social communication limit, service provision units (UPSI-UPSII), INCAP and PAHO. SIGSA forms were revised to improve data quality and the arrival time of information from health facilities to the central level was substantially reduced.

National Immunization Program personnel have the necessary skills to develop risk assessments, stratify intervention areas, use electronic tools and determine the most effective responses for national or local levels. Besides they have been enabled to apply improved investigation methodologies i.e. active search in epidemiologically silent areas/units, rapid assessments. MOH/PNI has been successfully represented at international meetings that monitor country and regional level commitments and targets related to immunization.

IV. LESSONS LEARNED

- It's not necessary to change the MOH reporting system to achieve significant improvements in the quality of information and thereby have a positive effect on coverage rates. The existing system, functioning at an optimum level, provides reliable information about coverage rates at the national, area and municipal levels, per vaccine type, number of doses and monthly coverage. This monthly reporting analysis with feedback to health facilities need to be continued and strengthened.
- Surveillance systems for Measles and Polio are strong within the MOH, and meet international and national standards. MOH personnel exercise a leading role that needs to be recognized and encouraged. The political priority given to these

interventions needs to be reflected in adequate resource allocation. Active case-study research and negative-case notification are important strategies that improve surveillance data; these need to be continued. When it comes to surveillance, clear roles for laboratory, program and implementing units, are key to achieve expected results.

- Administrative load and management style prevalent in the MOH make it difficult to further improve a single program's performance such as PNI. Frequent and long meetings, no delegation of authority, personnel rotation, lack of follow up to previous agreements, absence of induction to post mechanisms, etc. are limitations. One managerial best practice to be continued is the provision of annual standardized guidelines for health area and municipal levels. Also the use and analysis of management indicators at the program level needs to be continued.
- Although the "salas situacionales" (health information situation rooms) are developed, their analysis focuses on the latest data. No trend analysis or managerial aspects are discussed. There is no follow up of previous agreements. This weakness is not only associated with immunization but all other aspects analyzed in the "salas situacionales"; follow up to previously determined actions needs to be assured.
- Stratification of municipalities and communities based on coverage and demographic criteria is an effective tool to improve coverage rates and equity. National guidelines that were developed to characterize and rank municipalities should continue to be applied and improved.
- Efficient management and logistic control of existing cold chain at the local level remains a challenge; its follow up depends on constant supervision to ensure compliance with programmatic and normative guidelines.
- Coordination within MOH units and between institutions (INE, SIGSA, Epidemiology, PNI) needs to be continued and strengthened. In terms of notification units and surveillance, the commitment of other actors such as the Epidemiology Department, is key to success.
- Interventions need to be supported by BCC (behavior change communication) and promotion activities adapted to local conditions and needs. Cultural considerations and language constraints are key elements for a successful BCC and promotion strategy. Adequate technical support, resources and monitoring need to be continued for this component. Community participation must be continuously encouraged and improved, not only for vaccination activities but for surveillance and situational analysis.
- A common weakness throughout the MOH is the quality and coverage of supervision; it focuses on crisis actions, Technical aspects are not adequately covered, mentoring is absent and coordination with service providers is not systematized. This needs a more holistic approach and integral improvement within the MOH.

V. FINANCIAL CLOSEOUT AND AUDITS

De-obligation of unspent funds: notification was received from PAHO that US$16,233.96 were not spent.

Counterpart Contribution: PAHO and the MOH fully complied with counterpart obligations.

Audits: According to Standard Provisions of PIO Grant Agreements, the Grantee is audited according to PAHO audit regulations and procedures.

VI. SOURCES OF INFORMATION

PAHO Grant No. 520-0428.00.01

PAHO Grant amendments

PAHO Grant final report.

PAHO final financial report

PAHO grant counterpart reports

VII. KEY CONTACTS

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Clearance Page
PACR PAHO
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Drafter:

L Peinado/OHE: ____________________ Date: __________

Clearances:

B. Lopez/OHE: [signature] Date: June 9, 2004

M.A. Anderson/OHE: [signature] Date: 6/9/04

G. Cordón/PDM: [signature] Date: 11/9/04*

R. Morales/FMO: [signature] Date: 11/19/04

* please excuse the clearance delay I had offered to review because it has several writing errors that I had offered to correct, but folder got boxed with many other documents which was moved from the [illegible] floor. [illegible] [illegible] [illegible]