PD-ABD-912
ISA 76212

Agency for International Development
Washington, D.C. 20523

Assistant Administrator for
Latin America and
the Caribbean

Dr. Carlyle Guerra de Macedo
Director
Pan American Health Organization
525 23rd St., N. W.
Washington, D. C. 20037

Subject: Accelerated Immunization II Project
Project Number: 598-0786
Grant No. LAC-0786-G-00-1031

LAC Regional Incremental Funding
Appropriation No. 72-1121021.7
Budget Plan Code LDCA92-35598-KG12
Obligation No. 598-0786-3-2657005[1]
Amount $2,000,000

Mexico Buy-in
Appropriation No. 72-1121021
Budget Plan Code LDCA-92-25523-KG12
Obligation No. 598-0616.23-3-20002
Amount $250,000

Nicaragua Buy-in
Appropriation No. 72-112-1021.7
Budget Plan Code LDCA-92-25524-KG13
Obligation No. 524-0321-3-20012
Amount $1,281,472

Amendment No. 1

Dear Dr. Guerra de Macedo:

1. This letter is Amendment No. 1 to our Grant Agreement dated July 10, 1991, to provide additional grant funds to the Pan American Health Organization in the amount of $3,531,472 to be used for support of a project to increase the efficiency and effectiveness of immunization service delivery in the Americas in order to reduce morbidity and mortality among children and women of childbearing age from immunopreventable diseases (the "Project").

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[1]These references pertain only to the funds added by this Amendment: see original letter for references applicable to other funds. The same applies to the other citations below.

The project components include improving norms, training, and supervision of immunization services, improving targetting of immunization program resources, and improving sustainabililty of immunization services.

2. This Amendment is effective and obligation is made as of the date of this letter and shall apply to commitments made by PAHO in furtherance of Project objectives during the period beginning with the effective date and ending July 31, 1996.

3. This Amendment provides US $ 2,000,000 of LAC Regional Funds, US $250,000 of Mexico Funds, and $1,281,472 of Nicaragua Funds.

4. A.I.D.'s total estimated contribution to the Project will be provided in increments not to exceed a total of Twenty Million United States Dollars (US $20,000,000) during the period from July 10, 1991 through July 31, 1996. The amount obligated to date, including this first Amendment, is US $5,733,970 as described in Attachments A and B. Subsequent increments will be subject to the availability of funds to A.I.D. for this purpose and to the mutual agreement of the Parties, at the time of a subsequent increment, to proceed.

5. Funds granted hereunder will be used for the Project activities outlined in the Grant Agreement of July 10, 1991 in the case of the LAC Regional funds, and as outlined in Attachments C (Mexico) and D (Nicaragua) to this Amendment.

6. In all other respects, the Grant Agreement dated July 10, 1991, remains in full force and effect.

7. Please indicate your acceptance of this Grant Amendment No. 1 by signing the original and eight (8) copies of this Letter in the space provided below and returning the original and six (6) copies to the Grant Officer. Two copies may be retained for your files.

THE UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT

BY: A. S. Williams
James H. Michel

TITLE: Assistant Administrator
Bureau for Latin America
and the Caribbean

DATE: MAR 30 1992

Pan American Health Organization

BY: _____
Carlyle Guerra de Macedo

TITLE: Director

DATE: 31/III/92

Enclosures:

Attachment A: Summary Budget Table
Attachment B: Budget History
Attachment C: Scope of Work for Mexico Buy-in
Attachment D: Scope of Work for Nicaragua Buy-in

ATTACHMENT A

SUMMARY TABLE OF OBLIGATIONS
ACCELERATED IMMUNIZATION II GRANT TO PAHO
LAC-0786-G-00-1031-00

	FY 91	FY 92	Total
Regional			
LAC Reg Child Survival Funds	2,000,000	2,000,000	4,000,000
Buy-Ins			
Nicaragua	202,498	1,281,472	1,483,970
Mexico	0	250,000	250,000
Sub-Total Buy-Ins	202,498	1,531,472	1,733,970
Totals	2,202,498	3,531,472	5,733,970

ATTACHMENT B

BUDGET HISTORY
ACCELERATED IMMUNIZATION II GRANT TO PAHO
LAC-0786-G-00-1031-00
(US $1,000s)

DOCUMENT	AMOUNT US$	DATE	PURPOSE
Original	$2,000	July 10, 1991	General Budget Support
	202	July 10, 1991	Nicaragua Buy-in
Amendment 1	2,000	TBD	General Budget Support
	250	TBD	Mexico Buy-In
	1,282	TBD	Nicaragua Buy-In

ATTACHMENT C

SCOPE OF WORK FOR AN A.I.D./MEXICO BUY-IN TO THE ACCELARATED IMMUNIZATION PROJECT PHASE II

I. ACTIVITY DATA

Title:	Accelerated Immunization Project: Phase II
Implementing Agency:	Pan American Health Organization (PAHO)
Estimated Life of Project:	FY 1992-1995
Objective:	To interrupt the transmission of measles and control the disease in Mexico by 1995.

B) PURPOSE

Through a buy-in to Phase II of the Accelerated Immunization Project, A.I.D/Mexico will support the Expanded Program on Immunization Plan of Action for the control of measles in Mexico. It is expected that this program will contribute to the reduction of infant and child morbidity and mortality rates from vaccine preventable diseases. Measles accounts for the highest mortality among vaccine preventable diseases. In 1990 approximately 90,000 cases of measles were reported in Mexico with an incidence of 80 per 100,000 inhabitants, the highest rate registered in Mexico in more than twenty years.

C) STATUS OF PROJECT ACTIVITY:

During Phase I of the Accelerated Immunization Project (1987-91), A.I.D./Mexico participated as a member of the Inter-Agency Coordinating Committee (ICC) composed of the Direccion General de Epidemiologia (DGE), the Consejo Nacional de Vacunacion (CONAVA), Rotary International, UNICEF, PAHO, and recently JICA.

During the past four years through September 1991 the project has achieved the following objectives:

- There has been a significant decline in the number of new polio cases. Incidence decreased from 144 confirmed cases in 1985 to 7 confirmed cases in 1990. There have been no new cases of the wild polio virus in Mexico since October 1990.

- Coverage levels for all EPI antigens BCG, TOPV3, DPT3, measles) exceed 80% for children under one year of age.

- The system for epidemiological surveillance has been strengthened. As of February 1992, 12,000 health centers report on EPI diseases weekly. In addition, there are approximately 400 sentinel sites, which include all major hospitals and clinics.

- High risk areas for NNT have been identified. In these areas, aggressive immunization campaigns are targetting women of childbearing age. By the end of 1991, in 97 high risk communities, all women of childbearing age will have been innoculated against NNT.

Despite considerable progress under Phase I, much remains to be done. On July 10, 1991, A.I.D./W signed a follow-on grant with PAHO for Phase II (1991-1995) of the Accelerated Immunization Project. A.I.D./Mexico wishes to buy-in to this project in order to obtain technical assistance which will contribute to the control of measles in Mexico.

BACKGROUND

Measles is one of several diseases in the Americas which has been targetted for control or elimination. In the 1970's reported measles occurence rates fluctuated widely, reflecting the cyclical nature of occurence, the effect of migration patterns, and varying types of surveillance. The incidence of measles showed a rapid decline in the 1970's due to the introduction of the measles vaccine, which disrupted the previous cyclical occurence pattern.

Although the introduction of a vaccine represented an important advance in measles control, substantial segments of the population still remain unvaccinated. During the 1980's abnormally low levels of measles activity along with large numbers of susceptible children combined to create the conditions necessary for a substantial outbreak. In 1990, almost 90,000 cases were reported in Mexico, the highest level of occurence in more than 20 years. Compared to the pre-vaccination era, the proportion of cases among school age children was high. This situation has continued into 1992.

The measles epidemic of 1990 prompted large vaccination campaigns in the Mexican states where transmission was highest, as well as in neighboring Central America and the U.S. This action has had a favorable impact on levels of transmission and on the future occurence of measles.

PROBABLE FUTURE OCCURENCE

A confluence of factors exists which suggests that measles occurence in Mexico will be low for the next two to three years. First, the

major epidemics in 1988 and 1991 have eliminated susceptibility in large numbers of unvaccinated children. Second, the measles vaccination campaigns launched as a result of the epidemics delivered hundreds of thousands of doses of vaccine in addition to those provided by the routine vaccination program. Third, measles control is a stated goal of both the "Programa de Vacunacion Universal" and the "Programa de Vacunacion Escolar". The impact of these programs on the slowing or possible interruption of transmission will not be known until the intensive vaccination campaigns are completed in late 1992, and an evaluation of these activities is conducted.

A key objective of this evaluation will be the pinpointing of remaining susceptible pockets where mopping up campaigns will be necessary. Remaining pockets of transmission need to be identified and contained. Critical to measles occurence beyond the next two to three years will be the slow build up of a susceptible population from future birth cohorts, even if 95% vaccination of the target population is achieved. Per cent covered is not synonymous with per cent immune.

Current measles vaccines are 95% efficient under field conditions, so that even with 95% coverage, approximately 10% of each year's births will not be immune. In a few years, this will constitute a population of tens of thousands of susceptible children. In addition, the susceptible population is constantly increasing due to the migration to Mexico of children from countries with low coverage rates such as Guatemala and other Central American nations.

PROGRAM STRATEGY

In order to meet the challenge of controling the indigenous transmission of measles, it will be necessary to step up all prinicple components of the EPI strategy. The first component, surveillance, must be in place before the start up of any other activities. The four components essential to a measles control program are:

1. An enhanced surveillance system capable of documenting and initiating investigation of new cases, as well as certifying cases of non-occurence.

2. Intensive immunization campaigns (Vacunacion Universal and Vacunacion Escolar) to insure rapid achievement of high levels of coverage in a broad target age group (all children) through 1992.

3. Maintenance of coverage in one year olds and strict monitoring of immunization status at time of school entry.

4. Aggressive outbreak control and research in order to control indigenous transmission by 1995.

7. LABORATORY SUPPORT $ 5,000

Purchase of equipment for IgM ELISA for identification of measles antibodies in blood sera microsamples. Training in the installation of lab technology, as well as in the reading and interpreting of lab results at the central level (INDRE). Installation of adequate communication facilities, such as modem and fax, at measles laboratories for rapid feedback of lab results.

8. TRAINING AND EQUIPMENT FOR 20 LABORATORIES $12,000

Approximately 20 laboratories, among them 11 regional labs, need adequate training and equipment so that laboratory diagnois can be carried out outside the central laboratory. Continuous monitoring of performance and quality as well as the installation of communication equipment will be required.

9. TRANSPORT OF LABORATORY SAMPLES $10,000

Covers transport of blood samples from the site of the case diagnosis to the laboratory. This activity and the quality of the service are crucial to the success of the program. Commercial carriers, such as DHL, who already have experience in the shipping and handling of biological material will be contracted for this purpose.

10. MATERIALS FOR SENDING AND STORING, COLD CHAIN $10,000

Includes reverse cold chain equipment, plastic microvials for blood samples, blood lancets, and supplies for the proper storage, shipping, and handling of samples under adequate refrigeration.

TOTAL 1992 $90,000

ACTIVITIES TO BE SUPPORTED UNDER A.I.D./MEXICO BUY-IN TO ACCELERATED IMMUNIZATION PROJECT (PAHO)

January 1, 1993-December 31, 1993

1. PERSONNEL (General Directorate of Epidemiology)	$25,000
2. IMMUNIZATION BRIGADES (CONAVA)	$15,000
3. ASSISTANCE TO SOCIAL SECURITY INSTITUTIONS	$15,000
4. TRAINING AND SUPERVISION FOR SANITARY JURISDICTIONS	$10,000
5. PRINTED MATERIALS	$ 5,000
6. SEMINARS AND PRIVATE SECTOR TRAINING	$10,000
7. LABORATORY SUPPORT	$ 5,000
8. TRAINING AND EQUIPMENT FOR 20 LABORATORIES	$15,000
9. TRANSPORT OF LABORATORY SAMPLES	$10,000
10. MATERIALS FOR SENDING AND STORING, COLD CHAIN	$10,000
TOTAL 1993	$120,000
TOTAL 1992	90,000
OVERHEAD AND ADMINISTRATION (1992-1993)	40,000
GRAND TOTAL	250,000

ACTIVITIES TO BE SUPPORTED UNDER A.I.D./MEXICO BUY-IN TO ACCELERATED IMMUNIZATION PROJECT (PAHO)

April 1, 1992-December 31, 1992

1. PERSONNEL (General Directorate of Epidemiology)_____$20,000

Salaries of three epidemiologists in charge of data collection and analysis as well as feedback to field operations. The epidemiologists will serve as a link to CONAVA which will carry out coverage analysis and mop-up activities.

2. IMMUNIZATION BRIGADES (CONAVA)_____$10,000

Ten mobile brigades in charge of supervision of CONAVA field activities. Principal tasks are the analysis of vaccination coverage at the site of an outbreak and the coordination and supervision of mop-up activities intended to confine and control the outbreak.

3. ASSISTANCE TO SOCIAL SECURITY INSTITUTIONS_____$10,000

The Mexican social security institutions, IMSS and ISSSTE, have their own budgets for the measles control initiative. However, seminars for technical discussion and logistical assistance for their integration into the national surveillance plan is imperative.

4. TRAINING AND SUPERVISION FOR SANITARY JURISDICTIONS___$ 5,000

The sanitary jurisdictions are the first filter for detection of rash and fever illness in the field. The desicion between suspect and probable case is made at this level. The follow-up case study, reports to the central level, and preliminary lab tests are all carried out by jurisdictional epidemiologists. They will need ongoing training and supervision to promote effective performance.

5. PRINTED MATERIALS_____$ 3,000

Printing of technical manuals and other materials for training personnel, forms for the surveillance system, newsletter for reporting results to the medical community and the population at large.

6. SEMINARS AND PRIVATE SECTOR TRAINING_____$ 5,000

The integration of private sector institutions and physicians is essential to successful measles control. Training seminars and workshops will be held to advocate the continuous participation of the private and NGO sector in surveillance and control activities.

IMPLEMENTATION

Vital to the success of any program is a well-coordinated and managed approach. This approach usually implies a centralized responsibility for all surveillance and control activities. In Mexico, the Consejo Nacional de Vacunacion (CONAVA) is responsible for overseeing the immunization program while the Direccion General de Epidemiologia is responsible for disease surveillance. Both entities need to be involved in the ongoing management and epidemiological aspects of the program and in maintaining the information system related to control efforts. CONAVA and DGE need to provide technical and management support as well as training for personnel working in various aspects of the program. Links must be established between epidemiology and management. For example, information on disease and control activities should be kept up to date so that the current status of measles cases within any given geographical area can be evaluated at any time.

Training courses and management seminars for personnel play a crucial part in preparing personnel in the effective implementation the measles control strategy, as well as in the successful involvement of the NGO and private sector into program activities.

ATTACHMENT D.

SCOPE OF WORK

I. BACKGROUND

The protection of the infant and young childhood population with the four Expanded Program of Immunization (EPI) vaccines has been a priority of the Nicaraguan government for the last ten years. The result has been the eradication of polio from Nicaragua since 1982 and notable reductions, until this year, in deaths from measles. Pertussis ("whooping cough") deaths have also declined. Nicaragua, along with the other Central American countries has adopted the goal of achieving universal vaccine coverage.

In order to achieve this goal the Ministry of Health, community volunteers and others have carried out a series of activities resulting in a two to three hundred percent increase in immunization coverage over the last ten years. Nevertheless, and despite these efforts, the country still finds itself at some distance from achieving the goal of universal vaccine coverage. The purpose of this buy-in is to assist the Ministry of Health through the AID/LAC - PAHO agreement to immunize children under 5 and especially those under one year of age to achieve 80% coverage in DPT, BGG, polio, and measles by the end of 1992. This year Nicaragua, through this AID assistance, will surmount the traditional problems of large scale immigration of many persons who have inadequate vaccination. Through the funding of vaccination campaigns, regular vaccination efforts, and special efforts by epidemiologists throughout the country, AID will help improve coverage. AID will work toward stopping epidemics which use a disproportionate amount of resources to address immediate problems that drain the health system of needed funding.

II. CURRENT STATUS

At present, Nicaragua has just ended a measles epidemic which began in April, 1990. Nicaragua has not had a case of polio since the early 1980s and it has also improved surveillance of polio cases to assure eradication from Nicaragua. By October, 1990, the MOH had immunized 110,000 children under the age of one year, approximately 80% of the population in this age group. The other immuno-preventable diseases are staying within normal endemic ranges.

III. STRATEGY FOR ACHIEVING 80% COVERAGE

The current project is designed to meet the more modest goal of 80% vaccine coverage of children under the age of one year and

women of fertile age. The specific plan for achieving this coverage is laid out in MINSA's annual EPI Action Plan and has the following basis strategic elements:

- house-to-house vaccination in hard to reach and high priority areas.
- Strengthening of on-going health center vaccination through improving the readiness to immunize children and pregnant women upon admission, in the medical visit, upon enrollment in other programs and while being hospitalized.
- "micro" vaccination campaigns aimed at those children who do not have completed vaccination schemes.
- mobile brigades to cover areas which have been inaccessible in previous years.
- improvement of the epidemiologic surveillance system from the local level up to higher levels.
- training and up-dating of health personnel assigned to the vaccination program at all levels.
- intersectoral participation.

The implementation of the strategy is the responsibility of the Ministry of Health's Maternal and Child Health Division. The program is supported by assistance from the Pan American Health Organization (PAHO), United Nations International Children's Emergency Fund (UNICEF), Rotary International and AID as well as with national funds. Coordination of the program is accomplished through an Inter-Agency Coordination Committee which meets on a monthly basis to identify and resolve problems. AID's resources are channeled through a Mission "buy-in" to the AID/W Accelerated Immunization Project with PAHO.

IV. OBJECTIVE OF USAID/NICARAGUA ASSISTANCE

To provide assistance to the Ministry of Health of Nicaragua in collaboration with other donors to achieve 80% coverage of children under the age of one year and 70% of women in fertile age (since the tetanus toxoid program is new).

V. ACTIVITIES

A. <u>Supplies</u>: Purchase of syringes and reproduction of vaccination cards and other supplies (excluding biologicals) as needed.

Attachment No. 2
ILLUSTRATIVE BUDGET FOR THE EPI PROJECT
524-0321

BUDGET CATEGORY	TOTAL LOP	OBLIGATIONS TO DATE	THIS PIO/T	TOTAL OBLIGATION
Vaccines	$760,600	$352,600	$556,500	$909,100
Research	$50,000	$25,000	$20,000	$45,000
Cold Chain	$370,289	$185,244	$162,545	$347,789
Transportation	$390,000	$195,000	$10,000	$205,000
Training	$10,000	$5,000	$17,000	$22,000
Surveillance	$270,000	$135,000	$53,000	$188,000
Administration	$20,000	$10,000	$145,000	$155,000
Education	$200,000	$100,000	$100,000	$200,000
Supervision	$121,500	$60,500	$60,000	$120,500
Evaluation	$20,000	$10,000	$10,000	$20,000
Subtotal	$2,212,389	$1,078,344	$1,134,045	$2,212,389
PAHO 13% overhead	$287,611	$140,184	$147,427	$287,611
TOTAL	$2,500,000	$1,218,528	$1,281,472	$2,500,000

Attachment No. 3
REPROGRAMMING OF EPI BUDGET
524-321

BUDGET CATEGORY	TOTAL LOP	THIS CHANGE	REVISED TOTAL
Vaccines	$760,600	$148,500	$909,100
Research	$50,000	($5,000)	$45,000
Cold Chain	$370,289	($22,500)	$347,789
Transportation	$390,000	($185,000)	$205,000
Training	$10,000	$12,000	$22,000
Surveillance	$270,000	($82,000)	$188,000
Administration	$20,000	$135,000	$155,000
Education	$200,000	$0	$200,000
Supervision	$121,500	($1,000)	$120,500
Evaluation	$20,000	$0	$20,000
Subtotal	$2,212,389	$0	$2,212,389
PAHO 13% overhead	$287,611	$0	$287,611
TOTAL	$2,500,000	$0	$2,500,000

PROSPECTIVE VACCINE SUPPLIERS 92

SUPPLIERS	POLIO	DPT/TT/DT	MEASLES	BCG
CONPHARMA 1)Institute of Immunology, Zagreb, Yugoslavia		X	X	
2)Human Institute for Serobacteriological Production & Research Budapest, Hungary	X	X		
3)Research Institute for Infectious & Parasitic Diseases, Sofia, Bulgaria				X
CONNAUGHT LABORATORIES LTD. Ontario, Canada	X	X	X	X
EVANS MEDICAL/GLAXO GROUP INTL. London, U.K.			X	X
HOECHST (BEHRINGWERKE AG) Frankfurt, West Germany	X	X		
INSTITUT MERIEUX INTL. Lyon, France	X	X	X	
INSTITUT PASTEUR PRODUCTION [illegible]		X		X
INSTITUTE OF IMMUNOLOGY & VIROLOGY (TORLAK) Belgrade, Yugoslavia	X	X		
JAPAN BCG LABORATORY Tokyo, Japan				X
MERCK, SHARP & DOHME INTL. [illegible], New Jersey, USA			X	
SMITHKLINE BIOLOGICALS Rixensart, Belgium	X		X	
SCLAVO, INC. Siena, Italy	X	X	X	
WELLCOME BIOTECHNOLOGY LTD. Kent, England		X		
TANABE SEIYAKU CO. Osaka, Japan			X	
FUNDACAO ATAULPHO PAIVA Rio de Janeiro, Brazil				X