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PROJECT CONCERN INTERNATIONAL

Child Survival VII:
Nicaragua Urban Child Survival Project
Managua: Barrio of Acahualinca

September 1, 1991 - August 31, 1994

FIRST ANNUAL REPORT
SUBMITTED TO
THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
BUREAU FOR FOOD AND HUMANITARIAN ASSISTANCE
OFFICE OF PRIVATE AND VOLUNTARY COOPERATION

October 15, 1992

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PROJECT CONCERN INTERNATIONAL
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Managua: Barrio of Acahualinca
September 1, 1991 - August 30, 1994

First Annual Report
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1. RESULTS IN YEAR ONE

1.1 Major Results

Project Concern International's (PCI's) Child Survival VII project in Managua, Nicaragua, initiated activities in September of 1991. The major results of the project over the past twelve months can be organized into three areas: 1) administrative activities required to establish PCI's presence in Nicaragua; 2) community mobilization and networking; 3) completion of the baseline survey and Detailed Implementation Plan; and 4) training and service delivery for specific Child Survival interventions.

a) Administrative Activities

Project staff were hired and office space secured in October, 1991, although the project director, Dr. Leonel Arguello, began activities the previous month. Dr. Arguello initiated the lengthy legalization process in September, 1991, and expects to have secured legal status by the end of this year.

b) Community Mobilization and Networking

This Child Survival project is located in the urban barrio of Acahualinca, located in the northwestern portion of Managua bordering the city's dump and the city's sewage drain into Lake Managua. PCI began the project by identifying and communicating with the local leaders and other organizations in the community. Although several local and international organizations are presently providing Acahualinca with badly needed services, they have not had a forum to share project information, lessons learned, and together discuss the needs of the community.

In response to this need, Dr. Arguello in September, 1991, initiated the formation of the Comité de Desarollo Socio-ambiental de Acahualinca (the Committee for Social and Environmental Development of Acahualinca). Membership is composed of staff from six NGOs (including PCI), representatives from the Ministry of Health (MOH), and community leaders. The committee meets each month to discuss individual activities, identify constraints and possible solutions, share lessons learned, and

identify priorities. The meetings are held outside of Acahualinca in the offices of FUNCOD. The committee will move its meeting site to Acahualinca when the new health center is completed (in early 1993).

c) Completion of Baseline Survey and DIP

The baseline survey was finished in March, 1992, and included feedback sessions with the local community, MOH, USAID Mission, and partner NGOs. The entire process took about 20 days to complete. Throughout the past year, PCI has taken advantage of opportunities to network with other NGOs in the area and share experiences and information about specific projects. The result has been excellent relationship development with: Profamilia, CARE, Feed The Children, Young Christians Association (ACJ), Dos Generaciones, CISAS, Movimiento Comunal, CEPS, Podemos (local women's group), and Local Evangelical Organizations.

The DIP was submitted to A.I.D. in May, 1992; it was rated as "fair". Although the annual report is generally the vehicle for responding to the technical reviews of the Detailed Implementation Plan, because these reviews were not made available to PCI until mid-September, staff plan to submit a separate response to the review by November 15, 1992. PCI/Nicaragua plans to revise relevant sections in order to maintain the coherence of the DIP as a dynamic management tool and will submit the revised DIP with the response to the review.

Due to fiscal constraints (see 2.1) greater efficiency has been sought, resulting in the utilization of electronic mail, the sharing of support staff with other organizations in the office building, the sharing of office equipment, and the borrowed use of the Project Director's personal vehicle.

d) Training and Service Delivery of Child Survival Interventions

Recruitment and Training of Brigadistas

Plans call for the training of 30 volunteer community health workers called "brigadistas". PCI and the residents of Acahualinca identified 25 candidates for brigadista training in February, 1992, who have begun to receive training and are providing services to the community. At least five more brigadistas will be incorporated into the project during the next two years. 22 of the 25 active brigadistas are new community health workers with little experience providing primary health care/education. The remaining three are experienced health workers.

Training for the brigadistas began in May of 1992. Immunization training was selected as the initial course after the baseline survey identified low coverage rates for children 12-23 months old. Only 59% of the children aged 12-23 months with vaccination cards revealed complete immunization schedules. 23 brigadistas and 60

medical students attended the first training session on immunizations. This and all other courses are conducted by Armedia Rocha, PCI's Health Educator, with guidance from the project director and assistance from local professionals.

To date, PCI has provided the brigadistas with training courses of at least four hours in the following areas: hygiene, family planning, the control of diarrheal disease, breastfeeding, drug addiction (requested by the brigadistas), in-service training in immunizations, and prevention and control of cholera. PCI will provide in-service training to all 25 brigadistas (30 when established) four per year for immunizations, and every year (more often if required) for the other interventions.

Because many mothers of infants and children under two years of age care for their child at home, PCI is training the brigadistas to provide house-to-house health education services. These one-on-one meetings with mothers are an effective means to deliver health messages and achieve outreach to the majority of families with children under two years of age.

A crucial element for the project's sustainability is to incorporate the activities of the brigadistas into the objectives and operation of the Miguel Aguilar health center, the local MOH center, named after a local hero. This process has been initiated through various meetings with MOH officials and through inclusion of MOH health center staff in the brigadistas' training program. PCI is also providing MOH health center staff with administrative training to improve its HIS and management skills. The modified DIP will expand upon the methods for integrating the activities of the brigadistas with the health center.

Community Campaigns

A national immunization campaign was held on May 17, 1992, in Acahualinca. 25 brigadistas and the 60 medical students (trained by PCI for the campaign) provided community level promotion for the campaign. A total of 537 vaccine doses were given during the one-day campaign.

PCI developed a "mini-campaign" strategy to improve coverage rates. This strategy involves dividing the community into smaller administrative units where all brigadistas provide intensive immunization outreach. One mini-campaign was held in the Rafael Rios sector of Acahualinca on June 24, 1992. 98 vaccine doses were administered during the one-day mini-campaign. A separate mini-campaign was held in the Alemania Democratica sector of Acahualinca on August 14, 1992. 120 doses were given on that day.

On May 24, 1992, PCI and 13 brigadistas conducted a community campaign to improve hygiene education and practices. The hygiene campaign provided house-to-house sanitation education as well as an opportunity for families to dispose

of their garbage. PCI coordinated with CARE to provide trucks to haul away the garbage collected during this event.

MOH Training Activities

The two MOH nurses that manage the Acahualinca health center also attend the brigadista training courses. Occasionally the two doctors assigned to the health center and other MOH staff attend as well. Staff members who attend receive the same training as the brigadistas. This provides a forum for the brigadistas and MOH staff to gain appreciation for the roles of each and begin to establish a working relationship.

PCI has provided other courses to MOH medical professionals at the health center. For example, starting in May of 1992, PCI sponsored (at no cost to the project) two doctors, one nurse, and two brigadistas at a technical course in family planning methods and techniques including surgical sterilization. By enrolling the individuals through PCI, a course fee was avoided. PCI hopes to repeat this process in 1993.

The Child-to-Child Program

The baseline survey, conducted in March of 1992, revealed that the majority of children under two years are cared for either by the mother at home, or by older brothers and sisters. PCI has prioritized the delivery of health messages to the mother through the house-to-house approach described, and to these older siblings through the establishment of the Child-to-Child health education program in coordination with the local elementary school. Meetings with the school faculty were held before the survey to explore their interest in participating in the project, and their perceived needs for health education in their school. The baseline study verified the need for such a program and the activities were initiated soon afterwards.

Since April, 1992, PCI has provided 23 school children and 2 teachers with health education designed to increase their knowledge of child survival interventions. The children and the teachers replicated the simple games, art and theater activities in their respective classrooms, exposing all 800 students to the health messages. Initially the training curriculum included hygiene, safety and other topics of the participants' choice as well as many of the Facts for Life (UNICEF) messages.

Another school program (an extension of the Child-to-Child program) includes primary health care education for 23 teachers who are respected in the community as sources of information. Initial training sessions included topics such as how to teach children about health, what makes a healthy classroom, and how to use participative training methods. The second year of the project will integrate the appropriate Facts for Life messages into the training curriculum for the teachers as well as their students.

1.2 Changes in Approach to Individuals at High Risk

To date the project has effectively used house-to-house visits and child-to-child education approaches to target those at highest risk, and plans to continue this strategy. The modified DIP will detail the specific strategies employed to target these high risk groups.

1.3 Staffing

PCI/Nicaragua is comprised of 4 employees. An organizational chart and the C.V.s for the 3 technical staff are included in the appendices. Support staff are shared between PCI and other office building residents; they include one receptionist and 1 secretary both at 25% of their time.

1.4 Continuing Education for the Staff of the Project

The PCI Project Director, Dr. Arguello, participated in the American Public Health Association's Annual Meeting in Atlanta, Georgia in November of 1991. In February, 1992, he participated in a training in Guatemala on the baseline survey methodology for USAID-funded PVO Child Survival projects developed by the PVO Child Survival Support Program (CSSP) at Johns Hopkins University.

The PCI Health Educator, Armedia Rocha, participated in a course on techniques of popular education in order to develop PCI's Child-to-Child Program. The course was held in April of 1992 in Managua, Nicaragua by CISAS.

All of the staff attended computer courses in Word Perfect, Lotus 123 and EpiInfo in January, 1992, offered by Ovidio Ramirez from the National University of Engineering (UNI) in Nicaragua.

The Health Educator, Ms. Rocha, and the Accountant, Leonardo Reyes, continue to participate in English language courses. These have run from December 1991 to the present and are held at the Central America University (UCA) in Managua.

1.5 Technical Support

In September, 1991, René Salgado, from PCI headquarters, provided technical assistance in the initial design of the project activities and modifications necessitated after the baseline survey in March, 1992.

PCI headquarters assisted in the establishment of the computer system and the continued training of PCI/Nicaragua staff in computer usage in February, 1992.

In February, 1992, Marcello Castrillo from the Johns Hopkins University PVO Child Survival Support Program provided training in the survey methodology required to be used for the baseline survey.

In May, 1992, René Salgado, from PCI headquarters, provided technical support in the development of the DIP. PCI headquarters provided the project with graphic materials for training and promotional activities in June, 1992.

Since May, 1992, PROFAMILIA has provided material and technical support for the family planning components of the project.

In June, 1992, Richard Covington, from PCI headquarters, provided technical assistance in fiscal management.

1.6 Community Participation

There are three active community groups that interact with PCI in the implementation of the USAID-funded child survival project. All three have met with and without PCI in the last 90 days.

1) *Comité de Desarollo Socio-ambiental de Acahualinca.* The volunteer committee meets every month (with PCI representation) to explore the current needs of the community, what each organization is able to do to meet those needs, and how to coordinate activities to maximize the impact of each group's effort.

2) *Comité de Construcción del Centro de Salud.* This local volunteer committee of 6 community members has been working for the past 5 years to develop a new community health center in Acahualinca for the MOH to use. The committee meets every month to explore ways to generate resources for the new center. Today the center is 80% completed. PCI regularly (monthly) meets with the committee who strongly support the integration of PCI's primary health care activities into the MOH's operation of the new health center.

3) *PODEMOS.* This local women's organization has about 25 members who meet every week to learn vocational skills to increase their income generation capacity and to discuss women's issues such as women's rights, and other topics of interest. PCI meets with this group every two or three months to discuss each group's activities, interests and ways to collaborate to improve the community. PCI will incorporate this organization in the family planning and Tetanus Toxoid immunization activities of the CS project.

1.7 Linkages to Other Health and Development Activities

The project is Project Concern's first activity undertaken in Nicaragua. The linkages have occurred between PCI and the MOH, and between PCI and other NGOs. PCI has worked with the MOH since the initial design of the project's proposal in 1990. The MOH invited PCI to work in the community of Acahualinca. The project is working to coordinate with the health activities of the MOH health center in La Morazan (which supervises the Acahualinca health center), and the health center in Acahualinca. PCI follows the national MOH guidelines in all interventions, and incorporates MOH training, observation and participation whenever possible.

The MOH health center in Acahualinca is integrated into the project's activities as both a referral site, a collection point for the HIS, and as a point of information dissemination. By training the center's staff, PCI is able to provide child survival messages through both the brigadistas and the government's health care system. As part of this integration, PCI provides support and promotion for national health campaigns specifically immunizations and cholera.

As previously mentioned, the project has cooperated with a variety of local NGOs. The subsequent list of NGOs all participate either in the Social-Environmental Committee, project training activities, or share technical materials with PCI. Each organizations' participation is unique, but all provide important support at the community or NGO level for PCI's project. The following are the major NGOs with whom PCI works: Profamilia, CARE, Feed the Children, ACJ (Christian Youth Association), Two generations, CISAS, CEPS, Movimiento Comunal Nicaraguense, Podemos, and local evangelical organizations.

2. CONSTRAINTS, UNEXPECTED BENEFITS AND LESSONS LEARNED

2.1 Constraints

The constraints encountered during the first year of the project can be separated into financial constraints and logistical constraints. Both are detailed below along with strategies aimed at overcoming the challenges.

a) Financial Constraints

Project Concern's child survival project in Nicaragua was originally approved by USAID in Washington and the USAID Mission in Nicaragua using a Nicaraguan NGO (CEPS) as the local counterpart to Project Concern. In the originally approved proposal, CEPS would provide a large portion of project costs from their funds. 15

days prior to the project's implementation, Project Concern was notified that it would not be able to work with CEPS as its local counterpart.

After several high level meetings with other NGOs, it became apparent that CEPS was the only organization in Nicaragua with the necessary expertise in health to assist in the implementation of this child survival project. There were no alternative counterparts. Consequently, PCI dissolved the relationship with CEPS. Without the counterpart funds, Project Concern is forced to implement the project with more than the required 25% cash match of AID funds.

In order to remedy this situation, Project Concern is exploring opportunities to expand its funding base for health activities in Nicaragua, and is in constant contact with the USAID mission to explore health activities where PCI's expertise can be used. If these opportunities are not identified to help support the project's costs, PCI will have to evaluate whether it must omit or curtail some of the planned activities, or reduce the time frame for the project. The most likely possibility is the postponement of certain activities until the third year of the project; this information will be included in the DIP modification.

b) Logistical Constraints

After lengthy communication between PCI and the Nicaraguan embassy in the United States, PCI has become legalized in Nicaragua. Though this has not delayed project implementation, it has required staff time to follow-up with correspondence, and to address the importation tariff tied to the import of needed equipment and supplies (eg. vehicle).

The political changes Nicaragua has undergone in the past year have caused frequent modifications of MOH staff and the organization of the Ministry of Health. With the ministry in the process of reorganization, it has delayed PCI's ability to implement certain activities requiring MOH support. For example, the MOH health center has seen three directors in one year. The lack of consistency in the MOH makes coordination and integration of activities challenging.

The health center in Acahualinca is currently forced to send its health data to a central health center in La Morazan. La Morazan does not regularly return the data, and does not make the results of data analysis regularly available to the health center staff, nor PCI. PCI is working to improve inter-MOH communication as well as communication between the La Morazan MOH staff and PCI. In the mean time, PCI is designing a complimentary HIS that can fit the requirements of the project, and should be operational by March of 1993.

2.2 Unexpected Benefits

The project in Acahualinca has been very successful in incorporating community support in project activities. Since its inception in 1991, the project has exceeded initial expectations for the Child-to-Child program; establishing linkages with local NGOs; and in gaining local contributions to the project. We have been gratified by the community's desire to supplement child survival messages with other health information, and the zero turnover of brigadistas.

Initially the Child-to-Child program was a small component, in which PCI expected to provide health education messages in the local school on a limited basis using art, theater, and other mediums. The initial success of these activities has allowed PCI to more fully develop a program that provides 23 children and their teachers with health education, and enables them, in turn, to share these child survival messages with their classmates and families. The program has excellent potential for expansion to other schools beyond Acahualinca.

As conceived, this Child Survival VII project was a relatively modest program to provide badly needed child survival interventions in one very poor urban community. Although the project is only a year old, PCI is pleased to find itself looked to for leadership in primary health care by both community residents and local NGOs. PCI/Nicaragua is now sought out for technical advice by the MOH as well as PVOs. An example of this leadership is PCI's initiative in forming the Committee de Desarollo Socio-ambiental de Acahualinca which provides a venue for the community residents and local NGOs to discuss activities, priorities, and coordination of efforts to improve the lives of Acahualinca's residents.

The unexpected financial constraints have required that PCI develop and employ low-cost strategies not originally considered for project implementation. For example, PCI/Nicaragua "pioneered" the use of electronic mail within PCI, an innovation which saves both the time and cost of ordinary mail and courier service, as well as reducing the number of fax transmissions and telephone calls. As a result, many of PCI's other projects now take advantage of E-mail. The unexpected support of other groups (such as the NGOs in the office building where PCI is located) has resulted in assistance with support staff and the shared use of office equipment.

The community's enthusiastic response to the project has been especially pleasing. The community has requested PCI to provide health education in the areas of family planning, drug addiction, hygiene, and sanitation. PCI has been able to coordinate with local NGOs and professionals to provide the brigadistas, teachers, and students with information about these widely requested subjects.

With few experienced brigadistas in the community-- 22 of the 25 brigadistas are new-- PCI expected some turnover from these community health volunteers. To date not a single individual has left the project.

2.3 Institutionalization of Lessons Learned

One of the most important lessons learned to date has been the importance of confirming all counterpart NGO **and donor** relationships and contributions in writing before the project agreement is finalized.

Community organization and networking is a strategy PCI uses worldwide, and one that has been particularly successful in Nicaragua. It has enabled PCI to rapidly mobilize community resources, with the result that PCI has been able to implement child survival interventions and disseminate health messages quickly and effectively. PCI has been able to respond immediately to the community's requests for health education. PCI has also endeavored to share information and materials with local organizations to prevent duplication of efforts.

PCI is firmly committed to strengthening the ministries of health in the countries where it works. This strategy is particularly relevant to Nicaragua, where the government, although stabilizing, is still undergoing transition. PCI's role is to provide continuity and support to the MOH -- particularly at the level of service provision -- while developing complimentary grass-roots capacity. This relieves the burden on strained or nascent MOH systems and allows community resources to be used more efficiently. While this approach often means taking two steps forward and one step back, PCI believes that failure to work closely with the MOH results in programs that are regionalized at best, and are probably unsustainable in the long term.

PCI is also committed to employing qualified host country national staff whenever possible. In Nicaragua, the project director is a highly qualified Nicaraguan public health professional; he has contributed to the ability of the program to mobilize the community and implement activities quickly, and will contribute to the long-term sustainability of the program. This offsets the increased administrative support required from headquarters for the project to comply with the provisions of the USAID grant.

The PCI World Conference, held in June, 1992, is a forum which allows headquarters and field staff from all PCI projects to share ideas, materials and methodologies; and to set organizational goals. This year headquarters and field staff developed a draft of an organizational policy on HIV/AIDS prevention; the draft will be presented to the Board of Directors in its general meeting in December. The World Conference is held every two years, and this year it enabled Dr. Arguello, as a new field

employee of Project Concern, to gain a wider understanding of PCI operations, and to establish personal and professional relationships with headquarters and field staff.

3. CHANGES MADE IN PROJECT DESIGN

3.1 Change in Perceived Health Needs

PCI introduced additional activities in family planning and sanitation in response to perceived health needs of the community, which were verified by specific requests from the community as well as the baseline study. For example, the baseline survey revealed that over 50% of the women of childbearing age wished to use some modern method of contraception, demonstrating the need for information about family planning methodology and how to obtain services. Changes in these education activities will be explained in more detail in the revised DIP.

3.2 Change in Project Objectives

Changes in project objectives are minor and will be reported in the modifications to the DIP by November 15, 1992.

3.3 Change in Planned Interventions

PCI will integrate family planning and environmental health education components into the program at little or no cost to the project budget; these will be explained in detail in the revised DIP.

3.4 Change in Potential and Priority Beneficiaries

The revised DIP will include the most recent population figures. The population of Acahualinca is growing due to migration to Managua. The beneficiary population grew approximately 3.3% over the past year. PCI will continue to prioritize interventions for children ages 0-24 months and women of reproductive age.

4. PROGRESS IN HEALTH INFORMATION DATA COLLECTION

4.1 Characteristics of the Health Information System

4.1.1 The Acahualinca health center maintains individual records in a manual system for each person who visits the clinic. The information includes personal and family data for both preventive and curative care.

4.1.2 The health center system is able to store and retrieve information for at-risk women and children only if they have visited the clinic. PCI assisted the local MOH staff to identify the limitations of the existing system, which include the lack of training in

how to fill out the monthly report forms submitted to the supervisory center in La Morazan; and the inability to analyze data for use at the local level (data are currently sent to La Morazan, which does not provide feedback to Acahualinca). PCI has completed the evaluation of the existing system and has scheduled working sessions with the MOH to address the deficiencies. PCI will incorporate referral data from the brigadistas into the health center system, and will assist the health center staff to make use of the data it collects locally. This should also improve the quality of information collected.

4.1.3 PCI monitors the monthly reports sent by the Acahualinca center to its supervisory center. This information includes: growth monitoring attendance including weight and height, immunizations, prenatal care, diarrheal disease (number of cases, degree of dehydration, use of ORT and intravenous treatment), and information about the number of visits of each age group. PCI initiated its work with the health center in May of 1992, and has assisted health center staff to reorganize individual data for easier access to growth monitoring and immunization information.

4.1.4 The brigadistas each maintain a separate journal of activities, which includes all referrals to the health center. PCI reviewed the journals in August, 1992 and will begin monthly reviews in December, 1992. Training for the brigadistas has focussed on how to use the journals to track important health information. Brigadistas are asked to record the names, ages, and gender of each household member, number of household visits, information dispensed, and referral data (including number of and reasons for referrals, and follow-up.) The brigadistas also record information about immunization campaigns and other community-wide activities.

Project managers are working with the brigadistas to improve consistency of data; by December, 1992, we expect to begin regular analysis of reliable aggregate data for use in project management. The brigadistas have expressed considerable interest in using the health information system and we have incorporated their ideas and suggestions for improvement in data collection and use.

4.2 Special Capacities of the Health Information System

4.2.1 The project monitors information about immunization campaigns including the number of children immunized and the location. The project also maintains information about the women who use the health center for prenatal care. PCI plans to track both the number of clinic referrals and the number of actual visits to determine the effectiveness of brigadista referrals.

4.2.2 PCI monitors information about the number of brigadistas, children, teachers, and MOH staff active in its child survival activities. Although there has been turnover among MOH staff, the community health volunteers all remain active.

4.2.3 The MOH currently investigates cases of acute paralysis in children less than 15 years old. Although PCI does not carry out active case-finding, the brigadistas, through their house-to-house outreach, could identify and refer these cases to the MOH for investigation. Active case detection would be better facilitated once the health center HIS is able to integrate brigadista referral information.

4.2.4 PCI/Nicaragua monitors pre-service, in-service and continuing education training of community health workers, MOH staff, as well as students and teachers in the Child-to-Child Program. The data collected include: dates, number of attenders, duration of course, timetables, and topics covered. This information is collected by PCI's Health Educator and reported to PCI headquarters monthly. To date PCI has provided over 73 hours of pre-service and in-service training to the 25 brigadistas. PCI has provided 85 hours of in-service training for the health center staff, and 38 hours of training for the students and teachers.

4.2.5 The most difficult information to obtain to date has been local level health statistics for prior years. PCI has made a concentrated effort to obtain health data on the community from the MOH. Because the information was sent from the Acahualinca health center to the La Morazan health center, and the tabulated and analyzed information never returned (or the analysis never performed), PCI has had to review and compile each of the past monthly reports (when available) to make comparisons and develop strategies.

4.3 Management of the Health Information System

4.3.1 Since October, 1991, the proportion of expenditures for the HIS has been, 7.5%, or $6,637. PCI has purchased hard and software for use in the HIS; the computer and laser printer are used for other project activities including report writing, development of training materials, educational materials, and financial management. Staff time for HIS activities is conservatively estimated at 250 man hours at $5.15 per hour for a total of $1,287.50. Other costs include transportation and support which are estimated at $750.00.

4.3.2 Indicators that are currently reviewed each month include: number of cases of vaccine preventable disease, number of cases of diarrhea, number of cases of cholera, and number and type of training activities. Strategies for project activities are dynamic and are based on these indicators and the information obtained from the MOH. As an obvious example, training in pneumonia control was postponed when an outbreak of cholera required that project efforts be directed towards hygiene and CDD activities. The HIS with revised indicators will be finished by March of 1993. PCI prioritized community participation during the first year, with the HIS being a second year priority.

4.3.3 PCI's system for sharing health information with others is through regularly scheduled meetings. The Brigadistas, teachers and health center staff regularly share what new information they have obtained with PCI who provides feedback of data it has compiled. This type of exchange has taken place at every meeting with these groups since May, 1992. One example is the baseline survey statistics that have been shared with all of the groups mentioned below through a pattern of formal meetings.

PCI holds meetings with the brigadistas every 15 days to review the health information collected and the prioritization of activities. PCI holds meetings with the teachers involved in the Child-to-Child Program and other activities every month to discuss current activities and the information available from the other project components. Every week PCI staff hold informal meetings with the health center director to discuss new information gathered from other project components as well as from the health center. Other health center staff are often present at these meetings. Every month PCI meets with both the health center construction and the socio-environmental committees to share information and discuss activities.

4.3.4 The information used for project management (other than the baseline) is collected by the brigadistas, the teachers, the health center staff, and occasionally by medical students (during the first immunization campaign). PCI's Project Director and Health Educator compile the information obtained from the teachers and brigadistas. The MOH health center staff compile the information from the Acahualinca health center.

Currently, PCI's Project Director and Health Educator analyze the information from the teachers and brigadistas. The La Morazan health center is responsible for analyzing the data compiled by the Acahualinca health center. Unfortunately, La Morazan has not shared (or performed) their analysis of health data and PCI is assisting the Acahualinca health center staff in learning how to analyze their data and put it to use. At the same time, PCI helps perform data analysis on the health center's information until the local health center staff are able to perform the work themselves. In the case of PCI, the Health Educator and the Project Director are responsible for monitoring and maintaining the health information system.

4.3.5 PCI has provided its staff with computer classes to maximize their efficiency and effectiveness working with the HIS as well as other project components. The Project Director has provided PCI's other staff with training in: MOH protocol, data management/analysis, use of graphics/charts, development of educational materials, and health indicators as management tools. PCI has provided the brigadistas and health center staff with training and assistance in data collection and compilation. In the future, assistance will be provided to the health center staff in data analysis.

5. SUSTAINABILITY

5.1 Recurrent Costs

5.1.1 The specific recurrent costs listed below are organized by project component with the estimated annual costs. Since the majority of the individuals performing project activities are volunteers, the primary recurrent costs are for supplies. For the Acahualinca health center, staff will require the equipment to undertake data collection, compilation, analysis and storage to continue the quality of work being initiated by PCI.

A computer and the necessary office supplies are estimated to cost $4,000 ($500/yr for supplies, one time cost of $3,500 for the computer). The health center staff will need to continue to perform periodic (once every few years) surveys of health status as well as community knowledge, attitudes and practices. These surveys will cost approximately $3,500 each. Health center staff will require in-service training in survey methodology which PCI will provide in year 3. The staff will also require periodic training due to high turnover and to reinforce health skills. This process is estimated to cost $850 per year. The center staff will also require supervision. There is no estimate for this cost.

The brigadistas in other parts of Nicaragua originally received support and training from the previous MOH. Under the new government, the MOH is not providing them with supervision, training, nor supplies. For the brigadistas to continue to provide services to the community they will require the following:

HIS supplies	$600/yr
Health Kits ($60 each x 30 brigadistas)	$1,800
Educational Materials	$1,800
In-service (pre-service) training	$1,000/yr
Supervision (MOH)	$1,200/yr

The Child-to-Child Program will require materials to continue beyond the scope of PCI's project. These estimates for materials are listed below:

Supplies (paper, chalk, etc)	$500/yr
Educational Materials	$1,000
Training	$800/yr
Supervision (per teacher)	$1,200/yr

The education provided to the teachers beyond the Child- to-Child program will require continued training and material support. Training costs are estimated at $800 per year, and supplies at $600/yr. Supervision can be handled by the same individual

as the Child-to-Child program. The total one time costs of continuing the project is $8,100. The annual recurrent costs are $8,050.

5.1.2 The costs associated with the MOH health center and the brigadistas should be covered by the MOH with possible support from the community. These costs include $7,100 of one-time expenses, and $4,150 of annual recurrent expenses. The costs associated with the Child-to-Child program and the teacher education portion will either be covered by the community, or by other local groups. PCI is exploring the possibility of establishing an adopt-a-school type program to generate resources from abroad to cover these costs. These costs include $1,000 of one-time expenses, and $3,900 of annual recurrent expenses.

5.2 Strategies for Post-project Sustainability

5.2.1 Project Concern is committed to developing primary health care programs that are appropriate to the needs of the communities with whom we work. In Acahualinca, PCI has received requests from community members for specific activities and interventions to meet their felt needs. This flexibility in PCI's approach is vital to the project's sustainability and the community's continued support. In order to increase sustainability of its projects, PCI focusses on transferring skills to local MOH staff and community members to be able to undertake project activities once PCI leaves. This is not a unique concept, but the brigadistas and teachers involved in the project understand their role in the project's sustainability and have expressed their support.

For the brigadistas associated with PCI's project, the motivation for continuation of activities comes from a variety of non-financial incentives including progressive in-service training, acknowledgement by the community of their contribution, increased skills, and the use of appropriate technology. Brigadistas have expressed their satisfaction of volunteering support for community programs. They enjoy the opportunity to improve their own skills which may lead to paying positions in the MOH or other agencies.

The children involved in PCI's Child-to-Child program have incentives similar to those of the brigadistas with some additional motivating factors. One example is the opportunity to visit others schools to expand the program and share experiences with other students their own age. The students receive respect from their peers, parents and teachers for their contribution to the community. PCI employs a strategy of using fourth and fifth grade students in the program because they will attend the school for at least two years. This solidifies the program's presence in the community before students move on to the junior high school outside of Acahualinca.

The sustainability of the MOH health center activities will be enhanced when the community completes construction of the new health center. PCI will take advantage

of the process of change from one center to another by using this time to improve the MOH's management and administrative functions in the Acahualinca center. An important component of the sustainability strategy is to link the new health center with the other primary health care activities in the community. The goal is to keep the community involved in the health center's management and decision making process even as the center's staff changes. An end result of this process is the development of sustainable community participation that combines the MOH's resources and the needs of the community.

5.2.2 The project's activities to cut costs have focussed on administrative and supervisory expenses. There have been no significant reductions in recurrent costs as training and supply expenses have been kept to a minimum from the beginning.

5.3 Cost Recovery

5.3.1 The project has no cost recovery mechanisms since the expenses for medical services are assumed by the government. The brigadistas are volunteers and receive no financial compensation and have mentioned to PCI that they do not wish to charge for their services to generate personal income. Fees-for-services will be explored to sustain project supply costs.

5.3.2 The one cost recovery activities to be explored in the area is a revolving pharmaceutical fund to be managed by the community, but to be located within the MOH health center building. This fund may create a financial problem for residents over 5 years of age who must pay for their medicine according to a sliding scale. This in turn may create inequities for drug availability. The income from the fund will directly support PCI's activities with the brigadistas and the community.

5.3.3 There have been no training activities in cost recovery mechanisms and price setting.

6. PROJECT EXPENDITURES AND JUSTIFICATION FOR BUDGET CHANGES

6.1 Pipeline Analysis

The pipeline spreadsheet will be sent under a separate cover by October 15, 1992.

6.2 Justification of Budget Changes

Any budget modifications will be finalized for the revised DIP to be submitted November 15, 1992. Justification of any changes will be included with the DIP.

7. 1992/1993 WORK SCHEDULE AND BUDGET

Please see attached appendices

PCI/Nicaragua

Annual Report Appendices

- 1992-1993 Operational Budget
- 1992-1993 Work Plans
- Organizational Chart
- C.V.s of Technical Staff
- [redacted]

PVO/COUNTRY PROJECT NICARAGUA

PRESUPUESTO 1992/1993
(10/01 /92 to 09 /31 /93)

COST ELEMENTS	AID	PVO	TOTAL
I. PROCUREMENT			
A. Supplies (428+429+965)	10.218,00	6.019,20	16.237,20
B. Equipment(482+995)		2.050,00	2.050,00
C. Services/Consultants			
1. Local		2.000,00	2.000,00
2. Espatriate			
SUB TOTAL I	10.218,00	10.069,20	20.287,20
II EVALUATION		2.400,00	2.400,00
SUB TOTAL II		2.400,00	2.400,00
III INDIRECT COSTS			
HO/HO OVerhead	13.697,04		13.697,04
SUB TOTAL III	13.697,04		13.697,04
IV OTHER PROGRAM COSTS			
A. Personel (list each position & total			
person month separately)	39.393,09	3.501,68	42.894,77
1. Manager	14.059,80	1.586,72	15.646,52
2. Trainner	9.737,00	1.233,56	10.970,56
3. Accountant	5.623,92	659,36	6.283,28
4. Driver	1.968,37	22,04	1.990,41
5. Salario Headquarters	8.004,00		8.004,00
B. Travel/Per Diem	1.490,00	1.749,00	3.239,00
1. In country			
2. International(575+571)	1.490,00	1.749,00	3.239,00
C. Other Direct Costs	14.154,00	12.718,00	26.872,00
(utilities, printing, rent, manin–			
tanance ,etc.)	14.154,00	12.718,00	26.872,00
SUB TOTAL IV	55.037,09	17.968,68	73.005,77
TOTAL FIELD	78.952,14	30.437,88	109.390,02

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PCI/NICARAGUA

1992 - 1993 Work Plans

(Please note that these plans may be modified slightly during the revisions to the 1992-1993 DIP)

PLAN DE TRABAJO ANUAL [ ] TRIMESTRAL [ ] MENSUAL [ ]
PROJECT CONCERN INTERNATIONAL - NICARAGUA
1992 A 1993.

OBJETIVO GENERAL:

OBJETIVOS ESPECIFICOS: Incremento de la cobertura de inmunizados en menores de dos años. CODIGO: A:

RESULTADOS ESPERADOS: cobertura en el menor de 1 año: de 50% en el Ier. año, 80% en el II año y 90% en el III año. Cobertura en el de 2 años: 65% en el Ier. año, 80% en el II año y 90% en el III año.

INDICADORES: *Porciento de niños de 1 y 2 años con cobertura universal (dosis completas para su edad de anti-polio, DPT, antisarampión y BCG). *Incidencia de enfermedades prevenibles por éstas vacunas.

FACTOR EXTERNO: *Insuficiente recursos materiales para lograr las coberturas deseables, ya que el proyecto solo cubre capacitación. * Cambios de política sanitaria. * Modificaciones en la estructura poblacional.

PLANIFICACION DEL SEGUNDO AÑO. OCTUBRE 92 A SEPTIEMBRE 1993		TRIMESTRES			
No.	ACTIVIDADES Y TAREAS	I	II	III	IV
A.	Actividades organizativas:				
A.1	Revisión del PAI y CCD en C/S	X	X		
A.2	Reorganización del PAI y CCD en el C/S por sectores.	X	X		
A.3	Organización de brigadistas por sector.	X			
A.4	Organización del sistema de monitoreo y evaluación.			X	X
A.5	Organización del sistema de referencia y contrareferencia.	X	X		
A.6	Organización del sistema de información del abastecimiento técnico-material.			X	X

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A.7	Organización de la Divulgación	X	X	X	X
A.8	Organización de Jornadas Nacionales	X	X	X	
A.9	Organización de Mini-jornadas	X	X	X	X
A.	Capacitación:				
A.10	Capacitación del personal de salud	X	X		
A.11	Capacitación de profesores		X		
A.12	Capacitación de brigadistas	X	X	X	X
A.13	Capacitación de religiosos	X	X	X	X
A.14	Capacitación de mujeres organizadas.		X		X
A.15	Capacitación del manejo de información			X	X
A.16	Capacitación del sistema de referencia y contrareferencia.	X	X	X	X
A.	Ejecución:				
A.16	Realización de Jornadas Nacionales de vacunación	X	X	X	
A.17	Aplicación del sistema de referencia y contrareferencia.	X	X	X	X
A.18	Divulgación y educación sanitaria.	X	X	X	X
A.19	Realización de mini-jornadas de vacunación.	X	X	X	X
A.20	Utilización del monitoreo y evaluación.		X	X	X

PLAN DE TRABAJO ANUAL [ ] TRIMESTRAL [ ] MENSUAL [ ]
PROJECT CONCERN INTERNATIONAL - NICARAGUA
1992 - 1993

OBJETIVO GENERAL:

OBJETIVO ESPECIFICO: Incremento de la cobertura de atención y control de niños menores de cinco años con enfermedad diarreica aguda. CODIGO: B.

RESULTADOS ESPERADOS: Aumentar el número de niños atendidos en el Ier. año un 20%, en el II año un 30% y en el III año un 40%.

INDICADORES: *Porciento de niños menores de 5 años con cobertura en la URO. *Mortalidad por diarrea.

FACTOR EXTERNO: *Insuficiente recursos materiales para lograr las coberturas deseables, ya que el proyecto solo cubre capacitación. * Cambios de política sanitaria. * Epidemias, como el cólera.

PLANIFICACION ANUAL OCTUBRE 1993 A SEPTIEMBRE 1992		TRIMESTRES			
No.	ACTIVIDADES Y TAREAS	I	II	III	IV
B.	Actividades organizativas:				
B.1	Revisión de la URO en el C/S y casas bases comunitarias.	X			
B.2	Reorganización de la URO y casas bases por sectores.	X	X		
B.3	Organización de brigadistas por sector.	X			
B.4	Organización del sistema de monitoreo y evaluación.		X	X	
B.5	Organización del sistema de referencia y contrareferencia.	X			
B.6	Organización del sistema de información del abastecimiento técnico-material.		X	X	
B.7	Organización de la Divulgación	X	X	X	X

B.8	Organización de Jornadas de Saneamiento Ambiental.	X		X	X
B.	Capacitación:				
B.10	Capacitación del personal de salud		X		X
B.11	Capacitación de profesores			X	
B.12	Capacitación de brigadistas	X		X	
B.13	Capacitación de religiosos	X		X	
B.14	Capacitación de mujeres organizadas.		X		X
B.15	Capacitación de las casas bases	X		X	
B.16	Capacitación del manejo de información		X	X	
B.17	Capacitación del sistema de referencia y contrareferencia.	X	X	X	X
B.	Ejecución:	X	X	X	X
B.18	Realización de Encuesta Higiénica.				X
B.19	Identificación de lugares de mayor riesgo.		X		
B.20	Identificación de niños de mayor riesgo.		X	X	
B.21	Establecimiento de casas bases (TRO)	X			
B.22	Aplicación del sistema de referencia y contrareferencia.	X	X	X	X
B.23	Divulgación y educación sanitaria.	X		X	
B.24	Realización de mini-jornadas de saneamiento ambiental	X		X	
B.25	Utilización del monitoreo y evaluación.			X	X

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PLAN DE TRABAJO ANUAL [ ] TRIMESTRAL [ ] MENSUAL [ ]
PROJECT CONCERN INTERNATIONAL - NICARAGUA
1992 A 1993

OBJETIVO GENERAL:

OBJETIVO ESPECIFICO: Incremento de la cobertura de atención y control de niños menores de cinco años con enfermedad respiratoria aguda. CODIGO: C.

RESULTADOS ESPERADOS: Aumentar el número de niños atendidos en el Ier. año en un 10%, en el II año en un 20% y en el III año un 30%.

INDICADORES: *Porciento de niños menores de 5 años atendidos con enfermedad respiratoria aguda. *Mortalidad por enfermedad respiratoria aguda.

FACTOR EXTERNO: *Insuficiente recursos materiales para lograr las coberturas deseables, ya que el proyecto solo cubre capacitación. * Cambios de política sanitaria. * Incapacidad del sistema de salud de brindar la atención requerida.

PLANIFICACION ANUAL DE OCTUBRE 1992 A SEPTIEMBRE 1993		TRIMESTRES			
No.	ACTIVIDADES Y TAREAS	I	II	III	IV
C.	Actividades organizativas:				
C.1	Revisión de servicios de atención a niños con IRA.		X	X	
C.2	Reorganización de servicios de atención a niños con IRA.		X	X	
C.3	Organización de brigadistas por sector.	X			
C.4	Organización del sistema de monitoreo y evaluación.			X	X
C.5	Organización del sistema de referencia y contrareferencia.		X	X	X
C.6	Organización del sistema de información del abastecimiento técnico-material.			X	X

C.7	Organización de la Divulgación	X	X	X	X
C.	Capacitación:				
C.10	Capacitación del personal de salud		X	X	
C.11	Capacitación de profesores	X			
C.12	Capacitación de brigadistas	X		X	
C.13	Capacitación de religiosos	X		X	
C.14	Capacitación de mujeres organizadas.		X		X
C.16	Capacitación del manejo de información		X	X	
C.17	Capacitación del sistema de referencia y contrareferencia.	X	X	X	X
C.	Ejecución:				
C.20	Identificación de niños de mayor riesgo.	X	X		
C.22	Aplicación del sistema de referencia y contrareferencia.	X	X	X	X
C.23	Divulgación y educación sanitaria.	X		X	
C.25	Utilización del monitoreo y evaluación.			X	X

PLAN DE TRABAJO ANUAL [ ] TRIMESTRAL [ ] MENSUAL [ ]
PROJECT CONCERN INTERNATIONAL - NICARAGUA
1992 A 1993

OBJETIVO GENERAL:

OBJETIVOS ESPECIFICOS: Incrementar la cobertura del CCD en menores de 5 años y mejorar el conocimiento actitud y práctica sobre nutrición y complemento de vitamina "A" en el personal de salud, brigadistas y madres. CODIGO: D:

RESULTADOS ESPERADOS: cobertura en el menor de 1 año: de 30% en el Ier. año, 60% en el II año y 90% en el III año. Cobertura en el de 2 años: 50% en el Ier. año, 60% en el II año y 70% en el III año.

INDICADORES: *Porciento de niños de 1 y 2 años con cumplimiemto de controles normados.

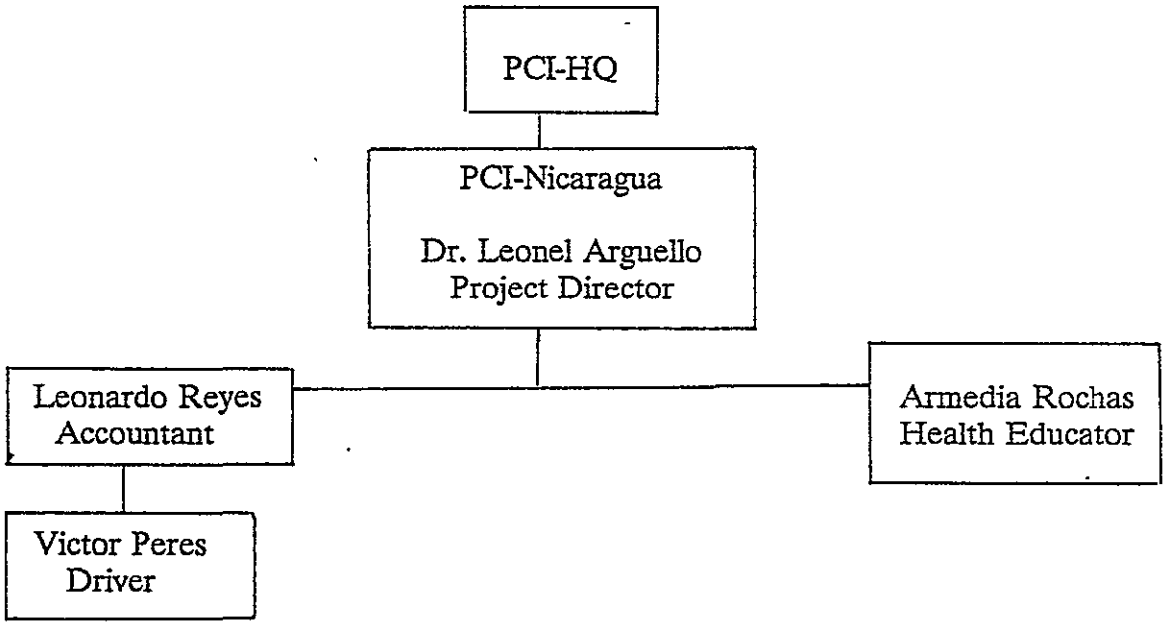
FACTOR EXTERNO: *Insuficiente recursos materiales para lograr que los niños atendidos puedan alcanzar el peso y talla de acuerdo a su edad.

PLANIFICACION ANUAL DE OCTUBRE 1992 A SEPTIEMBRE 1993		TRIMESTRES			
No.	ACTIVIDADES Y TAREAS	I	II	III	IV
D.	Actividades organizativas:				
D.1	Revisión del CCD y CPN en C/S (componente de nutricion)		X	X	
D.2	Reorganización del CCD Y CPN en el C/S por sectores.	X	X		
D.3	Organización de brigadistas por sector.	X			
D.4	Organización del sistema de monitoreo y evaluación.			X	X
D.5	Organización del sistema de referencia y contrareferencia.	X	X		
D.6	Organización del sistema de información del abastecimiento técnico-material.			X	X
D.7	Organización de la Divulgación	X	X	X	X

D.8	Organización de captación de niños desnutridos y en riesgo.		X	X	X
D.9					
D.	Capacitación:				
D.10	Capacitación del personal de salud		X		
D.11	Capacitación de profesores			X	
D.12	Capacitación de brigadistas		X		
D.13	Capacitación de religiosos		X		
D.14	Capacitación de mujeres organizadas.			X	
D.15	Capacitación del manejo de información			X	X
D.16	Capacitación del sistema de referencia y contrareferencia.	X	X	X	X
D.	Ejecución:				
D.16	Realización de censo de niños desnutridos y en riesgo por sector.		X		
D.17	Aplicación del sistema de referencia y contrareferencia.		X	X	X
D.18	Divulgación y educación nutrición		X		X
D.19	Captación de niños desnutridos y en riesgo a través de visitas domiciliar.		X	X	X
D.20	Utilización del monitoreo y evaluación.			X	X

PCI-Nicaragua

Organizational Chart



CURRICULUM VITAE

1- DATOS PERSONALES:

CARLOS LEONEL ARGUELLO YRIGOYEN

Lugar y fecha de nacimiento: [redacted]
Nacionalidad: Nicaraguense
Estado Civil: Casado, 2 hijos.
Profesión : Médico Epidemiologo

Dirección permanente:

[redacted].

Dirección de Trabajo:

-PCI-Nicaragua. Edificio El Carmen.
Apartado Postal 3523, Managua. Teléfonos: 23073;
Fax 505-2-24075.

2- IDIOMAS:

Español e Inglés.

3- ESCOLARIDAD, TITULOS Y CURSOS REALIZADOS:

- Curso sobre Epidemiología en Países Subdesarrollados. Universidad de Minnesota, Estados Unidos. 1987.
- Curso sobre Epidemiología del Cáncer. Universidad de Minnesota, Estados Unidos. 1987.
- Reconocimiento del Grado de Especialista en Epidemiología y equivalencia de Doctor en Ciencias del Centro Nacional de Educación Superior de Nicaragua. Octubre, 1986.
- Certificado de Curso Sub-Regional de Vigilancia Epidemiológica del Programa Ampliado de Inmunizaciones (PAI). Extendido por el Ministerio de Salud de Nicaragua y Organización Panamericana de la Salud (OPS). Octubre de 1985.
- Certificado de Especialista de Primer Grado de Epidemiología. Expedido por el Ministerio de Salud Pública de Cuba. Octubre, 1984.
- Curso de Primer Grado Audio-Visual de Francés. Alianza Francesa en La Habana, Cuba. 1983-1984.

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- Curso de Pedagogía Básica en la Universidad de la Habana, Cuba. 1983-1984.

- Curso de Inglés, Diploma del Ministerio de Educación de la Escuela de John Reed. Cuba. Julio, 1983.

- Certificado de Cumplimiento del Servicio Social Obligatorio en la República de Nicaragua. Ministerio de Salud y Ministerio del Interior. Abril, 1982.

- Título de Médico y Cirujano expedido el 30 de Septiembre de 1982 por la Universidad Nacional Autónoma de México (UNAM).

- Internado Rotatorio Universitario, 1979. Certificado por la Escuela de Medicina de Costa Rica. Costa Rica, Julio de 1982.

- Constancia de Cumplimiento de Servicio Social en el período 1ro de Febrero de 1980 al 31 de Enero de 1981, expedido por la Secretaría de Salubridad y Asistencia de los Estados Unidos Mexicanos. Diciembre, 1981.

- Constancia de realización del Examen Profesional de Médico y Cirujano en la Escuela de Medicina de la Universidad Autónoma de Guadalajara. Expedido por la Universidad Nacional Autónoma de México. Mayo, 1981.

- Diploma de conclusión de estudios del Ciclo Diversificado de Bachillerato. Ministerio de Educación Pública. Nicaragua. Noviembre, 1974.

- Diploma Bachiller en Ciencias y Letras del Colegio La Salle. Nicaragua. Noviembre, 1974.

- Secundaria: Instituto Pedagógico de Varones de Managua, Distrito Nacional. Nicaragua. 1970-1974.

- Primaria: Instituto Pedagógico de Varones de Managua, La Salle. Nicaragua. 1962-1969.

4- <u>EXPERIENCIA LABORAL</u>

1) Director Ejecutivo del Centro de Estudios y Promoción Social (CEPS).1990-1992.

2) Tutor y Asesor de Monografías en las carreras de: Médico y Cirujano, Maestro en Epidemiología y Especializado de Primer Grado en Epidemiología. Nicaragua. 1987-1989.

-32

3) Coordinador del Curso de Epidemiologos de Areas de Salud del Ministerio de Salud de Nicaragua. 1989-1990.

4) Director General de la Dirección General de Higiene y Epidemiología. Nicaragua. 1988-1990.

5) Asesoría en la Evaluación de la Primera Jornada Nacional de Vacunación de la República de Guatemala. Ministerio de Salud Pública y Asistencia Social de la República de Guatemala. 1986.

6) Asesoría al Ministerio de Salud de Guatemala en el Establecimiento del Sistema de Vigilancia Epidemiológica del Ministerio de Salud Pública y Asistencia Social de la República de Guatemala. 1986.

7) Presidente de la Comisión Nacional de Prevención y Control del Síndrome de Inmunodeficiencia Adquirida (SIDA). Nicaragua. 1986-1990.

8) Director Nacional de la Dirección de Epidemiología del Ministerio de Salud de Nicaragua. Nicaragua. 1984-1987.

9) Profesor de la Facultad de Medicina, Departamento de Medicina Preventiva de la Universidad Nacional Autónoma de Nicaragua. Nicaragua. 1985-1991.

10) Editor del Boletín Epidemiológico Nicaraguense. Nicaragua. 1985-1987.

11) Miembro del Consejo Nacional Popular de Salud de Nicaragua. Nicaragua. 1985-1987.

12) Director del Boletín Nicaraguense de Higiene y Epidemiología. Nicaragua. 1984-85.

13) Profesor de la Maestría de Epidemiología en el Centro de Investigaciones y Estudios de la Salud. Nicaragua. 1984-1990.

14) Responsable Nacional del Programa de Inmunizaciones. Ministerio de Salud. Nicaragua.1982.

15) Coordinador del Consejo Regional Popular de Salud de Zelaya Sur. Nicaragua. 1981-1982.

16) Subdirector Regional de Medicina Preventiva en Zelaya Sur. Ministerio de Salud. Nicaragua. 1981-1982.

17) Director del Centro de Salud de Bluefields, Zelaya Sur. Ministerio de Salud. Nicaragua. 1980-81.

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18) Médico de las Empresas Pesqueras, Astilleros y de la población del Bluff, Zelaya Sur. Ministerio de Salud. Nicaragua. 1980.

19) Director de Area de Salud de Kurinwás. Zelaya Sur. Nicaragua. Ministerio de Salud. 1980.

20) Responsable de la Brigada Médica Móvil de Vacunación y Atención Médica en Río Kama, Guapí y Tortuquero, Zelaya Sur. Ministerio de Salud. Nicaragua. 1980.

5- MENCIONES Y ASOCIACIONES PROFESIONALES

- Editor Corresponsal de la Revista Journal Public Health Policy. EEUU. 1992.

- Miembro de Acción Internacional para la Salud de Nicaragua y coordinador del Boletin AIS-Nicaragua, 1991.

- Medalla de Servidores Ejemplares del Pueblo, otorgada por la Federación de Trabajadores de la Salud . Nicaragua. Diciembre, 1989.

- Miembro del jurado calificador de la Maestría de Epidemiología y Administración en Salud del Centro de Investigaciones y Estudios de la salud. Nicaragua. 1986-1989.

- Miembro del Jurado Calificador de las Jornadas Científicas Nacionales de Salud y Coloquio Internacional de Ciencias Médicas. 1985-1988.

- Miembro del Comité Científico de la Unión Internacional Contra la Tuberculosis y Enfermedades Respiratorias. 1988.

- Sociedad Cubana de Higiene y Epidemiología y el Consejo Científico del Ministerio de Salud Pública de Cuba. Cuba. Agosto, 1988.

- Certificado de participación como ponente en las Jornadas Nacionales de la Brigada Médica Cubana en Nicaragua. Nicaragua.1985-1987.

- Certificado de Reconocimiento por participación meritoria en los Cursos de Maestrías en Epidemiología y Administración en Salud ofrecidos en el período 1986 - 1987. Nicaragua. Septiembre, 1987.

- Reconocimiento del Club Rotario de Managua por aportar al desarrollo social del país. Nicaragua. Mayo, 1987.

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- Certificado de participación en la Mesa Redonda "Perfil Epidemiológico general de Nicaragua, principales problemas: Enfermedad Diarreica Aguda, Malaria, Dengue, presentado en la VI Jornada Científica Nacional y IV Coloquio Internacional de ciencias médicas. Ministerio de Salud de Nicaragua. Noviembre, 1986.

- Certificación de participación en el Primer Seminario sobre Salud y Desastres Naturales otorgado por el Ministerio de Salud, Instituto Nicaraguense de Seguros y Reaseguros y la Organización Panamericana de la Salud. Nicaragua. Diciembre, 1986.

- Certificación por participar como Expositor en la VI Jornadas Científicas Regionales de Salud "Dr. Julio César Juárez Flores", expedido por Ministerio de Salud de la Región II, Facultad de Ciencias Médicas de la Universidad Nacional Autónoma de Nicaragua y la Sociedad Médica de León. Nicaragua. Octubre, 1986

- Coordinador del Grupo de apoyo para pacientes crónicos, 1991.

- Certificado de Participación en la Jornada Científica de Atención Primaria y Mención Especial : Encuesta Epidemiológica, su Uso para el Diagnóstico de una Situación Epidémica. Nicaragua. Septiembre, 1985.

- Miembro del Grupo Nacional de Medicina de Nicaragua. Nicaragua. Junio, 1985.

- Miembro del Comité de Redacción (1984) y Director (1984-85) del Boletín Nicaraguense de Higiene y Epidemiología. Nicaragua. 1984-1985.

- Participante de las Sesiones Científicas de la Sociedad Cubana de Higiene y Epidemiología. 1982-1984.

- Reconocimiento por Destacada Labor durante 1er. año Servicio Social en la Región de Zelaya Sur, certificado por la Ministro de Salud. Nicaragua. Junio, 1981.

6- <u>ACTIVIDADES PROFESIONALES: CONGRESOS, SEMINARIOS, PROGRAMAS, NORMAS Y PLANES.</u>

- Congreso Internacional de Salud Pública. APHA. Atlanta, Georgia, EEUU. 1992.

- Taller Regional sobre Inseguridad Alimentaria, Costa Rica, 1991.

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- Autor de las normas de prevención y tratamiento del dengue en Nicaragua. 1985.
- Autor del anteproyecto del plan nacional contra el hábito de fumar en Nicaragua. 1990.

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EXPERIENCIA LABORAL

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* *ANALISTA - DELEGACION DE LA PRESIDENCIA III REGION (1985 - 1988)*

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