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 SUBJECT Em 5253A

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS PART I

1. TRANSACTION CODE
 A - ADD
 C - CHANGE
 D - DELETE

2. DOCUMENT CODE
5240143-5

3. COUNTRY/ACTIVITY
PDAB-144-B1 NICARAGUA OFG

4. DOCUMENT REVISION NUMBER
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5. PROJECT NUMBER (7 digits)
 524-0143

6. BUREAU/OFFICE
 A. SYMBOL: **LA** B. CODE: **05**

7. PROJECT TITLE (Maximum 40 characters)
**Wisconsin6Nicaragua Partners of the America
 East Coast Health Delivery**

8. PROJECT APPROVAL DECISION
 A - APPROVED
 D - DISAPPROVED
 DE - DEAUTHORIZED

9. EST. PERIOD OF IMPLEMENTATION
 YRS. 0 3 MONTHS 9

10. APPROVED BUDGET AID APPROPRIATED FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY 77		H. 2ND FY 78		K. 3RD FY 79	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) PH	539 B	510		55		95		75	
(2)									
(3)									
(4)									
TOTALS				55		95		75	

A. APPROPRIATION	N. 4TH FY		O. 5TH FY		LIFE OF PROJECT		11. PROJECT FUNDING AUTHORIZED ENTER APPROPRIATE CODE(S) 1 - LIFE OF PROJECT 2 - INCREMENTAL LIFE OF PROJECT	A. GRANT	B. LOAN
	C. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN			
(1) PH					225			2	
(2)									
(3)									
(4)									
TOTALS					225				

12. INITIAL PROJECT FUNDING ALLOTMENT REQUESTED (\$000)

A. APPROPRIATION

	B. ALLOTMENT REQUEST NO.	
	C. GRANT	D. LOAN
(1) PH	55	
(2)		
(3)		
(4)		
TOTALS	55	

13. FUNDS RESERVED FOR ALLOTMENT:
 TYPED NAME (Chief, NEUPH... FCO)

SIGNATURE: *Nancy E. Fisher*
 DATE: *9-29-77*

14. SOURCE/ORIGIN OF GOODS AND SERVICES
 000 981 LOCAL OTHER

15. FOR AMENDMENTS, NATURE OF CHANGE PROPOSED

BEST AVAILABLE COPY

FOR PPC/PIAS USE ONLY	16. AUTHORIZING OFFICE SYMBOL	17. ACTION DATE				18. ACTION REFERENCE (Optional)	ACTION REFERENCE DATE			
		MM	DD	YY	MM		DD	YY		

PROJECT AUTHORIZATION AND REQUEST FOR ALLOTMENT OF FUNDS

PART II

Name of Country/Entity : Nicaragua/Wisconsin Partners of the Americas, Inc.
Nicaragua OPG

Name of Project: East Coast Health Delivery

Number of Project: 524-0143

Pursuant to Part I, Chapter 1, Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize a Grant to Nicaragua the "Cooperating Country" of not to exceed 225 thousand United States Dollars (\$225,000) the "Authorized Amount" to help in financing certain foreign exchange and local currency costs of goods and services required for the project as described in the following paragraph. The project consists of an Operational Program Grant to develop in the East Coast of Nicaragua, a regional institutional structure to integrate the existing organizations' delivery of health, family planning, and nutrition services (hereinafter referred to as the "Project").

The entire amount of the A.I.D. financing herein authorized for the Project will be obligated when the Grant Agreement is executed. I approve the total level of A.I.D. appropriated funding planned for this project of not to exceed 225-thousand United States Dollars (\$225,000) which will be Grant funded during the period FY 1977 through FY 1979. I approve further increments during that period of Grant funding up to \$225,000, subject to the availability of funds in accordance with A.I.D. allotment procedures.

I hereby authorize the initiation of negotiation and execution of the Grant Agreement by the officer to whom such authority has been delegated in accordance with A.I.D. regulations and Delegations of Authority subject to the following essential terms and covenants and major conditions; together with such other terms and conditions as A.I.D. may deem appropriate.

This project is being executed by the Nicaraguan Partners of the Americas in coordination with the Wisconsin Partners of the Americas. This will be a project which will begin with heavy technical assistance from the Wisconsin-Nicaraguan Partners. This assistance will gradually be phased out during the course of the project and the MOH will assume the major responsibility for continuing activities under this project.

The financial arrangements for the program over a 3-year period were as follows: AID: \$ 225,000; GON: \$196,000; and Wisconsin Partners: \$ 56,475.

Please see Attachment A for the funding by category.

a. Source and Origin of Goods and Services:

Except for ocean shipping, goods and services financed by A.I.D. under the project shall have their source and origin in the United States or Central American Common Market as A.I.D. may agree in writing.

b. The following waiver to A.I.D. regulations is hereby approved:

The employment of Third Country National advisors on short term advisory assignments (NTE 6 months per visits) may be authorized by USAID/Nicaragua.

Signature: *H. Schantz*

Acting Director, USAID/Nicaragua

Office Symbol

22 Aug. 1977
Date

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT PAPER FACESHEET		1. TRANSACTION CODE <input type="checkbox"/> A <input type="checkbox"/> B ADD <input type="checkbox"/> C CHANGE <input type="checkbox"/> D DELETE		PP 2. DOCUMENT CODE 3
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5. PROJECT NUMBER (7 digits) <input type="text" value="524-0143"/>	6. BUREAU/OFFICE A. SYMBOL LA	D. CODE <input type="text" value="05"/>	7. PROJECT TITLE (Maximum 40 characters) <input type="text" value="Wisconsin-Nicaragua Partners of the Americas East Coast Health Delivery"/>	
8. ESTIMATED FY OF PROJECT COMPLETION FY <input type="text" value="80"/>		9. ESTIMATED DATE OF OBLIGATION A. INITIAL FY <input type="text" value="77"/> B. QUARTER <input type="text" value="3"/> C. FINAL FY <input type="text" value="79"/> (Enter 1, 2, 3, or 4)		

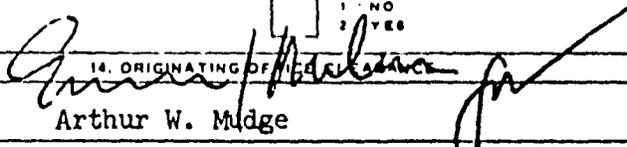
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10. ESTIMATED COSTS (\$000 OR EQUIVALENT \$1 -)						
A. FUNDING SOURCE	FIRST FY <u>77</u>			LIFE OF PROJECT		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL						
(GRANT)	55		55	225		225
(LOAN)						
OTHER U.S.						
1.						
2.						
HOST COUNTRY		13	13		196	196
OTHER DONOR(S)	5		5	56		56
TOTALS	60	13	73	281	196	477

11. PROPOSED BUDGET APPROPRIATED FUNDS (\$000)									
A. APPROPRIATION	D. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. 1ST FY <u>77</u>		II. 2ND FY <u>78</u>		K. 3RD FY <u>79</u>	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	I. GRANT	J. LOAN	L. GRANT	M. LOAN
(1) PH	539 B	510		55		95		75	
(2)									
(3)									
(4)									
TOTALS									

A. APPROPRIATION	N. 4TH FY		O. 5TH FY		LIFE OF PROJECT		12. IN-DEPTH EVAL. SCHEDULED
	D. GRANT	P. LOAN	R. GRANT	S. LOAN	T. GRANT	U. LOAN	
(1) PH					225		<input type="text" value="0778"/>
(2)							
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(4)							
TOTALS					225		

13. DATA CHANGE INDICATOR. WERE CHANGES MADE IN THE PID FACESHEET DATA, BLOCKS 12, 13, 14, OR 15 OR IN PRP FACESHEET DATA, BLOCK 12? IF YES, ATTACH CHANGED PID FACESHEET.

14. ORIGINATING OFFICE SIGNATURE:  Arthur W. Mudge TITLE: Director, USAID/Nicaragua		15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION DATE SIGNED: MM/DD/YY <input type="text" value="6"/> <input type="text" value="10"/> <input type="text" value="77"/>
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February 20, 1977

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- Regional Integrated Rural Health Project -
Eastern Nicaragua

This Project is a PVO/Operational
Program Grant

Developed by
Wisconsin/Nicaragua Partners
of the Americas, Inc.
in conjunction with the
Ministry of Health and the
University of Wisconsin and
NIHIA Center for International Health

Presented to
U.S. AID/Nicaragua

- Table of Contents -

I.	Project Purpose and Description.....	1
	A. Project purpose and target group.....	1
	B. General Description.....	2
	C. End of Project Conditions.....	4
II.	Project Background.....	5
	A. Background, problems to be addressed and resources.....	5
	Core Resources.....	9
	Potential Resources.....	11
	B. Prior Experience in the Project Area.....	14
	C. Host Country Activity in Project Area.....	15
	D. Extension Potential.....	16
III.	Project Analysis.....	17
	A. Economic Effects.....	17
	B. Technological Analysis.....	18
	C. Socio-Cultural Analysis.....	20
	D. Project Relationships.....	22
	E. Likelihood of Project Success.....	24
IV.	Project Design and Implementation.....	28
	A. Implementation Plan.....	28
	1. The Role of the Ministry of Health.....	28
	2. The Role of the Wisconsin Partners.....	31
	3. Role of Center for Regional Development (CENDER).....	32
	4. The Role of AID.....	34
	5. The Role of PAHO.....	34
	6. The Roles of the Council and Participating Organizations.....	34
	7. The Role of the University of Nicaragua.....	35
	8. Implementation Schedule.....	38
	B. Measurement and Evaluation of Project Accomplishment.....	40
V.	Project Design and Implementation.....	42
	A. Implementation Plan.....	42
	1. Community Health Organizations.....	42
	2. Regional Health Council.....	42
	3. Training Operations.....	44
	4. Logistic Support.....	45
	5. Information Collection.....	45
	6. Communication.....	46
	B. Measurement of Evaluation and Project Accomplishment.....	49
	7. Evaluation.....	49
	C. Organizational Structure.....	52

Appendix One.....	54
Letter from Minister of Health Cajina	
Appendix Two.....	57
CENDER - Center for Regional Development	
Appendix Three.....	61
Statement of Understanding - Ministry of Health-University of Wis.	
Appendix Four.....	64
Appointment of Special Advisor to Ministry of Health	
Appendix Five.....	66
Statement of Understanding - Ministry of Health-Wisconsin-Nicaragua Partners	
Appendix Six.....	69
Letter from Nicaragua Medical School	
Suggested Organization Chart.....	71
Budget Summary.....	72
Budget.....	73-80

PROJECT TITLE: Regional Integrated Rural Health Project

PROJECT LOCATION: Selected Areas, Eastern Nicaragua

PVO NAME AND LOCATION: Wisconsin-Nicaragua Partners of the Americas

CENTRAL HEADQUARTERS: 1700 Van Hise Hall, Madison, Wisconsin 53706

CONTACT PERSON: Ned Wallace, M.D.

DATE OF SUBMISSION TO A.I.D.: February 20, 1977

I. PROJECT PURPOSE AND DESCRIPTION

A. Project purpose and target group.

The purpose of this project is to develop in the Puerto Cabezas catchment area a regional institutional structure through which existing organizations will be integrated for more effective delivery of Health, Family Planning and Nutrition services at a cost which does not exceed the personnel and financial resources of the region. The Puerto Cabezas catchment area is defined as including all villages and communities within a 60 Km radius of Puerto Cabezas. The specific target of the project is to deliver minimum but essential services to at least 2/3 of women of reproductive age and children under six within the defined region. Selected additional areas would be added as conditions and resources permit.

A secondary purpose of the project is to foster and test the utilization of certain Appropriate Technology which may include, but not limited to, the use of low cost radios (single side band) and related communications networks to speed and improve systems for health referral, logistics control training and general administration.

It is intended that the essential features of the project which are judged by the evaluation component to have universal value and continuing worth will be considered for replication with adaptations to other regions of Nicaragua.

B. General Description:

The project will focus its efforts on two major undertakings. The first of these is the formation of a new institutional unit embodied in a Regional Health Council which will serve as the integrating mechanism for the delivery of services. Its authority and responsibility will be: 1) to provide general leadership of the program; 2) to coordinate and bring into joint, common action the scattered services of a variety of organizations now operative in the Region; 3) to articulate and interpret an integrated delivery policy which melds both the interests and programs which are sponsored by and for the mutual benefit of the Central Government and the Communities of the Region; and 4) to supervise or provide guidance to subsidiary or supporting systems to be promoted by the project.

The second major undertaking of the project will be to establish and see to the maintenance of Community Health Organizations which will be village centered, and which will serve as the first echelon of action of the integrated delivery system. The project envisions establishing a Community Health Organization in each of 28 villages within the Region having populations of 1,000 or less. Each Organization will comprise a Community Health Committee which will embody the basic

authority of the programs at the community level, and which will be composed of community representatives who serve on a voluntary basis. Each community will include a Health Post staffed by three categories of workers: Health Leaders responsible for the delivery of primary care (1); Nutrition Leaders responsible for nutrition activities; and Midwives who will be responsible for obstetrical care. Family planning will be included in Maternal/Child Health Program.

To achieve these two objectives, the Project will pursue a number of specific operations which will provide continuing support for the total program. These operations will ultimately be an accountable responsibility of the Regional Health Council and will include:

1. The development of a Regional Training Center which will devise curricula based on regional health problems; develop training materials and evaluation procedures; identify basic equipment or kits for trainees; train community workers; and provide guided, continued training for graduates to enhance their skills, expand their horizons and improve the efficiency of the delivery system as the total program gains momentum.
- ✓ 2. The expansion and further development and maintenance of a MOH sponsored logistic supply system to support the Community Health Organizations.
3. The development of a reporting system for the channeling

(1) WHO definition of Primary Care which includes essentials of preventive and curative care.

of appropriate data both to and from the Communities, the Regional Council, other organizations impacting on health in the Region and the Central Government.

4. The formation and operation of a referral system within the Region upon which the Community Workers may rely and which integrates the present services and those which will be made available in the future.
5. The establishment of a low cost radio communications network to provide direct support for the administration of the delivery system, the logistic supply operations and the referral system.
6. A set of operational and administrative guidelines and procedures to implement and facilitate the Regional Health Delivery System.
7. The establishment of an evaluation component to provide on a periodic basis, assessments on project status and efficiency which will serve as an impartial feedback mechanism for project managers and sponsors and as means of gaining greater visibility of the total Regional program within the Central government.

C. End of Project Conditions:

1. Regional Health Council functioning to provide the following: coordination, cooperation, financial management and joint planning and programming among local community based activities, a variety of essential health service activities in the Region, organizations in other sectors impacting on health

and population and the national government.

2. Health committees with active village participation and health posts staffed with village health workers established and functioning in not less than 21 of the villages in the region, and capable of delivering minimum but essential services to at least 2/3 of women of reproductive age and children under six within the defined region. (See page 42 for details.)

II. PROJECT BACKGROUND

- A. Background, problems to be addressed and resources.

The target area is in northeastern Nicaragua along the Atlantic Coast within a radius of 60 Km of Puerto Cabezas. Here there are approximately 35 permanent communities with a population of about 35,000. Twenty eight of the 35 communities comprise populations of less than 1,000 individuals. The estimated 1974 annual income per family was \$70-80/year. Since each family consists of 6-8 members, this income provides only a few basic necessities. There is some basic subsistence farming of rice, beans, and plantains, supplemented by fish and turtle.

The ethnic make up of the region is primarily Miskito Indian, with its own language. Spanish and English follow in frequency of use, although, a significant proportion of adults speak only Miskito. The villages are usually situated along lagoons or rivers. While most villages within 30 Km of Puerto Cabezas are reached by motor vehical during the dry season, many of those between

30 and 60 Km require a boat as well. During much of the rainy season (6 months in duration) many roads are impassable. As a consequence of the geographic isolation from the Pacific Coast, public schools have developed independently. Other donor support of primary and secondary education has supplemented that of government. Secondary schools are present in the major towns of the region.

The basic problem to be confronted is to institutionalize the provision of minimal but essential services of Primary Care (including Preventive Services), nutrition, and family planning to a rural population that is presently beyond the reach of regular, comprehensive public and private health programs. There is little likelihood of sustained growth of needed health services without governmental intervention and supervision. The population is dispersed over a large area; there is poor transportation and virtually no communication; few physicians of the private sector will ever be willing in the future to abandon urban practices for this kind of rural practice. Indeed, it has been observed that the great majority of significant primary health problems can be met adequately by health personnel with skills less than those of doctors or nurses. Because urban expenditure for health care is greater than that for rural services, expensive health

workers (such as physicians) cannot be used to provide primary health care. To illustrate the point, the 1972 per capita expenditure in Managua was eight times as large as that spent in the service area proposed by this project.

Because of the absence of a private or public delivery system, curanderos ply their "skills" on an unsuspecting public, increasing the health problems of the people rather than alleviating it. It is a corrolary that some vendors of pharmaceuticals sell dangerous, unnecessary and expensive drugs across the counter without even having the ability to read the literature supplied with the items they vend.

The specific health and categorical disease problems of the Region are visible and well known, and have been documented by indepth surveys and random sampling conducted in 1974-1975. These problems may be summarized as follows:

1. High Birth Rate: 34/100 year.
 - 52% of population is under 15 years of age.
 - Average number of pregnancies in women over 35 years of age is 6.8.
2. High Infant Mortality: between 25-40%.
 - 46% of women have had children born dead.
 - In 21% of all pregnancies the child will be dead before age 5. Nine per cent of these deaths are from umbilical bleeding at birth, 37% from diarrhea,

43% from unknown causes.

3. Most births are at home, attended by midwives with little or no formal training.
4. Malnutrition - 18% of hospital admissions in the area are for severe malnutrition.
5. Enteric diseases cause the greatest number of deaths among infants and children under 5.
6. Common serious illnesses are malaria, multiple intestinal parasites, and gastroenteritis.
7. Tuberculosis is endemic with evidence of infection in 70% of adults over age 30.

The feasibility of this project rests on the clear evidence that there is a relatively large number of health oriented programs operative in the Region that are not fully mobilized nor coordinated. These programs represent the core resources of the project and upon which the proposed improved institutional structure, serving as an integrating mechanism, will be built. These will be augmented and enlarged by the heretofore untapped resources of village Communities which will be harnessed through the participation of Health Committees. The potential also exists to integrate hospital services with the primary care activities. There are in addition to the core resources, a variety of potential resources that can, through negotiation, become supportive and participate in the project once it is launched. These

core and potential resources are summarized in turn:

Core Resources

1. PUMAR: MOH mobile health teams consisting of a practical nurse, doctor, lab. technician, registrar and driver make village trips in the area around Puerto Cabezas. Visits are monthly, provide medicines, immunizations and data collection.
2. SANIDAD: A Health Center responsible for public health around the town of Puerto Cabezas consists of 2-3 nurses, doctor, lab. technician, 2 registrars.
3. GRAY MEMORIAL HOSPITAL: A Moravian Church activity having 35 bed capacity and providing services to the region including:
 - A point of referral for seriously ill patients.
 - An outpatient service.
 - A site for midwife experience and training.
 - Partial source of medications to health promoters.
 - Teachers to assist with training courses.
 - Experience in rural family planning activities.
 - NOTE: This hospital received high rating from the recent AID hospital review team.
4. AUXILIARY NURSES TRAINING SCHOOLS: Partially subsidized by the Government, the school trains 8 student individuals each year. The quality of the graduates is considered quite good, but their preparation for service is at present oriented toward formal hospital settings.
5. CATHOLIC CHURCH: The Sisters of Santa Agnes and the Capuchin Brothers have cooperated in planning and pre-

senting the training courses for nutrition workers, midwives health leaders, and community leaders.

6. Wisconsin Partners - University of Wisconsin - MUCIA

Project: The products of earlier MUCIA projects, e.g., manpower, facilities and equipment, are available for mobilization in the present project. These include:

- a. 20 indigenous midwives of the 80 in the region who, over the last five years, have attended two or more courses given in Puerto Cabezas and who have demonstrated increased proficiency in their art. The midwives now use equipment and medications.
- b. 15 nutrition leaders who have attended two or more nutrition courses over the last four years. Most of these are active and are involved in regular nutrition education and malnutrition detection programs.
- c. 25 health leaders who have attended one or more health leader courses. Because of budgetary limitations, there has been only sporadic supervision of these workers; hence, there is considerable variation in their performance. There is a modest medical supply system functioning for their support, providing basic drugs and supplies.
- d. Health committees are functioning creatively in seven of 35 communities.
- e. Trained laboratory workers provide basic lab services in five coastal clinics, including the Sandy Bay Clinic located in the target area.

- f. Two-way radios are in use at three locations, providing daily opportunities for patient care consultation, the monitoring of logistic problems and administration matters.
- g. 26 health surveys have been carried out with the assistance of village volunteers and Health Committees in 26 communities. Others are in progress.

Potential Resources

In previous years the Region has received from public and private sector organizations, a variety of rather informal short term, specialized assistance that influence the health of the population. This activity and assistance can be greatly expanded by the project through improved pre-planning, more thorough inter-organizational negotiations, more efficient implementation, and more comprehensive evaluation. While none of these potential inputs are critical for project success, collectively they could profoundly influence ultimate project progress and success and document alternatives for possible replication elsewhere in Nicaragua. The multiplier effect of this modest project could therefore be enhanced significantly. Learning by experience would be greatly enhanced.

1. The National Medical School, in Leon. This School graduates 50-60 physicians each year. The curriculum was revised completely several years ago and is now more oriented to the actual health conditions and health needs of the country. The learning environment continues

to be urban oriented. Emphasis on Community Medicine is modest but increasing. While there remains a resistance to suggestions of change away from traditional individual patient care orientation and urban hospital-based teaching, the medical school leadership is seeking opportunities for educational experiences - in both clinical and community medicine - away from the University in structured rural settings. To capitalize on this interest, the project envisions the participation of medical school faculty and select students in the project component dealing with data collection and evaluation. This arrangement offers a number of attractive features: a) an academic environment offers an impartial point of reference for objective review and evaluation of project objectives, methods impact; b) it would offer a feedback mechanism for the school for assessing the real needs of communities and the corrolary needs in curriculum design to prepare medical graduates to function appropriately in health programs at the community level. This innovation would enhance the quality of service described in Para 2 and 3 immediately below, and would lend a considerable amount of visibility to the project as it brings both academic and governmental programs into joint participation - an important activity to be encouraged and facilitated.

2. Obligatory Service of Medical Graduates: Obligatory service to rural areas for all medical school graduates

is mandatory in Nicaragua. The present medical school curriculum does not prepare adequately physicians to function in rural settings. This project anticipates faculty and student involvement.

3. Student Electives in Community Medicine: Based upon a formal Inter-University Agreement, Nicaraguan and U.S. medical students in the MUCIA Consortium (including Wisconsin) may take course electives in Community Medicine which provide on-site service in rural Nicaragua in meaningful community action, study and research. In a 1973 program, eight students from both countries participated in a combined Community Medicine project; in a 1976 program where 12 Nicaraguan students and two faculty conducted two six week Community Medicine Elective programs. Over the three year period of the project it is projected that at least 30 Nicaraguan students would participate in the project. Depending on curriculum design and available time, more student involvement would be possible. Faculty interest in such a program is already quite high.
4. Ministry of Education: As part of a larger program of Consumer education, a project is under development with the Ministry of Education to develop and demonstrate a low cost regional educational radio system. Present plans foresee the integration of the radio system with the village health communities and the health education efforts of Health leaders and Nutrition leaders in the Puerto Cabezas Region. The feasibility study has

already been conducted and initial programming has begun.

B. Prior Experience in the Project Area

Since the initiation of the Partners of the Americas Program in 1964, a unique growing relationship has developed between the country of Nicaragua, the State of Wisconsin, and the University of Wisconsin. The response from Wisconsin after the Managua earthquake in 1972 resulted in donations of money, food, supplies, and medicine with a total value of over \$350,000. This increased visibility resulted in an enhancement of this relationship both in Nicaragua and in Wisconsin. In 1971 the MUCIA Consortium of Medical Schools joined with Wisconsin to expand the scope of involvement and provide financial support for education and research projects. Since 1971 MUCIA's own financial input has been over \$100,000. The present MUCIA program Development Grant expired in July, 1976. The products of this experience and participation has in part already been cited in this paper. The surveys mentioned in Para A above and in Para A 6 a. through g. have been largely a result of Wisconsin Partners efforts. There has been in addition, a very large number of consultants that have provided assistance to the GON on many facets of health, nutrition, and family planning on both administrative and technical questions. A consequence of this experience is that the Partners together with the Consortium, MUCIA and University of Wisconsin, represent in consolidated form the most thorough and inclusive familiarity and technical expertise available from external donors, anywhere, to confront the

health problems of Eastern Nicaragua. Because of the extremely numerous projects and programs conducted between the Partners, the Consortium and the Government of Nicaragua and the Nicaraguan private sector over the years, the Partners organization is extremely familiar with the MOH strategy for health improvement and is in a position to facilitate the melding of the proposed project into the national programs of the Ministry. These activities of previous years have opened for the Partners and MUCIA channels of communication with virtually every agency impacting on health in Nicaragua: with the University, with the Ministries of Health and Education and with a number of autonomous programs, including the National Board of Assistance and Social Welfare (JNAPS), Local Boards of Assistance Welfare (JLAS), National Institute of Social Security (INSS), and the National Guard Health Program.

C. Host Country Activity in Project Area

The Nicaraguan government has placed recently a relatively high priority on development of the entire Atlantic sea board, an area that has not kept pace with development elsewhere in Nicaragua. Other sectoral development which will have major impact on health in the project area may be briefly summarized as follows:

1. Improved water transportation: Deep water dredging project on the Rio Escondido to permit Atlantic shipping to reach the eastern terminus of the Managua highway. Inland waterway connecting the two seaports of Bluefields and Puerto Cabezas now under construction.

2. Cross Country Road in implementation stage should provide overland transportation directly from Puerto Cabezas to Managua by 1977.
3. Lumber Reforestation Project anticipates export of lumber and pulp by 1977-78.
4. Mining: New discoveries and increasing demand for gold, silver, zinc, copper, now mined in the northeastern portion of the area, coupled with cheaper and improved access to ports by roads is expected to stimulate the mining activities.
5. Agriculture: With more fertile land to be opened to settlement and with increased access to markets, the potential for increased farm output is significant. Small, individual farms are being promoted as the most practical agriculture system to pursue and a UN Food and Agriculture Center has been operating in the North Zelaya area to stimulate the development and use of natural resources and land.

D. Extension Potential

Recent (February 1977) written and oral requests from the Minister of Health suggest the importance of extending the basic health service activities to other areas along the east coast, specifically communities along the Rio Grande, and around the Pearl Lagoon. While the scope of this grant is not designed to be all inclusive for eastern Nicaragua - Regions 7 and 8, it is specifically designed to provide the organizational and administrative framework and foundation on which a Department-wide health program can be built, consistent with CIENSA Health policies and activities, to the extent possible and practical, there will be a continuation of the

assistance and participation in high priority health areas in Zelaya. Specific program activities will be developed with the MOH Regional Representative.

III. PROJECT ANALYSIS

A. ECONOMIC EFFECTS

Although the target population is women of child bearing age and children under six, the project has set the goal of bringing all of the 35,000 individuals in the area under general health surveillance. Early experience suggests that this can be accomplished at very low per capita cost. In the first instance because much of the organizational and administrative overhead is already present in existing institutions, and second, because the dimensions of training and logistic requirements are generally known and are within the capability of the GON to support on a continuing basis, and indeed replicate elsewhere if project results warrant replication.

This project's economic effects on its intended beneficiaries must be considered indirect insofar as production of income is concerned. It reduces the target population's need to expend limited income on ineffective treatment and patent medicines; by reducing the severity of the complications and sequelae of non-fatal injuries and illnesses, enables those of working age to be available to the work force for a greater number of days each year. It should increase longevity and the period of productivity of those involved in income production.

The project should also have a positive impact on the

efficiency of utilization of food which is available in the Region. This result stems from the fact that a sick population needs a much higher food and caloric intake than a population where sickness is under control. As an example, an individual with malaria may require up to twice the food intake to maintain body equilibrium than an individual who is essentially well.

The local labor market should benefit in some measure through the employment of nursing, paramedical, health leaders and health workers of various categories who are recruited from the community, trained, and placed back into the community by the Project. Moreover, the skills that are imparted to trainees are transferable if the trainee moves within or out of the Puerto Cabezas Region; and these skills are in demand nation wide.

B. Technological Analysis

The technology associated with integrated rural health delivery is in an imperfect state. Activities in this area now being conducted throughout the developing world are largely experimental; and as of this date, the state of the art has not been enunciated completely in any authoritative publication. Certain principles, however, have received almost universal acceptance and are based upon the recognition that vertical systems of delivery have failed and are likely to continue to fail to reach the 80% of mankind that are rural and poor, particularly since the ratio of trained physician and nursing manpower to population

is diminishing globally. Another major reason for this failure is that historically, health delivery decisions have been made by physicians. For the most part, the educational experience of physicians is based primarily on care of the sick and injured and takes place in an urban, hospital-oriented setting. After 6-8 years of this type of medical education, most physicians are fully committed to curative care in urban settings rather than preventive public health care which represent the real need in rural communities. Because physicians are both unfamiliar and unsympathetic with the practical problems and needs of the rural poor, new methods of delivery and intervention are necessary. At the same time, it must be recognized that physicians will (and should) play an important role in rural health programs. Physician education must be modified to prepare them to perform new, different, and more appropriate roles.

Experience has shown that the essential features of an integrated system are relatively few in number. These are: 1) that the focal point be the community; 2) that it should be an administratively horizontal structure with as few echelons as possible between the central government decision makers and the purveyors of curative and preventive care in the rural community; 3) that it be capable of functioning without the direct presence of trained physician or nursing manpower; 4) that it should rely on

indigenous community manpower trained in competency-based curative and preventive skills to recognize signs and symptoms rather than in biological and body chemistry theory; 5) that it comprise a referral system to include more highly trained health professionals only when necessary; and 6) that the system be supported by a logistic supply, communication and administration system that is reliable, simple, and within realistic financial limits.

Because the project was designed with the above parameters in mind, it is judged to be reasonable in its approach. Moreover, Eastern Nicaragua is considered a very practical site for implementation because projects prior to this one have experienced minimal resistance to new methods and approaches; many innovations that have been installed have been accepted over time. The technical qualifications of the Wisconsin MUCIA group have already been mentioned and it may be noted that that Organization's Medical Director who will function as Chief Consultant if the proposed project is approved, has had extensive experience since 1961 in patient care and community health, and has served as consultant to the last two Ministers of Health.

C. SOCIO-CULTURAL ANALYSIS

The project will have a major impact on the socio-cultural base of the community in the sense that it will be introducing and institutionalizing a service that has not,

previously existed there, particularly where it suggests evidence of Central Government concern. In large measure, many people and organizations do not know how to use or relate to a service provided by government. They have had little experience on which to base a judgement, except with curanderos or an occasional physician who might take advantage of them economically. The people tend to be demanding of personal attention and have a system of priorities that is based on social rather than technical conventions. Although some customs and beliefs about diseases run counter to the goals of this project, it is believed that as health education increases, they will gain confidence in the medical service offered by their government.

While men were not traditionally considered a part of the paramedical team, there are no institutional or cultural objections to it. The basic value system here is not founded on how well one does something (skills, knowledge, etc.) but on how well one expresses himself in philosophical terms. Positive social status of male workers will only in part be achieved by demonstrating what they can do to help the community - of more importance will be their verbalizing and demonstrating a philosophic view that "rings true" to the community.

The role of women in health care is not difficult to describe. It is wholly accepted, and women physicians in this area are

well respected. The status of the female nurse is high in the minds of most people because they are relatively few in numbers and have provided help but have not been in a position of exploitation as have the occasional physicians and the curanderos. It is self-evident this project emphasizes the central role of women: the major recipients of benefit are women in the Communities; the deliverers of these benefits - midwives, nutritionists, health leaders and project teachers are for the most part women.

The project provides the village community through the local Committee structure the substrate on which it can build its own programs for health care. By acting not only as a prime resource but also as a catalyst, local government may begin meeting its obligation more deliberately, and to a degree may feel a participatory alliance with the Central Government. A community's experience with local health and nutrition involvement will set examples for other forms of rural development activities.

Interests that might be harmed by this project are those of the curanderos and vendors of illegal drugs. Their opposition should not effect the acceptance of the project by the Government or by the people. On balance, the project is judged compatible with local traditions and conventions.

D. Project Relationships

The primary motivation and design of this project is to

provide a mechanism to respond to the needs of the rural poor. The design emphasizes community based services involving broad community participation. The central agent of change and service are local village health workers chosen by the community and trained at a center not far from his or her village. These workers are trained to provide primary health care which includes nutrition, family planning, preventive medicine, as well as basic curative services with an emphasis on services for high risk segments of the population: children under five years and women in their child bearing years. It is believed that these health workers, with the assistance of their direct supervisors at the Region level - the three Coordinators for nutrition, health care, and family planning - will be capable of providing up to 60 per cent of the services expected of a physician in other settings. With a functioning referral system stemming from the workers through the Coordinators and toward the centrally located clinics, physicians and hospitals of the Region, it is believed feasible administratively and technically to meet over 80 per cent of the basic health needs of the Region.

Because of the highly decentralized delivery system envisioned, it is believed that project benefits will be as equitably distributed as possible.

It is not intended that all services will be delivered through village workers; rather, certain categorical delivery

systems will continue to operate in parallel with the new arrangement. For example, malaria eradication, special censuses and other activities will continue to be provided by the specially trained personnel who operate such programs. But the coordination of these parallel programs (in which the workers may contribute within the limitations of their own schedules) will be the responsibility of the Health Council

Project designers believe that the spread effect of the project within the Puerto Cabezas Region will occur from local demand once a critical mass of communities become participatory in it. As demand increases, the ability to expand the catchment area and population served is possible and practical.

E. Likelihood of Project Success

The feasibility and validity of this project as a realistic enterprise is based primarily upon twelve important considerations:

1. The project is entirely compatible with the MOH Health Development Strategy (5 Year Plan) for the ensuing five years, 1976 through 1980. If implemented, it will impact directly on nearly every major objective of the Plan. In those cases where the project will not have a direct impact, it will have an indirect impact. For example, the project does not envision the construction of safe water supplies, but it does envision Community education in sanitation

and, as a consequence, Community motivation to seek assistance in the potable water projects.

2. Officers of the Ministry of Health have reviewed project design and have indicated the government's endorsement of major objectives; the concept of institutionalizing the Regional Health Council and Community Health Organizations has been approved. The dimensions of the costs to the GON is manpower and financing to integrate health programs in the Region are known, and it is the judgement of GON health planners that project replication, if desired, is achievable.
3. A modest logistics system functioning within routine MOH channels is now operating in the Region and it is believed by project planners in AID, the Wisconsin Partners and the MOH, that it can handle the administrative enlargement necessary to reach project targets if augmented by the CAM or Central Medical Supply System for Nicaragua.
4. The MOH has identified the Regional Health Council Chairman (the present Regional Director). Both AID and the Partners, knowing the candidate's past achievement and skills, believe that he has the capacity to effectively administer the Regional Health Council.
5. Contributing organizations, such as Gray Memorial Hospital, PUMAR, etc., have been consulted during project design and each has indicated an enthusiastic willingness to contribute their own manpower, internal logistics and to the extent practical, overhead resources to the project without cost

to AID, or in the case of private organizations, without direct costs to the GON.

6. Community support and participation is assured. This conclusion is based upon previous experience in the Region which has demonstrated high community participation rates.
7. The training facility, as a plant, is already present. In addition, most of the training materials are on hand as products of earlier Atlantic Coast projects, and recent training activities of the MOH in Esteli have produced a large additional source of expertise. Most importantly, the qualitative skilled manpower to conduct training can be readily assembled from within the region.
8. Manpower for Community level activities is in part already in being; up to 10-25% depending on category. Although this manpower may be scattered within the Region, it can be assembled.
9. Leadership and necessary intermediate manpower from the GON has been identified. A wide range of necessary consultant manpower is available through the Wisconsin Partners, PAHO, MUCIA, and other U.S. sources.
10. A modest reporting and data collection system is in being and with further research and consultative assistance from both Wisconsin Partners and GON specialists, is capable of expansion.
11. Radio and related equipment is on hand and considerable experience and expertise is available to operate the

proposed network.

12. It is the considered opinion of AID and the Partners that the project represents the best possible next step in improving the health status of the Puerto Cabezas Region, and the Partners are committing their own internal resources to the program.

IV. Project Design and Implementation

A. Implementation Plan

For a period of three years, and under the terms of a formal agreement between the Ministry of Health and the Wisconsin Partners; the GON, the Partners, and AID will undertake a joint effort to install in the Puerto Cabezas Region an integrated nutrition, primary care and family planning delivery program capable of reaching 2/3 of women of child bearing age and children under six.

A Regional Health Council will be formed to facilitate and coordinate the health activities within the region.

1. The Role of the Ministry of Health

The MOH through its Department of Rural Health Service will establish a position of Regional Director whose duties and responsibilities will be enumerated in a Charter issued by the Department and supported through a line item budgetary allocation. The Charter will serve as a basis of authority of the Director to promote or engage in the project in his capacity as MOH Senior Representative, and will delineate his authority as specified in his duties below.

The Ministry will provide from its own internal, direct hire roles, a variety of manpower to support regionalization of health delivery and will:

a. Establish a financing mechanism to provide stipends for trainees, equipment and materials for trainee graduates, salaries for appropriate graduate health workers, transportation and other delivery related costs.

b. Provide specialized consultant manpower from within

the MOH or other Ministry for assistance to the Director on technical or administrative questions bearing on project design, implementation, and evaluation.

c. Establish and supervise logistic support for the project upon which the Director may rely.

d. The duties of the Director:

1) Serve as Senior MOH Representative on the Regional Integrated Delivery Project.

2) Establish a Regional Health Council in which the Director will serve as Chairman. In his absence an elected Vice Chairman, confirmed by the Ministry of Health, will serve.

3) Recommend for Minister of Health approval, Council membership in liaison consultation with other governmental and private sector organizations that are now operating ongoing programs in the Region in nutrition, primary or preventive care, and family planning. It is expected that the Council membership will include, but will not be limited to representatives of the organizations cited as Core Resources in Para II A of this paper. A member of the Wisconsin Partners may serve on the Council if requested by the Director. Adequate representation of the communities will be included in the Council.

4) Supervise directly or by deputation a staff support group having the dual function of: a) providing executive, planning, implementing and administrative services for the Council as a permanent service, and b) identical services for the Project as

long as it is in existence.

5) To develop within the first 12 months of existence a detailed plan for operation and organization of the Regional Health Council, to be submitted to the Ministry of Health for approval.

6) Supervise or coordinate an integrated outreach program as promoted under the authority of the Council and including:

a) The development of close communication and links with Rural Communities to gain their participation and involvement;

b) The operation and maintenance of a training center for community recruited health personnel;

c) The operation of a regional information and data collection system designed to provide information to the communities, to participating government and private sector organizations, and the Central Government;

d) The coordination of an MOH sponsored logistics system for supplies flowing from the government to the communities;

e) The operation of an integrated communication system including the use of radios (single sideband) for the maintenance of referral, logistics and administrative communications channels;

f) The facilitation of public health education;

g) The development of referral and treatment mechanism with clinics and hospitals in the area.

7) Produce a yearly Regional Budget for Health Delivery to be submitted to the Regional Health Council for approval prior to forwarding to MOH.

2. The Role of the Wisconsin Partners.

a. The Partners will assemble and coordinate all of the external donor assistance required by the project to include a Chief Consultant to the Project.

b. A primary responsibility of the Chief Consultant in this assistance will be the provision of consultant experts to provide guidance on a need basis to the HOH or the Project Director. He will, in addition, manage the task assignments of American medical undergraduates who may pursue credit courses through service to the program. He may also undertake in an operational sense the management of a project component such as Health Workers training, if requested by the Director.

Use of non-Nicaraguan specialist manpower is meant to complement or broaden the consultant resource available to the Project and will not be used to circumvent the considerable specialized talent distributed throughout the GOH. Consultant projects combining national and expatriot talent are recognized as being mutually beneficial.

Because of the financial accountability which accompanies such a grant, the Wisconsin Partners will be the responsible fiscal agent for the Project. Based on budget details and accounting methods developed with the Project Director, funds would be transferred periodically from the Wisconsin Partners to the CENDER Special Account. Standard accounting practices will be used. Financial statements will be prepared every six months and sent to HOH; AID/Nicaragua.

An annual report will be prepared by the Wisconsin Partners

and, along with the report from the Project Director, submitted to AID/Nicaragua annually.

3. Role of Center for Regional Development (CENDER)

As the operational arm of the Wisconsin Partners in eastern Nicaragua CENDER will play an important role in the Project, that role will change over the three-year project span.

Involvement includes:

a) Provision of a communication link between Wisconsin Project Manager and the Nicaraguan project personnel.

b) Use of physical facilities - office, communication, transportation, teaching aids.

c) Trained personnel for staff support for administration and secretarial assistance.

d) Assistance in data collection.

e) Assistance in personnel training for teaching, research and administration.

Relationship between Regional Health Council (RHC) and Center for Regional Development (CENDER): As of January 1977, with no Regional Health Council in existence CENDER has attempted to undertake those activities which are planned for the RHC. The generation of this grant document is consistent with the goals of the Wisconsin Partners and CENDER as regional institution building is encouraged.

Since it is recognized that the institution building process (in this instance, the RHC) takes time measured in months and years, a gradual growth, assumption of responsibilities, organizational development is planned. During this time, estimated

from 12 to 24 months, CENDER will continue to supply staff and administrative support for the RHC and its primary initial project - the training, supervision and support of community health leaders. The CENDER Coordinator will function initially in a counter part role to the MOH Regional Director.

Transference of overall responsibility to the Regional Director of Health Service is planned as soon as MOH administrative and organizational structure and function are operational. During the first half of the project, it is expected that the Director will rely heavily on the present CENDER operating base.

At the end of the three-year grant period, a role and relationship between the Regional Health Council and CENDER is expected in which operation responsibility of the project will lie with the RHC.

CENDER will continue to:

- a) Provide a link with University of Wisconsin, Wisconsin Partners, MUCIA Consortium, and other U.S. institutions in service, education, and research capacities.
- b) Assist in data collection and evaluation activities with the Nicaraguan Medical School and other national and international institutions.
- c) Provide a source for experienced consultation services in response to RHC requests.
- d) Conduct research, development in innovations in Rural Health Care consistent with the Agreement of 1976 between the Ministry of Health and University of Wisconsin.
- e) Assist as requested in provision of services and activities as requested by the RHC.
- f) Coordinate Health Professional Education in Community

Health with Nicaragua and U.S. Health Science schools. It is quite possible that the NIC and CENDER share common facilities, equipment, personnel for operating convenience and to avoid expensive duplication of efforts.

4. The Role of A.I.D.

A.I.D. will provide the costs of the Dollar grant, stand ready to provide short term specialist manpower from Managua Mission Staff, and will ^{participate in} [provide ~~certain~~] evaluation activities, in addition to evaluation activities sponsored by the project. AID will also contribute communications support for the project and will assist in control and management of consultant visitors. The AID contact will be the Chief of Health and Family Planning Services Division of the Mission.

5. The Role of PAHO.

PAHO will provide a source for reference and specialized guidance, especially for those project elements that are critical for the regionalization of the delivery system.

6. The Roles of the Council and Participating Organizations.

In structure, it is anticipated that the Council will include, in addition to the MOH Regional Director, representatives from participating organizations, including PUMAR, SANIDAD, Gray Memorial Hospital, the Nurses Auxiliary Training School, the Catholic Church, dentist^s and local teachers of Home Economics and Industrial Arts from the Ministry of Education. It may also include representatives of the Ministry of Agriculture and others of the public and private sector who represent activities that impact on health. Outstanding or recognized local Community leaders will also be made members.

It is expected that the Council will structure itself into problem oriented committees: for example, program planning and budget management, health education, data management, community action, etc. With the technical assistance of the support staff of approximately three individuals, it will be expected to function essentially as an inter-disciplinary team or cross-function work group. Project officers who direct project components, i.e., training, logistics, health worker, nutrition or family planning, will report to the Chairman and to the Regional Health Council as one of the operational arms of the Regional Organization.

Project designers are confident that the Council as an integrating mechanism will become permanent in the fabric of health administration in the Region after donor support is ended. In the first instance, because each of the participating organizations is now pursuing in microcosm some of the functions the Council will promote; and in the second instance because the leaders of these organizations have expressed to project designers and to one another the need for collaborative arrangements.

7) The Role of the University of Nicaragua.

As a step to end the separation of the institutions responsible for health service from those responsible for education, the project intends a major involvement of the Nicaraguan Medical School (with others) in the project component concerned with evaluation. The intent is to open to the project the extensive expertise available in the School and in a small way to sensitize, motivate, and develop the capability of the school to participate actively and creatively with the MOH.

A special benefit to the Medical School will be the opportunity for students and faculty to participate in an ongoing innovative Community Health program.

The role of the National School of Medicine will be to assist in the definition and implementation of an evaluation system designed to measure the effectiveness of reaching activity targets. It is expected the School will provide part time assistance of up to two or three permanent faculty for the duration of the project and a rotating group of up to six students to carry the activity. MUCIA, project staff and other organizations may also be involved.

It is expected the Evaluation group will function intermittently throughout the three year period of the Project. The group will meet early on in the project to develop a design, reconvene periodically to assess progress and produce a final report at project completion. It is not known what exact elements the Evaluation Plan will include, the the following statements are offered as illustrative of what is intended.

a) Establish a simplified (or best estimates) of baseline information to determine the cost of the present delivery system and the number of people reached, including a statistical determination of health status.

b) Determine the cost of the integrated system after it is in place after one year and each year thereafter, with an assessment of its quality and progress in reaching the target population, including a statistical determination of health status.

c) Determine which costs should be included in any calculation of project replication.

d) Provide the Regional Health Council and collaborating organ-

izations with analyses, interpretations, experience and insights relevant for planning and programming in their spheres of interest.

e) Provide assessment of the quality and effectiveness of trainee graduates and of the referral, logistics and communications systems.

f) Assess ways in which the Medical School can be continually involved in Community Health activities.

There follows an outline of the structure of the Regional Organization with its proposed constituent membership and project staff.

8. Implementation Schedule.

a. First Year

- 1) Form Regional Health Council, determine membership patterns in Consultation with contributing organizations, and structure Council into action Committees.
- 2) Install support staff functions within Regional Health Council.
- 3) Develop syllabus for training curriculum.
- 4) Develop visual aids for each training course.
- 5) Develop handbooks in Miskito and Spanish for each category of trainee.
- 6) Prepare evaluation format and develop baseline data.
- 7) Establish guidelines for referral system and publish.
- 8) Establish guidelines for logistics support system and publish.
- 9) Establish guidelines and operations standards for radio net and publish.
- 10) Obtain participation of interested Communities in Project Program, and follow up on recruitment of up to three trainees from each community participating.
- 11) Develop activity guidelines for those communities interested in participating in Community Health effort.
- 12) Train and graduate one class of each category of trainee.
- 13) Conduct a Review and Planning meeting in which annual reports would be presented.
- 14) Establish referral mechanism with clinics and hospitals.

b. Second Year

- 1) Conduct evaluation survey to measure progress of first year graduating group and impact on first year Communities in terms of health status (see Para IVB).
- 2) Conduct an analysis of the cost of operations for first year.

- 3) Conduct special review of logistics, radio and referral systems.
- 4) Produce draft action plans for each Council Committee and incorporate in overall Regional Plan.
- 5) Continue expansion of number of communities in Project program, and follow-up recruitment of up to three trainees from each new Community participating.
- 6) Train and graduate 3-4 classes of each category of trainee.
- 7) Develop materials for advance training and continuing education for each category of trainee and conduct one class for each category type.
- 8) Conduct a Review and Planning meeting in which annual reports would be presented.
- 9) Prepare initial plan to expand program to other parts of Zelaya.
- 10) Review structure and function of Regional Council and modify as indicated.

c. Third Year

- 1) Conduct evaluation survey to measure progress of first and second year graduating groups and impact on first and second year Communities in terms of health status (see Para IV B).
- 2) Conduct an analysis of costs of operations for second year.
- 3) Conduct special reviews of logistics, radio and referral systems.
- 4) Refine action plans for each Council Committee and incorporate into overall Regional Plan (in a single general statement) meant to form basis of Regional activity for ensuing two years - 1979-1980.
- 5) Obtain participation of remaining communities in Project programs, and follow-up recruitment of up to three trainees from each new community participating.
- 6) Prepare plan to expand and include.

- 7) Train and graduate 2-3 classes of each category of trainee.
- 8) Refine materials for advance training for each category of trainee and conduct 3-4 classes for each category type.
- 9) In ninth month of third year, conduct final assessment of project progress and produce final report of evaluation component (see Para IV B).
- 10) Conduct a Review and Planning meeting in which annual reports would be presented.
- 11) By ninth month, prepare final plan for continuation/expansion of program.

B. Measurement and Evaluation of Project Accomplishment

Specific Schedule (by the end of 3rd year)

1. Reduce infant mortality (0-1 year) by 30%.
2. Reduce mortality of preschool children (1-4 years) by 40%.
3. Reduce maternal mortality 30% (from 2% to 1.4%).
4. Reduce severe enteric and parasitic infections (requiring hospitalization) by 50%.
5. Reduce protein-caloric malnutrition in children under 5 by 75% for grade 3, and by 40% for grade 2 deficiency.
6. Provide pre- and post-natal assistance and rehabilitative nutritional care to 80% of child bearing women.
7. Reduce mortality by tuberculosis by 30% and the morbidity by 30%. Vaccinate 80% of children under 5 years against tuberculosis.
8. DPT immunize yearly 80% of children under age 6.
9. Tetanus toxoid immunize 80% of pregnant women.
10. Measles vaccinate 85% of children under 5.
11. Polio vaccinate 85% of children under age 5.
12. Decrease birth rate by 15%.
13. Increase child spacing average by 20%.

GENERAL SCHEDULE

Provide primary care, nutrition and family planning services to 2/3 of women of child bearing age and children under six in entire project Area; or alternatively, 100% of such coverage in 21 of 28 village Communities in the Project Area.

INTERPRETIVE NOTE

The targets shown above conform to the goal of the MOH for the five year plan ending in 1980. Targets will be revised at the end of the first year based on more accurate data and achievement of realistic program capability.

ANTICIPATED COMMUNITY OUTPUTS

Community based projects with active involvement by the Health Committees will include:

Potable Water
(60 wells with Pumps)

Latrine Construction
(180 Latrines)

Vaccination (85% children
under age 5)

MCH, Nutrition and
Family Planning Services
operational in 85% of
communities.

Decrease water borne diseases

Decrease communicable diseases

Improve level of health and
high risk groups

V. Project Design and Implementation

A. Implementation Plan

Description of how the Project will be carried out:

The project will build upon a foundation already established, on links already made. There will be, therefore, based on experience, reinforcement and modification of ongoing activities and methods as well as development of new ones.

1. Community Health Organizations

Periodic visits will be made to Communities by Program Staff, including health personnel, to review the role and responsibility and commitment of the Community in the health program; assist in a) process for selection of Health Committee; b) organization of Health Committee; c) selection of health workers.

Once the Community is organized, the Health Committee selected and operating and Health Workers chosen, the Health Workers would enter the training program at Puerto Cabezas. Upon completion of the training, they would be provided with necessary equipment and supplies and begin their assigned tasks. Appropriate financial remunerations for Health Workers would be determined by the Regional Health Committee and Communities.

An instructor would visit the community periodically to: provide on-site teaching; assist in patient care; review supplies and data collection; meet with Health Committee to assist in its growth, projects, and relationship with Health Workers.

2. Regional Health Council

The Council will be a representative body. Its membership will be chosen initially by the Regional Director and CENDER Coordinator with

approval by Ministry of Health. Members would include representation of a) health organizations already working in the area, b) other involved institutions and, c) communities.

The Council will meet periodically to plan, set policies, review projects, assist in evaluation. Subcommittees would serve in major activity areas as indicated on the organization chart.

Within 12 months, the Council will devise an organizational plan which will include membership responsibilities and tasks, relationship with other institutions, by-laws, etc., and submit these to representative organizations and to the Minister of Health for final approval.

The initial role of the Council will be in coordination, communication, planning, and advisory to Health Training and Community Organization activities. Flexibility in organization will permit changing roles, responsibilities, and membership.

The Partners, through CENDER, will work together with the Regional Director in the evaluation and institutionalization of the Council.

3. Training Operations

Training operations will include development of courses for Health Leaders, Nutrition Leaders, Midwives (once established, the present CENDER training program for Midwives will be incorporated into this program). A registered nurse or a health workers with equivalent qualifications will supervise each training area. The nurse will be responsible for curriculum development, conduct of courses, evaluation, continuing education, handbook development, on-site supervision of Health Workers, and liaison with the Health Committee. The nurse will be responsible to the Project Director. Use of facilities, finances and other administrative details will be the responsibility of the Project Administrator and his/her assistant.

As required, advice and consultation on curriculum development and teaching methods and evaluation will be sought from experienced consultants within Nicaragua and from other countries. The Partners will assist in identification of consultants from beyond Nicaragua. Such consultants will be expected to be involved for at least the duration of the project and hopefully, if needed, beyond that time.

As required, and when possible, opportunities for training of the staff and nurses will be encouraged.

Training Operations

Courses

Duration of initial and periodic courses will be determined by the staff. Experience suggests that 4-5 weeks per year is practical. Management health workers have difficulty being away from their homes for more than two weeks at a time.

Expenses

Trainees will be provided travel to and from the training site (Puerto Cabezas) and room and board while away from home.

Facilities

Training facilities already found to be practical will be used. These include Catholic convent classrooms, Moravian Hospital classrooms, Sanidad facilities. Appropriate compensation for such use will be provided.

4. Logistic Support

Logistic support will include the acquisition and distribution of medicine and supplies for community use and for Training Program use. Supplies will be obtained through CAM (Ministry of Health central supply) and other established channels. A central storehouse at Puerto Cabezas will be used. The Project Assistant will be responsible for these services.

5. Information Collection

Data to be collected will be determined by Project Director, Council, and evaluation consultants. Methods of collection will be included in the Training Programs. Responsibility

at the Community level for data collection will be both the Health Committee (e.g., census) and the Health Workers (e.g., number of immunizations given in past month). The nurse teacher-supervisor will be responsible for collection of Community data and its tabulation - with the help of Project staff.

Simple, practical methods for collection and recording data will be developed with CENDER. Data will also be collected by medical and nursing students under the supervision of Medical School faculty. This information will be used for planning, surveillance, screening, and evaluation.

At the beginning of the project, representatives of the organizations to be involved in data collection and evaluation will meet to determine what information will be collected, by whom, and the methods.

Annual Review Meeting

An Annual Review Meeting will be held, on-site, with local, regional, and national representatives. The purpose will be to review past accomplishments and experience, evaluation, and plan for the future.

6. Communication

The radio communication system will be used both within the target region and with isolated clinics along the East Coast.

The radios will be used for patient care consultation, administration, data collection, and continuing education.

Radios are recognized as extremely beneficial to enhance health services in isolated regions. Experience to date in eastern Nicaragua confirms these observations.

Throughout the course of the Project, 2-way radios will be used in a variety of ways and their use will be carefully evaluated. It is anticipated that radios will be used in other regions with a resultant nation-wide communication network which would link more closely and efficiently the Health Ministry services.

Because of the technical nature of the radio project, responsibility for maintenance and repair will be delegated to CENDER. (CENDER and University of Wisconsin will seek funds for further research and development on 2-way radios.) Instructions for use of the radios will be included in the training courses.

Technical Assistance

The Partners will provide technical assistance through a) volunteer consultants from within the State of Wisconsin, b) paid consultants from within U.S. and other countries, c) volunteer services of CENDER staff in Nicaragua. A major feature of the technical assistance component will be the use of experienced advisors from within Nicaragua - the Ministry of Health and the Medical School. Experience, protocols, training material from other MOH Rural Health Projects (e.g., PRACS) will be reviewed and modified as necessary for use within the region. This project will provide the opportunity for Medical School faculty to participate actively in MOH rural health programs.

Such involvement will relate to probable Medical School

and Nursing School participation in the Community Health Education programs of CENDER on the Atlantic Coast.

This project will provide a foundation for Medical School - MOH combined work in rural health. Such work is recognized to be essential as the Medical School prepares its students to work in rural areas of the country during obligatory service years. Technical assistance will be enhanced with Appropriate Technology projects of CENDER.

This Project will provide the opportunity to identify needs of methods and equipment which could be considered for Appropriate Technology research and development. At the same time, field testing of Appropriate Technology R & D could be done within the Project.

Disbursement

The Wisconsin Partners as the grantee will have final financial responsibility. The Partners recognize the value of fiscal responsibility to institutional growth and maturity and plans to shift much of the fiscal responsibility from CENDER to the Regional Health Council and the Training Project Staff. The factors which will determine such shifts will be evidence of organizational stability and an effective accounting and control system.

Initially, funds for salary and local expenses will be sent from the Partners special account each month. Equipment and supplies from the U.S. would be purchased by the Partners.

A checking account in Puerto Cabezas and a U.S. checking account in Wisconsin will be opened for Project use. These accounts will be reimbursed periodically from the Partners grant upon receipt of valid evidence of expenditures within budgetary guidelines.

Soon after receipt of the grant and before actual Project operation begins, the Treasurer of the Partners will visit Nicaragua to work out accounting and disbursing details. An annual audit is planned.

Schedule

Assuming grant approval in early 1977, Project beginning is scheduled for July 1, 1977. Because some activities are already under way to some degree, it is planned that definite schedule would be developed in March or April at a meeting in Nicaragua of the Project Director, CENDER Coordinator, and a Partners representative.

B. Measurement of Evaluation and Project Accomplishment

7. Evaluation

Evaluation will have three components:

a) Internal (Implementation Monitoring)

Based on analysis of information collected from within the project to enhance project implementation and assess progress toward stated goals.

b) External - Within Nicaragua Representatives from the Nicaragua Medical School Dept. of Preventive Medicine appointed by the Dean, and from the Ministry of Health appointed by the Minister, would form an Evaluation Team. This group would work with the Wisconsin Partners Project Director to review each year the overall progress, identify factors and conditions to be corrected or modified for improvement of the project. This Report would be used as a foundation for the Annual Review and Planning Meeting.

c) External- Beyond Nicaragua

U.S. AID, Ministry of Health and Wisconsin Partners would determine the appropriate organization from outside Nicaragua which would be responsible for the overall evaluation. The schedule, specific tasks and organizations involved would decide within 6 months of project operation.

Evaluation will focus on:

- a) Assessing factors which impede or enhance project administration and operation.
- b) Assessing conditions and factors which influence the project's ability to reach stated outputs and targets.

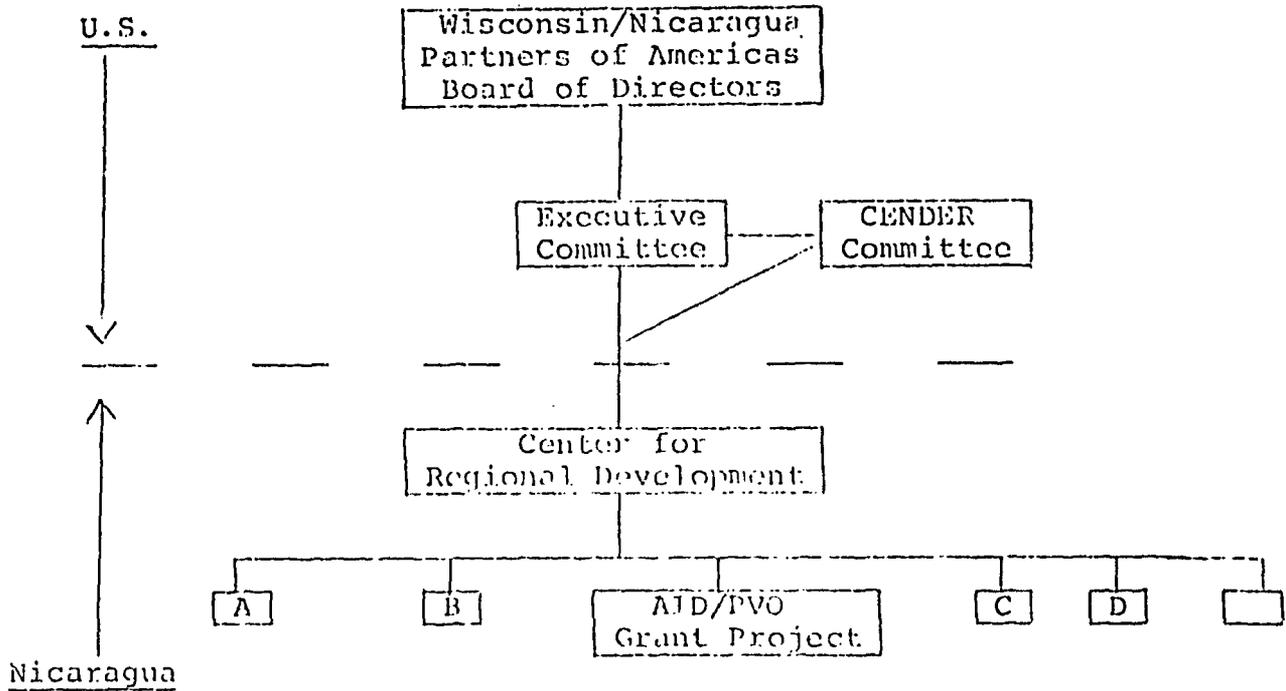
- c) Assessing the degree to which the coast health activities are:
 - 1) coordinated within the region
 - 2) integrated with national health program
- d) Effectiveness of the concept and mechanism of regionalization for Nicaraguan Health Services.
- e) Impact of use of 2-Way Radios in health and rural development in eastern Nicaragua.

c) Organizational Structure

Relationship of CENDER and AID/OPG Project

Beginning of Project

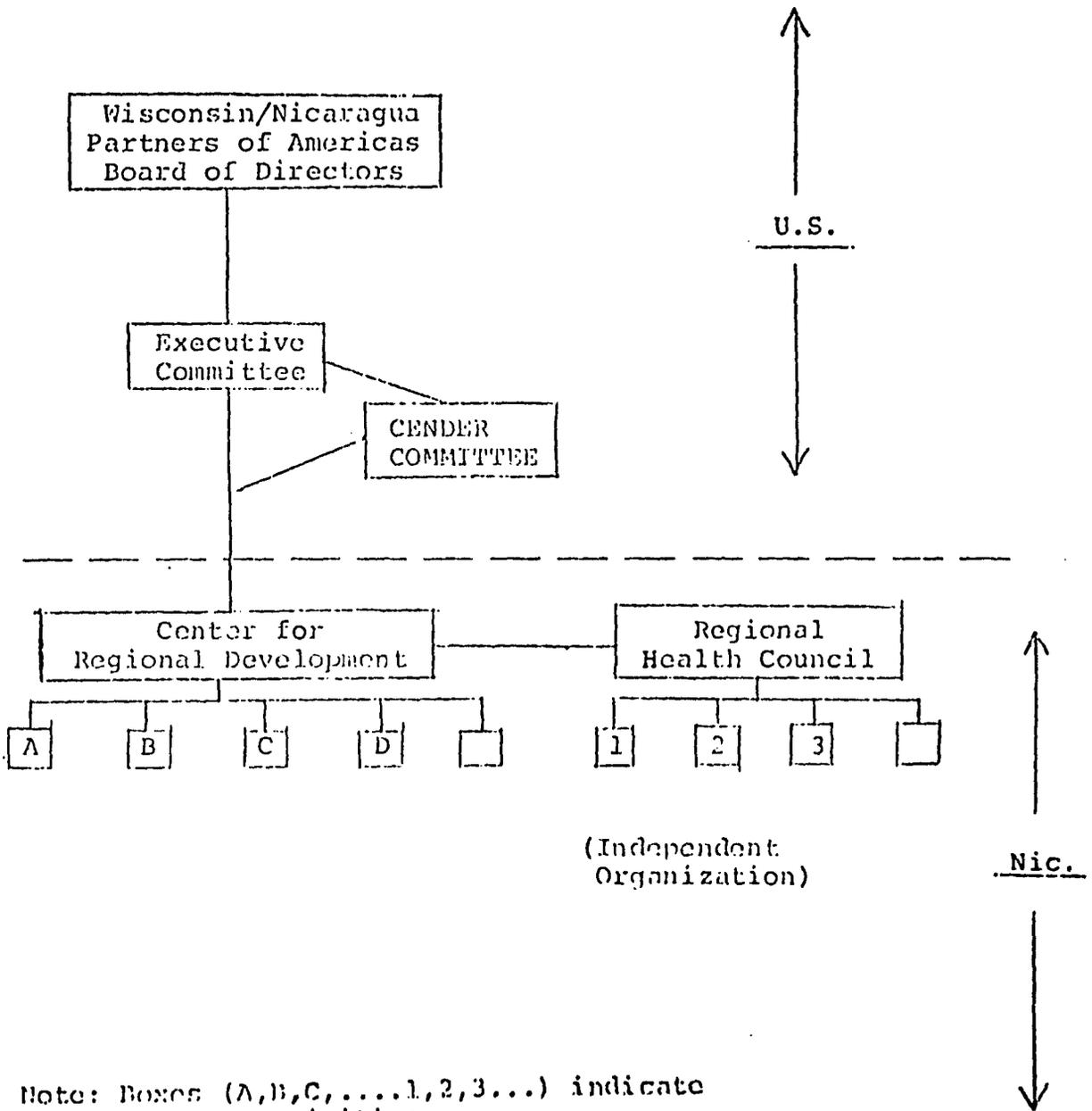
Administration - Beginning of Project



Note: Boxes indicate specific project activities of CENDER.

Administration

End of Project



Appendix 1

Letter from Minister of Health Cajina - May, 1976 -
responding to initial draft of Project Proposal.

Subsequent conversations with the Minister have reinforced
his initial sentiments.

English translation of letter from the Ministry of Health

May 31, 1976

Dr. Ned Wallace
Director, MUCIA Center for
International Health
610 Walnut St.
Madison, Wis. 53706

Dear Doctor Wallace,

This is to acknowledge receipt of the document entitled: Project for Rural Health for the Atlantic Coast of Nicaragua. We have studied it thoroughly.

With pleasure I will facilitate such an important project since it coincides with the concern of our government to improve the level of health in the Department of Zelaya, and is in accord with the rural health policies of the National Health Plan.

I would like to declare our government's support for such an important project. We will do all the necessary efforts to interest AID or other international agencies in financing this project. Without doubt the project will be of great benefit for the eastern region of Nicaragua, where our government has initiated new works of infrastructure, communications and roads, municipal development, agricultural development, and health within the limits of the available budget.

I reiterate my gratitude for such an important document, as well as our interest in the success of the project.

I am pleased to restate to you my consideration and esteem.

Adan Cajina
Ministry of Health

AC/gsv

Appendix 2

CENDER

Centro de Desarrollo Regional

Center for Regional Development

CENDER is the Wisconsin/Nicaragua Partners Regional Development organization in eastern Nicaragua within which Health activities comprise the major component.

APPENDIX 2

Center for Regional Development (CENDER)

In July 1976, the Center for Regional Development was formed as an outgrowth of Wisconsin-related health and nutrition activities in the region of eastern Nicaragua, principally, the Department of Zelaya. Presently supported by the Ministry of Health, Wisconsin/Nicaragua Partners; University of Wisconsin.

The change to a Rural Development Center concept was prompted by the realization that the improvement, in the well being of the rural poor, is influenced by the interrelation of major sectors of health and nutrition, education, food production, economic development, and communication.

The stated purposes of the Center are:

- 1) to coordinate, facilitate, and administer Wisconsin-related rural development activities in the Department (State) of Zelaya in eastern Nicaragua.
- 2) to provide appropriate services from Wisconsin in organization, research, and training for rural development projects of the region.
- 3) to promote the institutionalization of regional rural development activities.

As stated in the CENDER organization document, the following Services would be provided:

- a) Facilitate program planning, implementation, information collection and evaluation.
- b) Maintain close communication and liaison between the

various Wisconsin, national, and regional Nicaraguan organizations.

- c) Serve as a resource center for education and training material.
- d) Facilitate linkages with all groups included with Rural Development in the region; with national and private government organizations and international agencies.
- e) Provide administrative services relating to supply, transportation, education, service, and research activities.

The services now being provided by CENDER form the administration and operation base for many Rural Development activities, including the Health Worker Training Program; Community Logistic Support for medicine and medical supplies; Rural Health Data Collection; Nutrition Education and Training; Appropriate Technology/Health Projects.

In the project under consideration, since CENDER has already begun Community Health Worker training, established a modest logistic supply system linking communities with MOH CAM (Supply Unit), and operates a radio communication network, it is practical that CENDER provide the initial staff and operational support for the project under consideration until the Regional Health Council Organization and operation structure can be developed. It is presumptive and inappropriate to set a rigid structure and function for the Regional Health Council before the project gets underway. Indeed, it is one of the major purposes of the project to develop

and institutionalize a Regional Health Council. If such a Council is to be representative, coordinating, and creative, the deliberations and discussions by all involved is essential. The institutionalization of the Council is seen to be evolutionary with changes in structure and function based on periodic evaluation. It is appropriate at this time that the MOH Director of Regional Health Services be the Chairman of the Regional Health Council.

Appendix 3

Statement of Understanding between the Ministry of Health
and the University of Wisconsin Center for Health Sciences, 1976.

~~AGREEMENT~~

BETWEEN

MINISTRY OF PUBLIC HEALTH

OF

NICARAGUA

AND

"UNIVERSITY OF WISCONSIN CENTER FOR HEALTH SCIENCES"

UNITED STATES OF AMERICA

DATE: January 9, 1976

A handwritten signature or set of initials, possibly "C.C.", written in dark ink. The signature is stylized and appears to be a personal mark.

Agreement between Ministry of Health and University of Wisconsin Center for Health Sciences.

This agreement recognizes and confirms the special relationship already established between the University of Wisconsin Center for Health Sciences and the Ministry of Health.

The foundation of experience and goodwill which has evolved and grown during the past 10 years permits the consideration of increased and expanded activities in the future.

The following areas of combined participation are recognized to be of mutual benefit for the institutions involved as well as providing valuable information related to innovations in health care in many countries of the world:

- 1) Planning, execution and evaluation of integrated rural health programs.*
- 2) Development of community health programs for health profession students.*
- 3) Devising and testing innovative methods for administration of rural and regional health services.*
- 4) Planning and presenting conferences and workshops designed to disseminate new methods of health care and health education.*

Cont. 'd.....



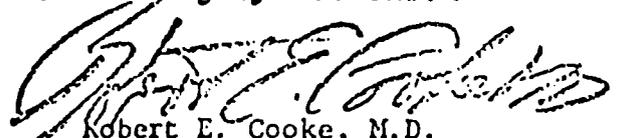
- 5) Development and field testing of appropriate technology related to improvements in health care and water supplies.
- 6) Devising and testing innovative methods of health, nutrition and agriculture education using mass media and non-formal methods.
- 7) Developing and testing methods of collecting and tabulating health data and statistics from rural areas.
- 8) Research in the role of the health sector in Rural Development.

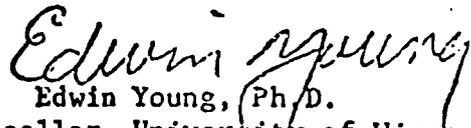

EDGÜI CAJINA
Minister of Public Health
of Nicaragua





NED WALLACE M.D.
Director International Health
University of Wisconsin


Robert E. Cooke, M.D.
Vice Chancellor for Health Sciences


Edwin Young, Ph.D.
Chancellor, University of Wisconsin

Appointment of Special Advisor
to Ministry of Health

AÑO INTERNACIONAL DE LA MUJER



MINISTERIO DE SALUD PUBLICA
MANAGUA, D. N.

January 5, 1976.

Dirección Cablegráfica: SALUBRIDAD

0006

Nº.....

Ned Wallace, M.D.
International Health Affairs
University of Wisconsin
610 Walnut St.
Madison, Wisconsin 53706
U. S. A.

Dear Doctor Wallace:

The signing of the Agreement between the Ministry of Health and the University of Wisconsin Center for Health Sciences recognizes our mutual hope for continuation and expanding our relationship with your institution and the Ministry of Health.

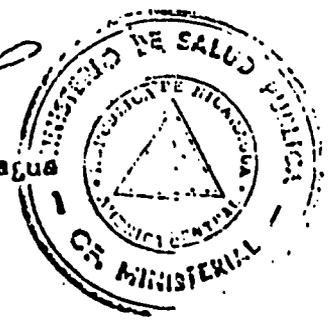
Since you have been involved with a variety of health programs in Nicaragua and because of your broad experience in International Health, I would invite you to become a Special Advisor to this Ministry.

In this capacity we would hope that you would continue to work together with us as we begin to implement our 5 Year Health Plan.

With personal regards, I remain

Sincerely,

ADAN CAJINA
Minister of Health of Nicaragua



cc: file
JAC/arlg.-

Appendix 5

Statement of Understanding

Ministry of Health/Wisconsin-Nicaragua Partners of the Americas.

This document was approved by the Minister of Health and by the Partners Executive Committee in February, 1977. It is in the process of being translated into Spanish and an official document prepared.

Statement of Understanding

Ministry of Health

Wisconsin/Nicaragua Partners of the Americas

In recognition of the long term involvement of the Wisconsin/Nicaragua Partners of the Americas along the eastern coast of Nicaragua in the Department of Zelaya, this document defines the program areas of common interest.

This document is a logical consequence of combined cooperative participation of the Ministry of Health and Wisconsin/Nicaragua Partners of the Americas in many health-related activities and projects during the past 10 years.

This statement affirms the commitment of both the Ministry of Health and the Wisconsin/Nicaragua Partners to cooperative activities in the general program areas of:

- 1) *Establishment of a Center for Regional Development to serve as the administrative and coordinating base for health and rural development activities of the Wisconsin/Nicaragua Partners; University of Wisconsin and the MUCIA Consortium of Universities.*
- 2) *Delivery of Rural Health Services*
- 3) *Education and Training of Health and Nutrition Personnel*
- 4) *Development of Regionalized Health Services*
- 5) *Data Planning, Collection and Evaluation*
- 6) *Communication and Non-formal Education for Health*
- 7) *Development of Community Based Health, Nutrition and Family Planning Services*
- 8) *Comprehensive Nutrition education training and rehabilitation activities*
- 9) *Environmental health activities - potable water and waste disposal*

- 10) *Child health and immunization activities*
- 11) *Development and testing of innovations and
Appropriate Technology related to rural health
services*

The Wisconsin/Nicaragua Partners of the Americas recognizes its ongoing responsibility to plan and work closely, and cooperatively with the Ministry of Health at all organization and operational levels and to be sensitive and receptive to Ministry of Health priorities.

The Wisconsin/Nicaragua Partners affirms its responsibility to share results of all studies and activities of the Center for Regional Development with appropriate individuals and Departments within the Ministry of Health and/or other appropriate organizations.

The Wisconsin/Nicaragua Partners also affirms its commitment and responsibility to avoid personal and institutional involvement in political affairs of the country. It recognizes, also, the necessity to continue to encourage self-reliance among the people and communities, and to work in harmony with elected and appointed representatives of the people at all levels of government.

The spirit of this document will remain in effect as long as the Wisconsin/Nicaragua Partnership remains active in eastern Nicaragua.

Ing. Adan Cajina, Minister of Health

Dr. Jose Canton, President
Nicaragua/Wisconsin Partners
of the Americas

Dr. Henry Peters, President
Wisconsin/Nicaragua Partners
of the Americas

Dr. Ned Wallace, Chairman
Health Committee

Letter from Nicaragua Medical School -
Community Medicine



UNIVERSIDAD NACIONAL AUTÓNOMA DE NICARAGUA
FACULTAD DE CIENCIAS MÉDICAS
DECANATO
LEÓN, NICARAGUA, CENTROAMÉRICA

May 7, 1974

Dr. Ned Wallace
International Health Affairs
610 Walnut St.
Madison, Wisconsin 53706

Dear Doctor Wallace:

The Community Medicine curriculum of our Medical School has been enlarged to provide more experience in this very important - - segment of medical education.

Since the activities of the University of Wisconsin - - Medical School along the Atlantic Coast center on Community Medicine, - there would seem to be great value in joint participation in the education aspects of that program.

There would be significant benefit for our students to have experience in that section of Nicaragua.

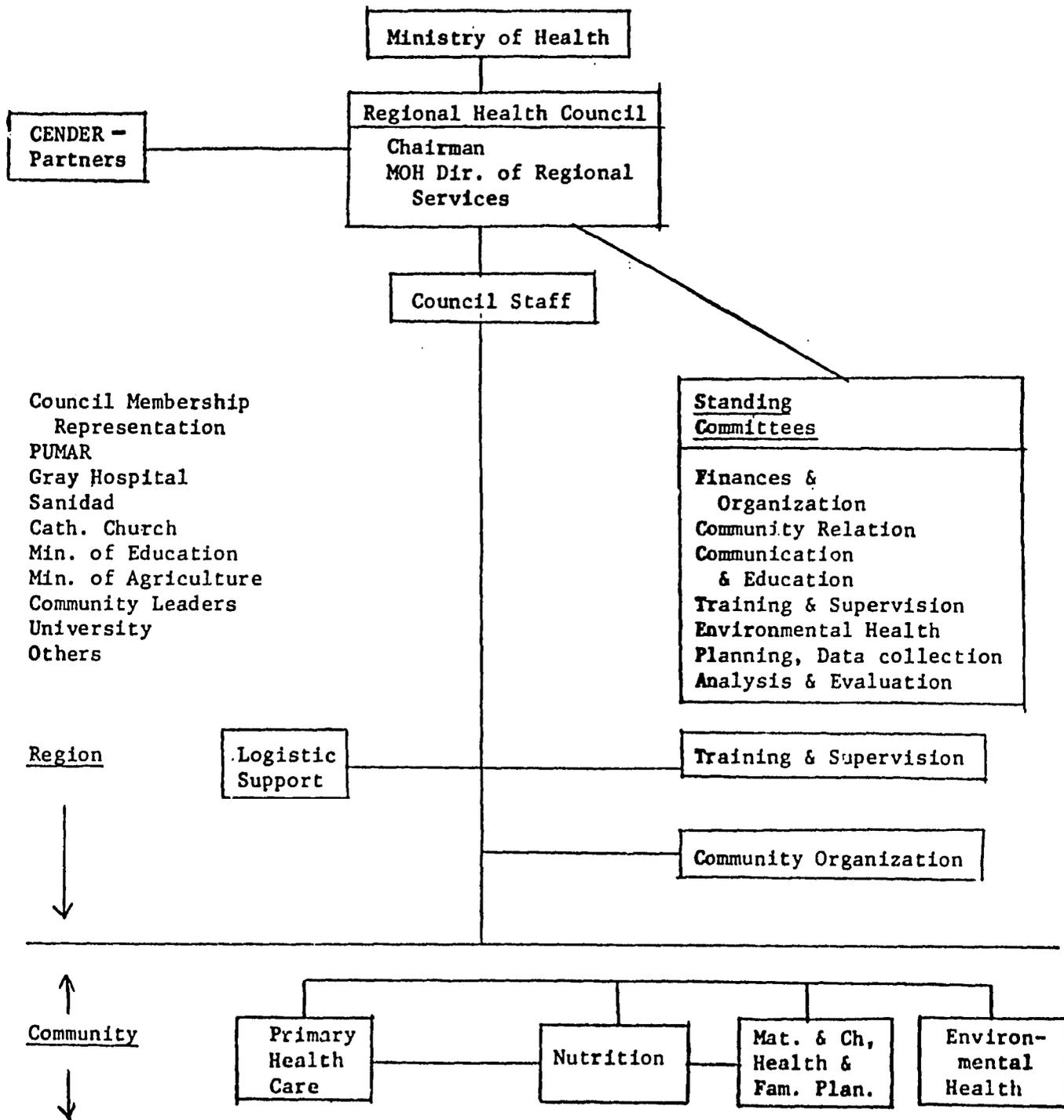
I hope satisfactory arrangements can be made in the near future for our students and faculty to work and learn with yours.

Sincerely,

JOSE TOMAS CAMPOS OCHOA, M. D.
Dean:

cc: Dr. José Cantón

Regional Health Services
Suggested Organization Chart



Budget Summary

	Year 1		Year 2		Year 3	
	AID	Other	AID	Other	AID	Other
I. Personnel	22,500	14,000	16,600	20,900	9,000	27,500
II. Equipment & Supplies	14,265	24,400	7,285	24,550	5,145	24,950
III. Course Development & Training	14,670	7,700	10,100	9,900	6,650	13,950
IV. Consultation	17,400	15,625	16,400	15,625	16,400	15,625
V. Travel	7,005	4,950	6,205	5,750	5,505	6,450
VI. Annual Meeting	1,000	500	1,000	500	1,000	500
VII. Evaluation	5,500	4,000	5,000	4,000	7,000	4,000
VIII. Radio Project	9,340	950	6,970	2,850	6,470	3,350
IX. Contingency	3,000	---	4,500	---	4,500	---
X. Wisconsin Partners Indirect Costs	5,000	---	5,000	---	5,000	---
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	99,680	72,125	79,060	84,075	66,670	96,325

Three Year Totals -

U.S. AID

MOH

Partners

\$245,410

\$196,050

\$56,475

BUDGET

	YEAR 1		YEAR 2		YEAR 3	
	AID	OTHER	AID	OTHER	AID	OTHER
I. PERSONNEL						
MOH Regional Dir. (a)		(5,000)		(5,000)		(5,000)
Proj. Administrator	4,100		3,100	(1,000)	2,100	(2,000)
Coordinator (b)						
Health Leaders	3,000		2,000	(1,000)	1,000	(2,000)
Midwives	3,000		2,000	(1,000)	1,000	(2,000)
Nutrition Leaders	3,000		2,000	(1,000)	1,000	(2,000)
Secretary (100%)	1,800		1,200	(0,600)	600	(1,200)
Asst. Secretary (50%)	1,000		600	(0,400)	400	(0,600)
Bookkeeper (75%)	1,800		1,200	(0,600)	600	(1,200)
Proj. Assistant (50%)	800		500	(0,300)	300	(0,500)
MOH & Med School Adv.		(6,000)		(7,000)		(8,000)
CENDER Counterpart Advisors		[3,000]		[3,000]		[3,000]
CENDER Coordinator 60% (c)	4,000		3,000			
SUBTOTALS:						
MOH		(11,000)		(17,900)		(24,500)
Partners		[3,000]		[3,000]		[3,000]
TOTALS:						
AID	22,500	14,000	16,600	20,900	9,000	27,500

-
- (a) Regional Director for Eastern Nicaragua, Regions 7 and 8. This position was recently created by MOH to facilitate regionalization.
 - (b) Coordinators would be Registered Nurses or with equivalent experience and training.
 - (c) CENDER Coordinator would spend a considerable amount of time early in the grant to assist in project description and development. Present Coordinator would have two (2) year's experience in the region and would be available for this responsibility.

Budget (Dollars)

I. <u>EQUIPMENT AND SUPPLIES</u>	YEAR 1		YEAR 2		YEAR 3	
	AID	OTHER	AID	OTHER	AID	OTHER
Truck (1)	7,200					
Fuel (2)	960		800	(250)	500	(650)
Repair & Insurance on Truck (3)	900		1,200		1,500	
Office Equipment (4)	485	[400]	285	[300]	285	[300]
Office Supplies & Services - in Nic.	1,500	(700)	1,600	(700)	1,600	(700)
in U.S.	700	[1,000]	800	[1,000]	800	[1,000]
Office Rent & Utilities (5)	850		900		950	
Transportation Equipment & Supplies in U.S. (6)		[1,500]		[1,500]		[1,500]
Transportation Services (Boats, Trucks, Planes) (7)	670	(4,500)	700	(4,500)	730	(4,500)
Latrine Supplies		(2,800)		(2,800)		(2,800)
Well Supplies (incl. pumps)		(3,500)		(3,500)		(3,500)
Vaccines		(10,000)		(10,000)		(10,000)
Tools	1,000		1,000		1,000	
SUBTOTALS:						
Min. Health		(21,500)		(21,750)		(22,150)
Wis. Partners		[2,900]		[2,800]		[2,300]
TOTALS:	14,265	24,400	7,285	24,550	5,145	24,250

- (1) Truck, 4 W Drive vehicle required for: a) Regular village visits; b) Administration; c) Includes transportation cost to Nicaragua.
- (2) Fuel, Cost truck operation 20¢/mile; Estimated 400 miles/month.
- (3) Insurance - \$400/year; Repair \$500 with increasing cost over time.
- (4) Office Equipment - Purchase of typewriter (manual), calculator, files, furniture, etc.
- (5) Rent and power and water pro-rated (available for use will be freezer, refrigerator, library).
- (6) Wisconsin Partners to be responsible for transportation of equipment and supplies within U.S.
- (7) Rental Services - Supplementary vehicles and other equipment must be rented. Nicaragua Air Force to provide air travel where necessary, \$2,400. Ministry of Health to provide travel via Nicaragua Air Line as required, \$2,000.

Budget (Dollars)

I. <u>COURSE DEVELOPMENT</u>	YEAR 1		YEAR 2		YEAR 3	
	AID	OTHER	AID	OTHER	AID	OTHER
<u>CURRICULUM:</u>						
A/V Equipment (8)	1,220	[700]	400	(600)	200	(800)
Library and References (9)	600	[600]	500	(500)	300	(600)
Printing and Duplication (10)	850		500	(100)	300	(200)
Translation (11)	1,900		1,300	(100)	800	(300)
<u>TRAINING:</u>						
Teaching Time (12)						
Moravian Hospital	750	450	650	400	550	200
Catholic Church	250	200	200	50	150	100
Sanidad & PUMAR(MOH)		(5,000)		(5,500)		(7,000)
Training Facilities (13)						
Moravian Hospital	200	100	200	100	100	(200)
Catholic Church	250	100	250	100	250	(100)
Equipment for Health Workers (14)	1,050	[550]	500	[450]	400	(450)
Training Courses Food, Travel, Lodging-Trainees (15)	7,600		5,600	(2,000)	3,600	(4,000)
<u>SUBTOTALS:</u>						
MOH		(5,000)		(8,800)		(13,650)
Partners & Churches		2,700		1,100		300
<u>TOTALS:</u>						
AID	14,670	7,700	10,100	9,900	6,650	13,950

(8) A/V Equipment including transportation

Overhead Projector - 200
 Slide Projector - 220
 Visual Maker - 150
 Screen - 100
 Tape Recorders (2) - 200
 @ 100
 Camera - 35 mm - 350
 with lenses \$1,220

Other needed A/V equipment to be obtained from U. Wis.
 Estimated value \$800

(9) Library and References

Subscription to 8 journals
@ 20 160
Textbooks and Manuals 440

U. of Wis. and Partners to
supplement library

(10) Printing and Duplicating

Copier 300
Mimeo Machine 450
Accessories 100

(11) Translation Service--For Spanish, Miskito, English
translation - per hour as required

(12) Staff time -

Nurses and technician from hospital provide teaching
services both at courses within hospital and on field
visits. One-half estimated costs are donated.

(13) Education Facilities

Lecture rooms; storage in hospital. Maintenance and
utilities paid by hospital; 1/2 estimated costs are
donated by hospital. Ministry of Health and Catholic
Church facilities also utilized.

(14) Basic equipment used by Health Workers; e.g., stethoscopes,
needles, syringes, steritigin equipment - \$35/Com x 30 = \$1,050
Ob kits obtained from UNICEF
Scales from Partners \$500
Equipment from Ministry of Health

(15) Cost for Courses

Trainee/Week cost for food & board \$20

Health Workers

10 - 4 week course 40 weeks
90 weeks
30 - 3 week cont. Ed/Yr 130 weeks

\$2,600

Nutrition Worker

10 - 3 week course 40
30 - 3 week cont. Ed/Yr 90
130 weeks

20
\$2,600

Midwives

10 - 3 week course 30
30 - 3 week cont. Ed/Yr 90
120 weeks

20
\$2,400

Totals - \$7,600

Budget (Dollars)

	Year 1		Year 2		Year 3	
	AID	Other	AID	Other	AID	Other
IV. <u>Consultation</u>						
Wisconsin/Nicaragua Partners (16)		[5,625]		[5,625]		[5,625]
U. Wis. Center for Health Sciences (17)	12,400		12,400		12,400	
Ministry of Health		(6,000)		(6,000)		(6,000)
Medical School (Leon)		(4,000)		(4,000)		(4,000)
Consultants (beyond Nicaragua - including travel)	5,000		4,000		4,000	
SUBTOTALS:						
MOH		(10,000)		(10,000)		(10,000)
Partners		5,625		5,625		5,625
TOTALS:	17,400	15,625	16,400	15,625	16,400	15,625

(16) Consultation services donated from within the State of Wisconsin those who would be traveling to Nicaragua and those who would assist within the state. Estimated per day value -

Within Wisconsin = 45 x 75	\$3,375
3 Consultants/Year to Nicaragua for 2 weeks	
@75	<u>2,250</u>
	\$5,625

(17) Univ. of Wisconsin
Technical Consultation Planning, Administration, Evaluation
Center for Health Sciences -

\$12,400 - 5 person months equivalents

Budget (Dollars)

	Year 1		Year 2		Year 3	
	AID	Other	AID	Other	AID	Other
VI. <u>Annual Meeting</u> (21)	1,000	(500)	1,000	(500)	1,000	(500)
SUBTOTALS:						
MOH		(500)		(500)		(500)
TOTALS:	1,000	500	1,000	500	1,000	500
VII. <u>Evaluation</u>						
Data Collection (22)	5,500	[2,000] (2,000)	5,000	[2,000] (2,000)	7,000	[2,000] (2,000)
SUBTOTALS:						
MOH		(2,000)		(2,000)		(2,000)
Partners		[2,000]		[2,000]		[2,000]
TOTALS:	5,500	4,000	5,000	4,000	7,000	4,000

(21) Annual Meeting
Food, housing, etc.,
20 for 2-3 days

\$1,000

(22) Data Collection to be conducted with Nicaragua and U.S. Medical Schools participation in both planning, collection analysis of data. Costs are estimates of personnel and supplies, travel.

Budget (Dollars)

	Year 1		Year 2		Year 3	
	AID	Other	AID	Other	AID	Other
VIII. <u>Radio Project</u>						
Transceivers (23)						
2 Units @ 600	1,200			(1,200)		(1,200)
Rental	720	[700]		[700]		[700]
Power Supplies	500		400	(100)	300	(200)
Antennas	250		250		150	(100)
Transportation of Equipment	250	(250)	250	(250)	250	(250)
Maintenance & Repair	500		600	(600)	300	(900)
Consultation (24)						
Engineer	2,935		2,935		2,935	
Communication	2,535		2,535		2,535	
SUBTOTALS:						
MOH		(250)		(2,150)		(2,650)
Partners		[700]		[700]		[700]
TOTALS:	9,340	950	6,970	2,850	6,470	3,350

(23) Clinic transceivers already on hand will be rented - Base Station equipment use provided by Partners.

(24) Engineer -			Communications -	
80/day x 20	\$1,100		60/day x 20	\$1,200
Per diem	735		Travel	600
Travel	600		Per diem	735
	<u>\$2,935</u>			<u>\$2,535</u>

ISSUES

Development of Health Services, PP Amendment #1

1. The evaluation and the PP amendment do not make a clear statement (in quantifiable terms) of progress made to date and progress expected over the life of the project. However, the evaluation does indicate, and discussions with recent visitors to Damascus, confirm that considerable progress has been made.

Recommendation: As a condition to approving the project amendment require that MSCI/USAID/SARG develop a detailed work plan for the remainder of the project. The work plan should describe the necessary steps in developing the desired capabilities within the MOH and the timing of MOH, MSCI, USAID and AID/W actions. The work plan should be in sufficient detail to be used as the basis for project evaluations and should be subject to AID/W review.

2. The PP Amendment doesn't call for an evaluation, rather it calls for a report from the planning advisor, prior to his departure, on progress made.

Recommendation: That the evaluation schedule in the FY 80 ABS, that calls for a project evaluation in July 1979 be followed. This evaluation should be based on the work plan.

3. Under the original PP, 9 vehicles were to be ordered for use in the survey. The amendment requests 4 additional vehicles thus providing one for each mohafazat. However, the survey is to start in only 5 mohafazats and if successful, will expand gradually to other locations.

Recommendation: That procurement of additional vehicles be authorized but that procurement not be initiated until it is assured that survey activities will expand into additional mohafazats.

4. Participant training is behind schedule. The amendment anticipates that after a 2 year academic program, students will return to the planning unit prior to the departure of the Planning Advisor. However, only 1 of the 5 trainees has good enough English to allow him to start his courses this September. If the other students enroll in 2 year courses they will return to Syria after the planning advisor has left Syria.

Recommendation: (1) attempt to arrange training programs that are less than 2 years long and/or mid-year entry into programs, (2) since English language capability appears to be a major constraint, investigate training opportunities in neighboring Arabic speaking countries, (3) since MSC I is doing most of the work of selecting participants and training programs, consideration should be given to conducting the training under their contract so that they could facilitate special arrangements with appropriate U.S. universities.

UNCLASSIFIED
Department of State

OUTGOING
TELEGRAM

PAGE 01 STATE 234523
ORIGIN AID-20

INFO OCT-01 SSO-00 /021 R

DRAFTED BY LA/DP: RA CLARKE: JS
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LA/DR: KMARTIN (INFO)
LA/DR: BSANDOVAL (INFO)
DESIRED DISTRIBUTION
9C ACTION LA CHRON 6 INFO FM 20P

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FILE : NICARAGUA
OPG:
E. COAST HEALTH

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FM SECSTATE WASHDC
TO AMEMBASSY MANAGUA IMMEDIATE

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UNCLAS STATE 234523

AIDAC

E. O. 11652: N/A

TAGS:

SUBJECT: ALLOTMENT INCREASES.

REF: STATE 189658

1. ALLOTMENT 424-50-524-00-69-71-PVO/OPG IS INCREASED BY 55,000.00 DOLS TO A NEW TOTAL AND OYB LEVEL OF 395,000.00 DOLS.

2. INCREASE IS FOR THE EAST COAST HEALTH DELIVERY PROJECT PVO/OPG, 524-0143 (WISCONSIN AND NICARAGUA PARTNERS OF THE AMERICAS).

3. ALLOTMENT 425-50-524-00-69-71-PVO/OPG IS INCREASED BY 20,000.00 DOLS TO A NEW TOTAL AND OYB LEVEL OF 363,000.00 DOLS.

4. INCREASE IS FOR THE REGIONAL EDUCATIONAL RADIO PROJECT, 524-0146 PVO/OPG.

5. CONGRESSIONAL NOTIFICATIONS UNDER SECTION 113 HAVE BEEN MET FOR THE ABOVE PROJECTS.

6. ALLOTMENT ADVICES FOLLOWS. CHRISTOPHER

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